

# The Environments of the Organization

**Collection Editor:**

William Frey



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# Chapter 1

## Course Materials: Syllabus, Rubrics, Jeopardies

### 1.1 Derived copy of Rubrics for Exams and Group Projects in Ethics<sup>1</sup>

#### 1.1.1 Key to Links

- The first link connects to the Ethics Bowl assignment for engineering and business students. It corresponds with the Ethics Bowl rubric displayed below.
- The second link connects to the module on developing reports on computing socio-technical systems. It outlines an assignment where computing students carry out an analysis of the impact of a computing system on a given socio-technical system. A rubric to this activity used in computer ethics classes is provided below.
- The third link to the Three Frameworks module corresponds to a rubric below that examines how well students deploy the frameworks on decision-making and problem-solving outlined by this module.
- The final link to Computing Cases provides the reader with access to Chuck Huff's helpful advice on how to write and use rubrics in the context of teaching computer ethics.

#### 1.1.2 Introduction

This module provides a range of assessment and study materials used in classes in business, engineering and computer ethics. Rubrics will help you understand the standards that will be used to assess your writing in essay exams and group projects. They also help your instructor stay focused on the same set of standards when assessing the work of the class. Jeopardy exercises will help focus your study efforts and help you to identify your strengths and weaknesses as you prepare for class exams. A copy of the course syllabus has been included in case you lose the copy given to you in the first class. As the semester progresses, expect this module to change and eventually fulfill the function of serving as a portal to other modules and online materials relevant to this and other classes.

#### 1.1.3 Revised Schedule for Fall 2011

##### Revised Schedule for Fall 2011

[MEDIA OBJECT]<sup>2</sup>

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m36712/1.25/>>.

<sup>2</sup>This media object is a downloadable file. Please view or download it at  
<Revised Schedule\_V2.pptx>

### 1.1.4 Course Syllabi

#### Syllabus for Environments of the Organization

[MEDIA OBJECT]<sup>3</sup>

#### Syllabus for Business, Society, and Government

[MEDIA OBJECT]<sup>4</sup>

#### Environment of the Organization Course Syllabus Spring 2011

[MEDIA OBJECT]<sup>5</sup>

#### Environment of Organization Course Syllabus, Spring 2012, short version

[MEDIA OBJECT]<sup>6</sup>

#### ADMI 4016 Syllabus Fall 2012 Short Form

[MEDIA OBJECT]<sup>7</sup>

#### Environment of Organization Syllabus F2012–Long Form

[MEDIA OBJECT]<sup>8</sup>

#### Environment of Organization Syllabus Spring 2013

[MEDIA OBJECT]<sup>9</sup>

#### Environment of Organization Syllabus Fall 2013

[MEDIA OBJECT]<sup>10</sup>

#### Environment of Organization Syllabus Spring 2014

[MEDIA OBJECT]<sup>11</sup>

#### Environment of Organization Syllabus Fall 2014

[MEDIA OBJECT]<sup>12</sup>

#### ADMI 4016 Syllabus Spring 2015

[MEDIA OBJECT]<sup>13</sup>

#### ADMI 4016 Syllabus Fall 2015

[MEDIA OBJECT]<sup>14</sup>

#### Environment of Organization Syllabus, Spring 2016

[MEDIA OBJECT]<sup>15</sup>

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<sup>3</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_F10.docx>

<sup>4</sup>This media object is a downloadable file. Please view or download it at  
<GERE6055\_F10.docx>

<sup>5</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_S11.docx>

<sup>6</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_S12\_short.docx>

<sup>7</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_S12\_short-3.docx>

<sup>8</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_S12.docx>

<sup>9</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_S13\_short\_2.docx>

<sup>10</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_F13\_short.docx>

<sup>11</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_S14\_short.docx>

<sup>12</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_F14\_short-2.docx>

<sup>13</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_S15\_short-2.docx>

<sup>14</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_F15\_short.docx>

<sup>15</sup>This media object is a downloadable file. Please view or download it at  
<ADMI4016\_S16\_short.docx>



### 1.1.5 Syllabi for ADMI 3009: Introduction to Business, Management, and Ethics

[MEDIA OBJECT]<sup>16</sup>

### 1.1.6 First Class: Student Survey

#### Directions:

On a sheet of paper answer the following questions. You may write in English or Spanish.

1. Your name
2. Your area of academic concentration or major
3. Reason for taking this course (besides that it may be required for your area)
4. Have you studied (business) ethics at this university or another university as (a) a freestanding course, (b) an out-of-curriculum activity (student association), (c) a module, unit or activity integrated into some other course
5. How would you define business ethics?
6. What do you expect to learn in this course?
7. How, at this point, would you rate your communication skills? Beginning, Intermediate, or Advanced?
8. How would you rate your abilities in English regarding speaking, understanding, and writing? Beginning, Intermediate, or Advanced?
9. Describe what has been your worst experience working in a group or team. Why was it bad, difficult, or unsatisfying?
10. What is the best educational experience you have had in the past, i.e., the one from which you have learned the most or learned something that matters greatly to you?

### 1.1.7 Case Table and Information

#### Table Outlining Cases and Associated Concepts

[MEDIA OBJECT]<sup>17</sup>

### 1.1.8 ADEM Statement of Values

#### Presentation on Values and Contracts

[MEDIA OBJECT]<sup>18</sup>

### 1.1.9 Basic and Intermediate Moral Concepts: Summary Tables

These tables provide summaries of basic moral concepts and intermediate moral concepts. These summaries need to be completed by seeing the concept in a specific case. Basic moral concepts include right, duty, virtue, good, and responsibility. These cut across different practical disciplines in which ethics enters such as business, engineering, and computing. Intermediate moral concepts are specific to a given practical discipline. In the Environment of the Organization, you will study privacy, intellectual property, free speech, responsibility, safety, corporate social responsibility, and responsible dissent. Privacy will be introduced in Toysmart but continue on through Biomatrix, Therac, Hughes, and Drummond. Free Speech will be explored in terms of transferring information in Toysmart, defamation in Biomatrix, informed consent in Therac, and responsible dissent in Hughes. These tables provide summaries to get you started on the concepts but a full understanding requires you see them in the context of a specific case.

<sup>16</sup>This media object is a downloadable file. Please view or download it at  
<ADMI3009\_F16.docx>

<sup>17</sup>This media object is a downloadable file. Please view or download it at  
<Class Table.docx>

<sup>18</sup>This media object is a downloadable file. Please view or download it at  
<Introduction to Social Contracts and the ADEM Values.pptx>

**Basic Moral Concepts for Business**[MEDIA OBJECT]<sup>19</sup>**Intermediate Moral Concepts for Business**[MEDIA OBJECT]<sup>20</sup>**1.1.10 Rubrics Used in Connexions Modules Published by Author****Ethical Theory Rubric**

This first rubric assesses essays that seek to integrate ethical theory into problem solving. It looks at a rights based approach consistent with deontology, a consequentialist approach consistent with utilitarianism, and virtue ethics. The overall context is a question presenting a decision scenario followed by possible solutions. The point of the essay is to evaluate a solution in terms of a given ethical theory.

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**Ethical Theory Integration Rubric**

This media object is a downloadable file. Please view or download it at  
 <EE\_Midterm\_S05\_Rubric.doc>

**Figure 1.1:** This rubric breaks down the assessment of an essay designed to integrate the ethical theories of deontology, utilitarianism, and virtue into a decision-making scenario.

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**Decision-Making / Problem-Solving Rubric**

This next rubric assess essays that integrate ethical considerations into decision making by means of three tests, reversibility, harm/beneficence, and public identification. The tests can be used as guides in designing ethical solutions or they can be used to evaluate decision alternatives to the problem raised in an ethics case or scenario. Each theory partially encapsulates an ethical approach: reversibility encapsulates deontology, harm/beneficence utilitarianism, and public identification virtue ethics. The rubric provides students with pitfalls associated with using each test and also assesses their set up of the test, i.e., how well they build a context for analysis.

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**Integrating Ethics into Decision-Making through Ethics Tests**

This media object is a downloadable file. Please view or download it at  
 <CE\_Rubric\_S06.doc>

**Figure 1.2:** Attached is a rubric in MSWord that assesses essays that seek to integrate ethical considerations into decision-making by means of the ethics tests of reversibility, harm/beneficence, and public identification.

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<sup>19</sup>This media object is a downloadable file. Please view or download it at  
 <BMC\_V3.docx>

<sup>20</sup>This media object is a downloadable file. Please view or download it at  
 <IMC\_V2.docx>

### **Ethics Bowl Follow-Up Exercise Rubric**

Student teams in Engineering Ethics at UPRM compete in two Ethics Bowls where they are required to make a decision or defend an ethical stance evoked by a case study. Following the Ethics Bowl, each group is responsible for preparing an in-depth case analysis on one of the two cases they debated in the competition. The following rubric identifies ten components of this assignment, assigns points to each, and provides feedback on what is less than adequate, adequate, and exceptional. This rubric has been used for several years to evaluate these group projects

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#### **In-Depth Case Analysis Rubric**

This media object is a downloadable file. Please view or download it at  
<EE\_FinalRubric\_S06.doc>

**Figure 1.3:** This rubric will be used to assess a final, group written, in-depth case analysis. It includes the three frameworks referenced in the supplemental link provided above.

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### **Rubric for Good Computing / Social Impact Statements Reports**

This rubric provides assessment criteria for the Good Computing Report activity that is based on the Social Impact Statement Analysis described by Chuck Huff at [www.computingcases.org](http://www.computingcases.org). (See link) Students take a major computing system, construct the socio-technical system which forms its context, and look for potential problems that stem from value mismatches between the computing system and its surrounding socio-technical context. The rubric characterizes less than adequate, adequate, and exceptional student Good Computing Reports.

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#### **Good Computing Report Rubric**

This media object is a downloadable file. Please view or download it at  
<CE\_FinalRubric\_S06.doc>

**Figure 1.4:** This figure provides the rubric used to assess Good Computing Reports in Computer Ethics classes.

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Computing Cases provides a description of a Social Impact Statement report that is closely related to the Good Computing Report. Value material can be accessed by looking at the components of a Socio-Technical System and how to construct a Socio-Technical System Analysis.<sup>21</sup>

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<sup>21</sup><http://www.computingcases.org>

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### Business Ethics Midterm Rubric Spring 2008

This media object is a downloadable file. Please view or download it at  
<Midterm Rubric Spring 2008.doc>

**Figure 1.5:** Clicking on this link will open the rubric for the business ethics midterm exam for spring 2008.

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#### 1.1.11

Insert paragraph text here.

#### 1.1.12 Study Materials for Environments of Organization

This section provides models for those who would find the Jeopardy game format useful for helping students learn concepts in business ethics and the environments of the organization. It incorporates material from modules in the Business Course and from *Business Ethics and Society*, a textbook written by Anne Lawrence and James Weber and published by McGraw-Hill. Thanks to elainefitzgerald.com for the Jeopardy template.

##### Jeopardy: Business Concepts and Frameworks

[MEDIA OBJECT]<sup>22</sup>

##### Jeopardy: New Game for First Exam, Spring 2011

[MEDIA OBJECT]<sup>23</sup>

[MEDIA OBJECT]<sup>24</sup>

##### Privacy, Property, Free Speech, Responsibility

[MEDIA OBJECT]<sup>25</sup>

##### Jeopardy for EO Second Exam

[MEDIA OBJECT]<sup>26</sup>

##### Jeopardy 5

[MEDIA OBJECT]<sup>27</sup>

##### Jeopardy 6

[MEDIA OBJECT]<sup>28</sup>

##### Jeopardy7

[MEDIA OBJECT]<sup>29</sup>

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<sup>22</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy1Template.pptx>

<sup>23</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy\_V1a.pptx>

<sup>24</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy2.pptx>

<sup>25</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy\_3.pptx>

<sup>26</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy4a.pptx>

<sup>27</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy5.pptx>

<sup>28</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy6.pptx>

<sup>29</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy7.pptx>

## **Jeopardy on Responsibility**

[MEDIA OBJECT]<sup>30</sup>

### **1.1.13 Revised Jeopardies for ADMI 4016, Fall 2011 to Present**

#### **Jeopardy for Problem Solving**

[MEDIA OBJECT]<sup>31</sup>

#### **Jeopardy for Toysmart, Privacy, Property, and Informed Consent**

[MEDIA OBJECT]<sup>32</sup>

#### **Jeopardy and Gilbane Gold**

[MEDIA OBJECT]<sup>33</sup>

### **1.1.14 More Jeopardies: Beginning Fall 2012**

#### **Jeopardy on Syllabus as Contract, Mountain Terrorist Exercise, and Values-Based Decision-Making**

[MEDIA OBJECT]<sup>34</sup>

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<sup>30</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy\_Responsibility.pptx>

<sup>31</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy Problem Solving.pptx>

<sup>32</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy IMC Test 1.pptx>

<sup>33</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy and Gilbane Gold.pptx>

<sup>34</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy1\_F12.pptx>



## Chapter 2

# Ethical Environment

### 2.1 An Exercise in Ethics Across the Curriculum<sup>1</sup>

#### 2.1.1 Module Links: A Guide

- This module is built around three shorts videos. These are listed to the right as prerequisite links.
- **Mega Weapons Part One** introduces you to the background of the case. It is put in closed caption and the script is just below.
- **Mega Weapons: the Interview** should be viewed after the introduction to the case. Here Jorge accepts the interview and faces the question of whether he is pacifist.
- **Teaching Mega Weapons** consists of a pedagogical demonstration of this module carried out on January 23, 2013. It summarizes activities and discussions that occurred during a fifty-minute class. The objectives of the demo are to show that the module can serve to introduce students to ethical decision making in a fifty minute class and also provides an example of what can occur as students discuss this case.
- Other links can help students who are interested find background information on the ethics tests. Kelly's Cosmetic Surgery applies the tests to a case taken from the APPE ethics bowl. Michael Davis discusses the tests in detail, places them alongside other tests, shows how these tests function in a larger decision-making framework, and argues in this paper that the tests serve as a useful basis for introducing moral reasoning.

#### 2.1.2 Meta Weapons Script

PART I: Inside Jorge's Kitchen—Day JORGE is sitting at the kitchen table with his laptop. He is looking online for job openings. Scattered around the computer are bills, letters of rejection, and job application forms. There is also a flyer from a Pacifist organization. The phone rings.

ANTONIO, JORGE'S friend, is calling. . . JORGE: Hey Antonio! How are you? (Reduce pause if possible) ANTONIO: I'm good. How about you? JORGE: I'm okay. But the job hunt isn't going well. ANTONIO: Maybe I can help. I know of a job opening that fits your skills. Mega Weapons is looking for someone with your expertise to develop the guidance system for their new generation of Smart Bombs. JORGE: Wait a minute! These are bombs. They are designed to kill people. And no matter how smart they are, they are going to kill innocent people, civilians. Calling it "collateral damage" doesn't erase the fact that you are asking me to become a willing accomplice to the killing of innocent people!

ANTONIO: But here is where you can make a difference. The better designed these bombs are, the more accurate their guidance systems, the less likely they will kill innocent people. (Reduce pause) By putting your skills to work here, you can promote the cause of Pacifism (accent first syllable) by minimizing the

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m45677/1.7/>>.

chances of unintentional harm. (Reduce pause if possible) And if you think that there aren't some real war mongers waiting in the wings to take this job, you're being naïve. You need to realize that you live in the real world, not some utopia where everybody loves one another and peace rules. JORGE: You're twisting things. I am a Pacifist. How can I remain true to my beliefs if I am using my engineering skills to make war? You're asking me to go against my basic principles.

ANTONIO: Okay. I'm not trying to make you into a war monger. But you have got to support your family. Let me get you an interview. You can talk things over with them. Find out exactly what they want. It may be possible that you can square your conscience with the job they are offering. What do you say? For the sake of your wife and children. JORGE: Okay. I'll do the interview. But I'm not going against my conscience. If they ask me about my views on war, I'm not holding anything back. I'm a Pacifist—not a war-monger! ANTONIO: Right. I wouldn't think of asking you to go against your basic beliefs. They probably won't bring the subject up in the interview. I'll set up an interview and get back to you. Talk to you later.

JORGE becomes thoughtful. He needs a job but at what personal cost? He thinks aloud... JORGE: What if they ask me about my views on war? I would have to tell them the truth. But it could get ugly. What did I let Antonio talk me into this?

His wife arrives. She walks through the living room to the kitchen. There she meets Jorge. CARMEN: Hello Jorge, I'm home. (Replace old version with this) JORGE: Hello Carmen. Guess what? I just finished talking with Antonio. He told me about a job opening at Mega Weapons. CARMEN: That's great! (Remove awesome.) JORGE: He thinks he can get me an interview but I'm not sure. It is defense related. I would be working on the guidance systems for their "smart bombs." Can't engineers do something besides make weapons? CARMEN: Look Jorge. You know I support your Pacifism. But I can't continue indefinitely as a waitress. I've had to drop out of college, and when I finish my shift I just want to collapse. I can't keep doing this. I need to spend more time with our children. I'd like to go back to school and get my degree. CARMEN: Look Jorge. I know how important Pacifism is to you. But I cannot continue to support our family with my current job. I've had to drop out of college. I want to spend more time with our children. I need to go back to school and continue to work on my degree. Just go to the interview. Hear what they have to say. Then we can make a decision together.

### 2.1.3 Exercise One

#### Directions

- Listen to the animated case, Mega Weapons. You can find it on the link displayed above.
- Next read the script presented above. This contains all the dialogue used in the animation.
- Write a short essay responding to the issues presented just below. You may write this out by hand or type it. And your response can be in English or Spanish.
- You are Jorge. You share his pacifism, his expertise, and his need to find work
- **How do your frame your problem?** Is it legal, financial, managerial, technical (engineering), personal, or ethical? (It might fall under more than one frame.)
- **Make a decision. Explain and justify your decision.** Should you tell your friend, Antonio, that you would like an interview with Mega Weapons?
- If so, how do you think you should deal with the issue of your pacifism. If not, what would you say to Carmen, your wife, to explain your decision.
- You will turn your essay in during the next class. Be prepared to share your thoughts with your classmates.

#### Link to animation in case link above doesn't work

[http://goanimate.com/videos/0mVZ1dhZOBjM?utm\\_source=linkshare](http://goanimate.com/videos/0mVZ1dhZOBjM?utm_source=linkshare)



### 2.1.4 Exercise Two

**Solution Evaluation Matrix**

Solution or Alternative	Reversibility	Harm	Publicity
<b>Alternative One</b> (Your solution)			
<b>Alternative Two</b> (A contrastive Solution)			

**Table 2.1**

**Write an essay that responds to the following:**

1. You are Jorge. During the interview with the Mega Weapons personnel officer, he asks the "bleeding heart pacifist" question.
2. How should you respond to the question? In particular, should you identify yourself as a pacifist or withhold this information?
3. Construct a solution evaluation matrix where you compare your answer with a different, contrary solution. The above table is an example of a solution evaluation matrix. Write out your solution. Then in the row of the solution, write in the cell under the test how that solution stands in relation to the test. You can pass-fail, assign a number, or assign a letter grade. But be sure to indicate what fact was most important in your evaluation under the test in question. For example, alternative one failed the reversibility test because it failed to treat a key stakeholder with respect.
4. Below your solution evaluation matrix, provide an account in paragraph form of how your solution stands with the three ethics tests: reversibility, harm, and publicity.
5. Discuss constraints (resource, interest, technical) that may make it difficult to realize or implement your solution.

### 2.1.5 Study Materials: Presentation and Jeopardy

**Jeopardy for Ethics Tests**

[MEDIA OBJECT]<sup>2</sup>

**Presentation on Ethics Tests**

[MEDIA OBJECT]<sup>3</sup>

## 2.2 Theory Building Activities: Mountain Terrorist Exercise<sup>4</sup>

### 2.2.1 Module Introduction

This module poses an ethical dilemma, that is, a forced choice between two bad alternatives. Your job is to read the scenario and choose between the two horns of the dilemma. You will make your choice and then justify it in the first activity. In the second activity, you will discuss your choice with others. Here, the objective is to reach consensus on a course of action or describe the point at which your group's progress toward consensus stopped. The Mountain Terrorist Exercise almost always generates lively discussion and helps us to reflect on of our moral beliefs. Don't expect to reach agreement with your fellow classmates quickly or effortlessly. (If you do, then your instructor will find ways of throwing a monkey wrench into the whole process.) What is more important here is that we learn how to state our positions clearly, how to

<sup>2</sup>This media object is a downloadable file. Please view or download it at <Jeopardy1\_F12.pptx>

<sup>3</sup>This media object is a downloadable file. Please view or download it at <Ethics Tests.pptx>

<sup>4</sup>This content is available online at <<http://cnx.org/content/m13764/1.12/>>.

listen to others, how to justify our positions, and how to assess the justifications offered by others. In other words, we will all have a chance to practice the virtue of reasonableness. And we will learn reasonableness not when it's easy (as it is when we agree) but when it becomes difficult (as it is when we disagree).

The second half of this module requires that you reflect carefully on your moral reasoning and that of your classmates. The Mountain Terrorist Exercise triggers the different moral schemas that make up our psychological capacity for moral judgment. Choosing one horn of the dilemma means that you tend to favor one kind of schema while choosing the other horn generally indicates that you favor another. The dominant moral theories that we will study this semester provide detailed articulations and justifications of these moral schemas. Reflecting on your choice, the reasons for your choice, and how your choice differs from that of your classmates will help you get started on the path of studying and effectively utilizing moral theory.

The following scenario comes originally from the philosopher, Bernard Williams. It is also presented in introductory ethics textbooks (such as Geoffrey Thomas' *An Introduction to Ethics*). The first time this module's author became aware of its use in the classroom was in a workshop on Agriculture Ethics led by Paul Thompson, then of Texas A&M University, in 1992.

### 2.2.2 Moral Theories Highlighted

1. Utilitarianism: the moral value of an action lies in its consequences or results
2. Deontology: the moral value of an action lies, not in its consequences, but in the formal characteristics of the action itself.
3. Virtue Ethics: Actions sort themselves out into virtuous or vicious actions. Virtuous actions stem from a virtuous character while vicious actions stem from a vicious or morally flawed character. Who we are is revealed through what we do.

### 2.2.3 Mountain Terrorist Scenario

You are in a remote mountain village. A group of terrorists has lined up 20 people from the village; they plan on shooting them for collaborating with the enemy. Since you are not from the village, you will not be killed. Taking advantage of your position, you plead with the terrorists not to carry out their plan. Finally, you convince the leader that it is not necessary to kill all 20. He takes a gun, empties it of all its bullets except one, and then hands it to you. He has decided to kill only one villager to set an example to the rest. As an honored guest and outsider, you will decide who will be killed, and you will carry out the deed. The terrorists conclude with a warning; if you refuse to kill the villager, then they will revert back to the original plan of killing all 20. And if you try any "funny business," they will kill the 20 villagers and then kill you. What should you do?

#### Your Options

1. Take the gun, select a villager, and kill him or her.
2. Refuse the terrorists' offer and walk away from the situation.

#### Spanish Translation by Dr. Halley Sanchez

El Terrorista de la Montaña Tú eres un antropólogo que por un mes ha estado viviendo con y observando (o sea, estudiando) a los residentes de una aldea en una area remota montañosa de un país en América Latina. El día que te dispones a irte de la aldea, aparece un grupo de hombres armados que reúnen a los aldeanos y les anuncian que se han enterado de que ellos han estado cooperando con el gobierno represivo y que, como lección, han de ejecutar a veinte de ellos. El líder de los terroristas te mira y te dice que tú puedes ir, ya que no estás involucrado en la lucha patriótica y que ellos no están en la costumbre de tomar rehenes extranjeros. Debido a que te da la impresión de que el líder de los supuestos patriotas (terroristas?) es un hombre educado, tú te atreves a tratar de razonar con él. Le explica que llevas un mes en la aldea y que los aldeanos no han cooperado de forma voluntaria con el gobierno. Sí, por supuesto, las tropas del gobierno pasaron por la aldea y confiscaron algunas provisiones, pero los aldeanos no se las dieron libremente sino que estaban indefensos y no pudieron prevenir que le confiscaran las mismas. El líder piensa un tiempo y te dice

que por tú ser forastero y obviamente un antropólogo estudioso, te va a dar el beneficio de la duda, y que por tanto no van a ejecutar viente aldeanos. Pero dado que la lucha patriótica está en un proceso crítico y que la aldea sí le proveyó provisiones al gobierno, por el bien de la lucha patriótica y el bien de la humanidad, es menester darle una lección a la aldea. Así que tan sólo han de ejecutar un aldeano. Más, como huesped, tú has de escoger quién ha de morir y tú has de matarlo tú mismo. Te da una pistola con una sola bala y te dice que proceda, mientras que a la vez te advierte que de tratar algo heroico, te ejecutarán inmediatamente y procederán a ejecutar a los viente aldeanos como dijeron al comienzo. Tú eres el antropólogo. ¿Qué harás?

### Activity 1

In a short essay of 1 to 2 pages describe what you would do if you were in the position of the tourist. Then justify your choice.

### Activity 2

Bring your essay to class. You will be divided into small groups. Present your choice and justification to the others in your group. Then listen to their choices and justifications. Try to reach a group consensus on choice and justification. (You will be given 10-15 minutes.) If you succeed present your results to the rest of the class. If you fail, present to the class the disagreement that blocked consensus and what you did (within the time limit) to overcome it.

## 2.2.4 Taxonomy of Ethical Approaches

There are many ethical approaches that can be used in decision making. The Mountain Terrorist Exercise is based on an artificial scenario designed to separate these theoretical approaches along the lines of the different "horns" of a dilemma. Utilitarians tend to choose to shoot a villager "in order to save 19." In other words they focus their analysis on the consequences of an action alternative and choose the one that produces the least harm. Deontologists generally elect to walk away from the situation. This is because they judge an action on the basis of its formal characteristics. A deontologist might argue that killing the villager violates natural law or cannot be made into a law or rule that consistently applies to everybody. A deontologist might say something like, "What right do I have to take another person's life?" A virtue ethicists might try to imagine how a person with the virtue of courage or integrity would act in this situation. (Williams claims that choosing to kill the villager, a duty under utilitarianism, would undermine the integrity of a person who abhorred killing.)

### Table Connecting Theory to Domain

1. Row 1: Utilitarianism concerns itself with consequences. It claims that the moral value of an action is "colored" by its results. The harm test, which asks us to choose the least harmful alternative, encapsulates or summarizes this theoretical approach. The basic principle of utilitarianism is the principle of utility: choose that action that produces the greatest good for the greatest number. Utilitarians would shoot a villager in order to save 19. But Utilitarianism, like other forms of consequentialism, has prediction challenges. What are the short-, middle-, and long-term consequences of an action? These become harder to determine the further we are from the present.
2. Row 2: Npn-consequentialism turns away from consequences to focus on the formal characteristics of an action. (For example, Kant says the good action is one that does duty for duty's sake.) Deontology, a kind of non-consequentialism, helps us to identify and justify rights along with their correlative duties. The reversibility test summarizes deontology by asking the question, "Does your action still work if you switch (=reverse) roles with those on the receiving end?" Deontology has two formulations of its fundamental principle. The **Categorical Imperative** exhorts us to act only on that maxim which can be converted into a universal law. The **Formula of the End** proscribes that we "treat others always as ends, never merely as means," The rights that represent special cases of treating people as ends and not merely as means include (a) informed consent, (b) privacy, (c) due process, (d) property, (e) free speech, and (f) conscientious objection. The deontologist would choose not to kill a villager because the act of killing is formally wrong.
3. Row 3: Virtue ethics turns away from the action and focuses on the agent, the person performing the action. The word, "Virtue," refers to different sets of skills and habits cultivated by agents. These skills

and habits, consistently and widely performed, support, sustain, and advance different occupational, social, and professional practices. (See MacIntyre, *After Virtue*, and Solomon, *Ethics and Excellence*, for more on the relation of virtues to practices.) The public identification test summarizes this approach: an action is morally acceptable if it is one with which I would willingly be publicly associated given my moral convictions. Individual virtues that we will use this semester include integrity, justice, responsibility, reasonableness, honesty, trustworthiness, and loyalty.

- These different approaches are meant to work together. Each gives us insight into different dimensions of the problematic situation. Utilitarianism and deontology both focus on the action. Utilitarianism uses consequences to evaluate the action while deontology evaluates an action in terms of its underlying motive and its formal characteristics.
- Virtue ethics turns away from the action to focus on the agent. It asks us to determine what the action says about the character or person of the agent. If the action is irresponsible, then the agent is irresponsible. Virtue ethics can be implemented by projecting a moral exemplar into the situation. You might ask, "What would so-and-so do in this situation?" if this person were your mentor, a person you admire, or a moral exemplar. Or you might examine virtues that are realized through your action. For example, Williams says that taking the life of a villager might seriously disrupt or corrupt your integrity.
- The capability approach takes a still different focus on the situation by having us bring into view those factors in the situation which could empower or impede the expression of human capabilities like thought, imagination, movement, health, and life.

#### Covering All the Bases

Theory Category	Ethical Approach	Ethics Test	Basic Principles	Action in MT Scenario
Consequentialism	Utilitarianism	Harm Test	Principle of Utility: greatest good for greatest number	Shoot 1 villager to save 19
Non-consequentialism	Deontology: right theory or duty theory	Reversibility Test: view action from receiving end	<b>Categorical Imperative:</b> act on maxim which can be universal law; <b>Formula of end:</b> treat persons as ends, not merely as means	Do not take gun; leave village
<i>continued on next page</i>				

Character-Based	Virtue Ethics	Publicity Test	Virtue is the means between extremes of excess and defect	Do the honorable thing
Human Functioning	Capability Approach	Check if action expands or contracts substantive freedoms	Substantive freedoms composing a life of dignity; beings and doings essential to eudaimonia	Choose that action that expands freedom and secures dignity

Table 2.2: Table 1

### 2.2.5 Comments on the Relation Between Ethical Approaches

The Mountain Terrorist Exercise has, in the past, given students the erroneous idea that ethical approaches are necessarily opposed to one another. As one student put it, "If deontology tells us to walk away from the village, then utilitarianism must tell us to stay and kill a villager because deontology and utilitarianism, as different and opposed theories, always reach different and opposed conclusions on the actions they recommend." The Mountain Terrorist dilemma was specially constructed by Bernard Williams to produce a situation that offered only a limited number of alternatives. He then tied these alternatives to different ethical approaches to separate them precisely because in most real world situations they are not so readily distinguishable. Later this semester, we will turn from these philosophical puzzles to real world cases where ethical approaches function in a very different and mostly complimentary way. As we will see, ethical approaches, for the most part, converge on the same solutions. For this reason, this module concludes with 3 meta-tests. When approaches converge on a solution, this strengthens the solution's moral validity. When approaches diverge on a solution, this weakens their moral validity. A third meta-test tells us to avoid framing all ethical problems as dilemmas (=forced choices between undesirable alternatives) or what Carolyn Whitbeck calls "multiple-choice" problems. You will soon learn that effective moral problem solving requires moral imagination and moral creativity. We do not "find" solutions "out there" ready made but design them to harmonize and realize ethical and practical values.

#### Meta-Tests

- **Divergence Test:** When two ethical approaches differ on a given solution, then that difference counts against the strength of the solution. Solutions on which ethical theories diverge must be revised towards convergence.
- **Convergence Test:** Convergence represents a meta-test that attests to solution strength. Solutions on which different theoretical approaches converge are, by this fact, strengthened. Convergence demonstrates that a solution is strong, not just over one domain, but over multiple domains.
- **Avoid Framing a Problem as a Dilemma.** A dilemma is a no-win situation that offers only two alternatives of action both of which are equally bad. (A trilemma offers three bad alternatives, etc.) Dilemmas are better dissolved than solved. Reframe the dilemma into something that admits of more than two no-win alternatives. Dilemma framing (framing a situation as an ethical dilemma) discourages us from designing creative solutions that integrate the conflicting values that the dilemma poses as incompatible.

### 2.2.6 Module Wrap-Up

1. **Reasonableness and the Mountain Terrorist Exercise.** It may seem that this scenario is the last place where the virtue of reasonableness should prevail, but look back on how you responded to those

of your classmates who chose differently in this exercise and who offered arguments that you had not initially thought of. Did you "listen and respond thoughtfully" to them? Were you "open to new ideas" even if these challenged your own? Did you "give reasons for" your views, modifying and shaping them to respond to your classmates' arguments? Did you "acknowledge mistakes and misunderstandings" such as responding critically and personally to a classmate who put forth a different view? Finally, when you turned to working with your group, were you able to "compromise (without compromising personal integrity)"? If you did any or all of these things, then you practiced the virtue of reasonableness as characterized by Michael Pritchard in his book, *Reasonable Children: Moral Education and Moral Learning* (1996, University of Kansas Press, p. 11). Congratulate yourself on exercising reasonableness in an exercise designed to challenge this virtue. You passed the test.

2. **Recognizing that we are already making ethical arguments.** In the past, students have made the following arguments on this exercise: (a) I would take the gun and kill a villager in order to save nineteen; (b) I would walk away because I don't have the right to take another's life; (c) While walking away might appear cowardly it is the responsible thing to do because staying and killing a villager would make me complicit in the terrorists' project. As we discussed in class, these and other arguments make use of modes of thought captured by ethical theories or approaches. The first employs the consequentialist approach of utilitarianism while the second makes use of the principle of respect that forms the basis of our rights and duties. The third works through a conflict between two virtues, courage and responsibility. This relies on the virtue approach. One accomplishment of this exercise is to make you aware of the fact that you are already using ethical arguments, i.e., arguments that appeal to ethical theory. Learning about the theories behind these arguments will help you to make these arguments more effectively.
3. **Results from Muddy Point Exercises** The Muddy Point Exercises you contributed kept coming back to two points. (a) Many of you pointed out that you needed more information to make a decision in this situation. For example, who were these terrorists, what causes were they fighting for, and were they correct in accusing the village of collaborating with the enemy? Your request for more information was quite appropriate. But many of the cases we will be studying this semester require decisions in the face of uncertainty and ignorance. These are unavoidable in some situations because of factors such as the cost and time of gathering more information. Moral imagination skillfully exercised can do a lot to compensate when all of the facts are not in. (b) Second, many of you felt overly constrained by the dilemma framing of the scenario. Those of you who entered the realm of "funny business" (anything beyond the two alternatives of killing the villager or walking away) took a big step toward effective moral problem solving. By rejecting the dilemma framing of this scenario, you were trying to reframe the situation to allow for more—and more ethically viable—alternatives. Trying to negotiate with the Terrorists is a good example of reframing the scenario to admit of more ethical alternatives of action than killing or walking away.
4. Congratulations on completing your first ethics module! You have begun recognizing and practicing skills that will help you to tackle real life ethical problems. (Notice that we are going to work with "problems" not "dilemmas".) We will now turn, in the next module, to look at those who managed to do good in the face of difficulty. Studying moral exemplars will provide the necessary corrective to the "no-win" Mountain Terrorist Exercise.

## 2.3 Professional Ethics in Puerto Rico: Codes, Problem Solving, and Ethical Dissent<sup>5</sup>

### 2.3.1 I. Module Introduction

In this module, you will view the DVD Incident at Morales and carry out a series of activities designed to familiarize you with issues in ethical leadership, social responsibility, and globalization. Links to interviews

<sup>5</sup>This content is available online at <<http://cnx.org/content/m15501/1.8/>>.

with major figures on globalization, to the Connexions module "Socio Technical Systems in Decision Making" and to online material on "Incident at Morales" will help you to gather the information you need to complete this module.

### 2.3.2 Issues in Incident at Morales

The "Incident at Morales" is the dramatization of a series of decisions and actions that culminate in the actual incident. It provides an excellent opportunity to discuss a number of issues in engineering and professional ethics: conflict of interest, confidentiality, the paramountcy of public welfare (including environmental integrity), and the way in which engineering and business constraints interact to create ethical difficulties. A chemical engineer, Fred, is hired by Phaust Chemical to build a plant for manufacturing a paint stripper, one of Phaust's leading products. While Phaust officials deny that they hired Fred because his previous job was with their main competitor, Chemitoil, they nevertheless press Fred for details about the Chemitoil plant Fred just designed. When mergers and acquisitions of Phaust's parent company in France translate into sharp budget cuts on the new plant Fred is designing, he finds himself confronted with a series of ethical problems that become increasingly difficult to resolve.

**Below is a list of ethical issues raised in the video. The quotes below come from the Study Guide to "Incident at Morales"**

- Confidentiality: "Although the lawyers note that Fred has no legal obligations to Chemitoil because he did not sign a non-disclosure agreement, does Fred have a moral obligation to ensure the confidentiality of the information he may have learned at Chemitoil?"
- Wally's "One Rule": What is the impact of Wally's "One Rule" on Fred's ability to do his job? More importantly, does this interfere with Fred's ability to meet his professional ethical obligations in the course of conducting his job?"
- **Lutz and Lutz Controls:** Wally claims that **Lutz and Lutz** controls are the best among the available alternatives. He also claims that the fact that Chuck's brother-in-law works with **Lutz and Lutz** is not a relevant factor. How should Fred choose in this situation regarding controls?
- Couplings: In choosing both the type of couplings and piping as well as to use a local (Mexico) supplier without a plant inspection, what factors should Fred take into account? What should be the margin of error in terms of pressure? How does Fred balance safety and reliability with the need to cut costs due to the parent company's recent acquisitions?
- Environmental Regulations—When in Rome...: Should Fred take advantage of less strict environmental regulations in Mexico to save money for Phaust corporation? What are the responsibilities of multinational corporations that operate in countries like Mexico?

### 2.3.3 What You Need to Know

This section provides general background information useful for this module. It includes information on how to (1) define problems, (2) design and evaluate ethical solutions, and (3) resolve disagreements. These frameworks can be used with the Pre-Test and Gray Matters activities.

**Problem Solving Stages (Based on analogy between the problem solving and design processes)**

1. **Problem Specification or Definition:** This stage consists of defining the problem you face from different standpoints or frames. Carefully defining your problem is an essential step to designing effective and ethical solutions. Defining your problem from multiple frames or vantage points, also helps you to create imaginative and ethical solutions to problems that appear unsolvable under commonplace framings.
2. **Solution Generation:** In this stage, you will try to resolve the problem you defined in the previous stage. In a section below, you will find a list of generic solutions to disagreements between stakeholders.

3. **Solution Testing:** The solutions developed in the second stage must be tested in different ways. The reversibility test encapsulates the ethical theory of deontology; exploring the issue from the standpoint of those on the receiving end of your action outlines the idea of reciprocity which is fundamental to deontology. The harm/benefits test has you weigh benefits against harms and steers you toward that solution that produces the most benefits and the least harms. This provides a reasonable approximation to the theory of Utilitarianism which enjoins us to produce the greatest good for the greatest number. Finally, the publicity test has you attribute the values embedded in the act to the character of the agent. In this way, the publicity test encapsulates virtue ethics.
4. **Solution Implementation:** The chosen solution must be examined in terms of how well it responds to various situational constraints that could impede its implementation. To carry out this stage, imagine a check list of resource, interest, and technical constraints that could give rise to obstacles. Go through the list to see if any of these constraints applies to your solution.

**Problems can be defined in different ways. By looking at a problem through different definitional frames, we are able to uncover non-obvious, creative solutions. Technical problems require that we focus on the hardware and software components of the underlying Socio-Technical System.**

1. **Technical Puzzle:** If the problem is framed as a technical puzzle, then solutions would revolve around developing designs that optimize both ethical and technical specifications, that is, resolve the technical issues and realize ethical value. For example, Phaust chemists could solve the problems of the leaky batches in the new plant by coming up with a new chemical formulation of the paint stripper that doesn't require high temperature and pressure.
2. **Social Problem:** If the problem is framed as a social problem, then solutions would revolve around changing laws or bringing about systemic reform through political action. This would lead one to focus on the people/groups/roles component (working to social practices) or the legal component of a socio-technical system. Fred's dilemma on whether to line the holding ponds at the Morales plant could be resolved if international environmental standards were raised to EPA levels.
3. **Stakeholder Conflict:** If the problem is framed as a conflict between different stakeholder interests, then the solution would concentrate on getting stakeholders (both individuals and groups) to agree on integrative or compromise-building solutions. This requires concentrating on the people/group/role component of the STS. (Note: A stakeholder is any group or individual with a vital interest at play in the situation.) Fred is hard pressed to satisfy Wally's One Rule, the French company's mandated budget cuts, concerns about environmental contamination (expressed by his wife, an EPA litigator), and the Mexican government's concern about worker and plant safety.
4. **Management Problem:** Finally, if the problem is framed as a management problem, then the solution would revolve around changing an organization's procedures. Along these lines, it would address the organization's (1) fundamental goals, (2) decision recognition procedures, (3) organizational roles, and/or (4) decision-making hierarchy. These four components comprise the organization's **CID** (corporate internal decision) structure. Fred would not have to deal with the moral concerns about passing off problems to the operations division of Phaust if there were company regulations against this or if Phaust did not present an organizational system that pits plant designers against operations.

### Ethics Tests

1. **Reversibility:** Would this solution alternative be acceptable to those who stand to be most affected by it? To answer this question, change places with those who are targeted by the action and ask, from this new perspective, whether the action is still acceptable?
2. **Harm/Benefits:** What are the harms your solution is likely to produce? What are its benefits? Does this solution produce the least harms and the most benefits when compared to the available alternatives?
3. **Publicity:** Would you want to be publicly associated or identified with this action? In other words, assume that you will be judged as a person by others in terms of the moral values expressed in the action under consideration. Does this accord with how you would aspire to be judged?



**One of the most difficult stages in problem solving is to jump start the process of brainstorming solutions. If you are stuck then here are some generic options guaranteed to get you "unstuck."**

1. **Gather Information:** Many disagreements can be resolved by gathering more information. Because this is the easiest and least painful way of reaching consensus, it is almost always best to start here. Gathering information may not be possible because of different constraints: there may not be enough time, the facts may be too expensive to gather, or the information required goes beyond scientific or technical knowledge. Sometimes gathering more information does not solve the problem but allows for a new, more fruitful formulation of the problem. Harris, Pritchard, and Rabins in *Engineering Ethics: Concepts and Cases* show how solving a factual disagreement allows a more profound conceptual disagreement to emerge.
2. **Nolo Contendere.** Nolo Contendere is latin for not opposing or contending. Your interests may conflict with your supervisor but he or she may be too powerful to reason with or oppose. So your only choice here is to give in to his or her interests. The problem with nolo contendere is that non-opposition is often taken as agreement. You may need to document (e.g., through memos) that your choosing not to oppose does not indicate agreement.
3. **Negotiate.** Good communication and diplomatic skills may make it possible to negotiate a solution that respects the different interests. Value integrative solutions are designed to integrate conflicting values. Compromises allow for partial realization of the conflicting interests. (See the module, *The Ethics of Team Work*, for compromise strategies such as logrolling or bridging.) Sometimes it may be necessary to set aside one's interests for the present with the understanding that these will be taken care of at a later time. This requires trust.
4. **Oppose.** If nolo contendere and negotiation are not possible, then opposition may be necessary. Opposition requires marshalling evidence to document one's position persuasively and impartially. It makes use of strategies such as leading an "organizational charge" or "blowing the whistle." For more on whistle-blowing consult the discussion of whistle blowing in the Hughes case that can be found at computing cases.
5. **Exit.** Opposition may not be possible if one lacks organizational power or documented evidence. Nolo contendere will not suffice if non-opposition implicates one in wrongdoing. Negotiation will not succeed without a necessary basis of trust or a serious value integrative solution. As a last resort, one may have to exit from the situation by asking for reassignment or resigning.

Prepare a socio-technical analysis of Morales, Mexico. Your analysis will examine the insertion of the Phaust chemical plant into the Morales context. Can you identify any potential value conflicts in the Incident at Morales STS? Look at values like safety, equity/justice, intellectual property, confidentiality, responsibility, reasonableness. Compare moral values, moral and nonmoral values, and even nonmoral with nonmoral values to spot potential conflicts.

### **General Information on Socio-Technical Systems**

1. Socio-Technical Systems are systems, that is, complex structures in which simpler components are related and interact. Common STS components are hardware, software, physical surroundings, stakeholders (people, groups, roles), procedures, laws, and information systems.
2. STSs embody values. These values, often moral, can come into conflict with one another. This is an important source of ethical and social problems.
3. STSs change; the path of this change is their trajectory. Value mismatches between the values embedded in the STS provide internal sources of change. Broader external forces such as political and economic power structures can produce change in STSs from without. What is important in professional ethics is learning how to direct this change toward ethical ends.

### **Preparing a STS Table**

- Study the two templates in the module, "Socio Technical Systems in Professional Decision Making." See which one applies best to the Incident at Morales case.

- Redo the headings of the table substituting relevant items for those in the templates that are not relevant. For example, in preparing a STS table for a computer system, you may wish to change rate and rate structures into something like data and data structures.
- Fill in the relevant columns in your newly revised table. For example, in the Incident at Morales, the description of the physical surroundings would be based on the brief video segment where Fred is consulting with Wally and Manuel. What is the geographical area like? (It looks like a dry climate given the DVD.) What is the plant like? (It is, at the very least, small.) Attention to detail—even trivial detail—is important for these columns of the STS.
- For the second table, take the short value list and (1) look for new value mismatches, (2) identify existing value conflicts, and (3) describe any harmful long term consequences. In Incident at Morales, you may want to concentrate on justice (equity), responsibility for safety, respect, property, and free speech.
- Keep your tables simple and direct. Remember, this is a device to help you visualize value conflicts hidden in technologies and socio technical systems.

**Socio-Technical System**

Hardware	Software	Physical Surroundings	People, Groups, Roles	Procedures	Laws, Statutes, Regulations	Data and Data Structures

**Table 2.3****STS and Values**

	Hardware/Software	Physical Surroundings	People, Groups, Roles	Procedures	Laws, Statutes, Regulations	Data and Data Structures
Justice (Equity and Access)	Responsibility					
Responsibility						
Respect (Privacy and Due Process)						
<i>continued on next page</i>						

Property						
Free Speech						

Table 2.4

### 2.3.4 III. What you are going to do

You will be assigned one of the topics described above. Discuss this topic with your group. Answer the questions. The prepare a brief summary of your answers to share with the rest of the class. The topics, again, are confidentiality, Wally's "One Rule", Lutz and Lutz Controls, the quality and integrity of the couplings, and the difference in environmental regulations. Throughout your reflections look for opportunities open to Fred to demonstrate ethical leadership. What obstacles stand in his way? What can he do to overcome them?

#### Scenario 1: "Tell me this is like what you built!"

- **WALLY:** Chuck is going to have a project kick-off meeting this afternoon. Your plant design will be on the agenda. It'll be at three. We don't waste time around here. We're fast at Phaust. corporate tag line.
- (Walley hands the preliminary plant plans to Fred.)
- **WALLEY:** You might want to look at this. (Hopeful) Tell me if this is like what you were building at your last job.
- **You are Fred. Respond to Wally's question. Try to balance respect to your former employer, Chemitoil, with your current employer, Phaust. Use the ethics tests and the feasibility test to evaluate and justify your solution.**

#### Scenario 2: Lutz and Lutz Controls?

- You are Fred. After you point out to Wally that Lutz and Lutz controls are expensive, he advises you to "pick your fights when you can win them." (Chuck's brother-in-law is the customer representative for Lutz and Lutz.)
- You think about taking Wally's advice. The cheaper controls should work well except for situations of high temperature and pressure. This is not a problem with the formulation first put forth by Phaust chemists.
- **Evaluate the following option using the ethics and feasibility tests. Can you think of a better option? Use the ethics and feasibility tests to show that your solution is better.**
- **Take Wally's advice and recommend purchasing the more expensive Lutz and Lutz controls. Find some other budget item for cutting expenses.**

#### Scenario 3: Why do you think we are building it in Mexico?

Fred tells Chuck about his environmental concerns. He feels that toxic wastes will leach into the groundwater unless the holding ponds in Morales are lined.

Evaluate the following options using the ethics and feasibility tests:

1. Let Chuck go ahead and call a meeting and bring in the environmental expert.
2. Consult Wally first before allowing Chuck to call the meeting.
3. Keep your environmental concerns to yourself and discuss them later with Wally

#### Scenario 4: Responding to the Chemical Reformulation

- After viewing the new paint stripper from chemitool, Phaust decides to redo their own formula. they will use a higher temperature/pressure process. This cuts deeply into the margin of safety on the couplings, flanges, and cheaper controls.
- **You are Fred. What should you recommend? Evaluate the following using the ethics and feasibility tests:**
- 1. Go along with the new chemical formulation. The safety margins are close but still adequate. You can also pass off problems and costs to operations.
- 2. Argue that using the new formulation requires retrofitting the couplings, flanges, and controls. It is expensive in the short run but cheaper in the long run.

### Scenario 5: Leaks After Thirty Batches

You notice that significant leaks are occurring during the plant's testing and start-up phases. These leaks are probably caused by the cheaper controls, inferior couplings, and the inexperience of the plant operating team including Manuel. What should you do?

1. Have Manuel baby sit the batches timing them and constantly checking their temperature.
2. Argue that it is necessary to immediately retrofit the plant with Lutz and Lutz controls.
3. Argue that it is necessary to retrofit the plant with Lutz and Lutz controls but this should be done after the plant has been turned over to operations. Let them pay for it.

Compare and rank these solution alternatives using the ethics and feasibility tests.

### Scenario 6: Should you let those plant jockeys make New Stripper?

Wally: Well, this is what we're going to give to operations when we hand over the plant. Is everybody

CHUCK: Fred's the guy who's got to put his name on it, Fred's got to be alright with it...

Fred: Well, the couplings still leak when the pressure is up.

Wally: And we've alerted operations and given them specific instructions on how to maintain the connect

CHUCK: We've got Jen working on a lower temperature formula. That may make all of this moot.

Fred: We haven't worked out the bugs on the last step of the automation...

WALLY: And next year, we'll retrofit the entire plant with L and L controls.

CHUCK: This is how it works. We design it. We build it, we hand it over. They run it.

We've done the best we can. No plant, no process, no system is ever completely perfect.

WALLY: You built a plant that's efficient. You've got your upgrades to the wastewater treatment.

Fred: Yeah, you're right. Um, for now Manuel or one of his guys can use the manual release valve.

CHUCK: Okay. Time to let those plant jockeys make New Stripper.

You are Fred. Should you sign off on the documents?

Use the ethics and feasibility tests to test this solution

The following table is designed to help you brainstorm and refine solutions to the problem(s) raised by your scenario.

**Refined Solution Table**

Decision Alternative	Description	Justification: problem fit, ethics, feasibility
Solution 1		
Solution 2		

**Table 2.5**

The following table, a **Solution Evaluation Matrix**, will help you to evaluate and rank solutions in terms of their ethics and feasibility.

**Solution Evaluation Matrix**

Solution / Test	Reversibility	Harm / Benefits	Publicity	Feasibility (Global)
Solution 1				
Solution 2				

**Table 2.6**

For Feasibility Table, see m14789.

### 2.3.5 Conclusion: What did you learn?

#### Some Closing Exercises

1. How does the STS in Morales, Mexico differ from that of Puerto Rico. (A suggested PR STS can be found on the last slide of the presentation appended just below.
2. In what ways (if any) should the CIAPR code of ethics be changed to respond to the problems that arise in "Incident at Morales"? Is it necessary to add more specific principles of professional conduct? Should more aspirational, value-based provisions be added.
3. Obviously, it is best to direct changes in our STSs to avoid problems like those arising in "Incident at Morales." What kind of changes should we make in the stakeholder columns? Can professional societies like the CIAPR play a role in preventing these problems? Is this primarily a compliance role or can other roles be identified?

### 2.3.6 CIAPR/OEG/CEP Presentation in Professional Ethics

The following resources were invaluable in preparing this module

1. Elena Lugo, **Etica Profesional Para La Ingeniera**, , Mayaguez, PR: Liberia Universal, Inc., 1985. The first book on engineering ethics written in Spanish, it deserves the excellent review it received in Business and Professional Ethics in 1995.
2. Wilfredo Munoz-Roman, **Etica en la Practica Profesional de la Ingenieria: Aspectos Filosoficos, Historicos y Procesales**, San Juan, PR: Universidad Politecnica de Puerto Rico, 1998. This book sponsored by the CIAPR forms the basis of the slides outlining the institutionalization of engineering in Puerto Rico by the Colegio de Intenieros de Puerto Rico.
3. Carl Mitcham and Marcos Garcia de la Huerta, **La Etica En La Profesion De Ingeniero**, Universidad de Chile: Departamento de Estudios Humanisticos, Facultad de Ciencias Fisicas y Matematicas, 2001.

4. Stephen H. Unger, **Controlling Technology: Ethics and the Responsible Engineer, 2nd Edition**, New York: John Wiley and Sons, INC., 1994, 220-239. Unger discusses the positive role professional societies can play in supporting ethical engineers. Chapter 7 (220-239) provides helpful hints to those who would ethically dissent. This advice can also be found at [onlineethics.org](http://onlineethics.org).
5. Charles Harris, Michael Pritchard, and Michael Rabins, **Engineering Ethics: Concepts and Cases, 3rd Edition**, US: Thompson, 2005. An excellent and widely used textbook in engineering. It's cases have been developed and refined through several NSF-funded case developing initiatives.
6. Michael Davis, **Thinking Like an Engineer: Studies in the Ethics of a Profession**, UK: Oxford University Press, 1998. In addition to providing an excellent historical background to engineering ethics, this book contains invaluable discussions of codes of ethics, wrongdoing in engineering, and a summary of a study looking at the organizational contexts in which engineers practice.
7. Jimmy Smith and Patricia Harper, editors, **Engineering Ethics: Concepts, Viewpoints, Cases and Codes**, Texas Tech University and Murdough Center for engineering Professionalism: National Institute for Engineering Ethics, 2004. This excellent resource, written by and for engineers, contains the NSPE BER decisions on key cases.
8. Samuel C. Florman, **The Existential Pleasures of Engineering**, New York: St Martin's Press, 1976. Florman defends engineering against the "antitechnologists." But he also writes from the experience of a practicing engineer on joys brought about by the the pursuit of excellence in engineering. Florman is engineering's most eloquent spokesperson.

**For invaluable information on codes of ethics, their functions, and the results they bring about, consult the following:**

1. Kenneth Kipnis, "Engineers Who Kill: Professional Ethics and the Paramountcy of Public Safety," in **Business and Professional Ethics**, 1(1), Fall 1981: 77-91.
  2. John Kultgen, "The Ideological Use of Professional Codes," in **Business and Professional Ethics**, 1(3): 53-69. Kultgen reveals a disparity between the meanings professional codes convey to membership versus those conveyed to outsiders. He identifies four myths that codes can fall into: independence, altruism, peer review, and wisdom. Must reading for those who would identify pitfalls of professionalism and professional codes.
  3. Lynn Sharp Paine, "Managing for Organizational Integrity" in **Harvard Business Review**, March-April 1994: 106-117. This seminal article contrasts integrity-based and compliance strategies for implementing ethical management. The focus is business ethics but her argument is highly relevant for engineers and surveyors working in organizational contexts.
  4. Gary Weaver and Linda Klebe Trevino, "Compliance and Values Oriented Ethics Programs: Influences on Employees' Attitudes and Behavior," in **Business Ethics Quarterly**, 9(2): 315-335.
  5. John Ladd, "The Quest for a Code of Professional Ethics: An Intellectual and Moral Confusion," in **Ethical Issues in Engineering**, edited by Deborah G. Johnson, Englewood Cliffs, NJ: Prentice Hall, 1991: 130-136.
- This presentation was given before the CIAPR, OEG, and the UPRM CEP organizations on November 15, 2007.

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### CIAPR Presentation on Professional Ethics

This media object is a downloadable file. Please view or download it at  
<EEPR\_Nov\_07\_V2.ppt>

**Figure 2.1:** This presentation on Professional Ethics has been developed for the Puerto State Society of Professional Engineers and Surveyors. The PR Office of Governmental Ethics and the University of Puerto Rico, Mayaguez Campus Center for Professional Enhancement allowed participants credit for the November 15, 2007 activity.

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### Evaluations for Mayaguez Workshop

This media object is a downloadable file. Please view or download it at  
<OEG\_CIAPR\_Evals.pdf>

**Figure 2.2:** This media file has been added for those referred here by the Frontiers in Education Work in Progress that details this activity. Clicking on the link provided will open workshop assessment results generated November 15, 2007 by the Puerto Rican Office of Government Ethics. Although these results are in Spanish, they can give English readers a rough idea of how participants viewed the content, pedagogical style, and presenters. More complete assessment will follow upon future instantiations of this workshop.

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## Frontiers in Education Presentation 2008

### Teaching Engineering Ethics in Puerto Rico

This media object is a downloadable file. Please view or download it at  
<TeachEE\_V1.pptx>

**Figure 2.3:** Clicking on this media file will open the presentation delivered by William Frey and Efrain O'Neill at Frontiers in Education, October 24, 2008. This presentation summarizes a workshop developed for engineering practitioners in Puerto Rico in engineering ethics.

### Intermediate Moral Concepts

This media object is a downloadable file. Please view or download it at  
<IMC\_V2\_97-2.doc>

**Figure 2.4:** This figure provides a table summary of intermediate moral concepts used in decision making in the business and professional areas.

### Basic Moral Concepts

This media object is a downloadable file. Please view or download it at  
<BME\_V2\_97-1.doc>

**Figure 2.5:** This figure offers a table summary of basic moral concepts used in decision making in the business and professional areas.

### Partial Exam Rubric

[MEDIA OBJECT]<sup>6</sup>

### Jeopardy on Incident at Morales

[MEDIA OBJECT]<sup>7</sup>

This module is a WORK-IN-PROGRESS; the author(s) may update the content as needed. Others are welcome to use this module or create a new derived module. You can COLLABORATE to improve this module by providing suggestions and/or feedback on your experiences with this module. This module links to an assessment module that contains exercises useful for its improvement. The authors ask those who use it to carry out assessment activities and communicate the results to them in order to help in this modules continual improvement.

Funded by the National Science Foundation: "Collaborative Development of Ethics Across the Curriculum Resources and Sharing of Best Practices," NSF-SES-0551779

## 2.4 Values-Based Decision-Making in Gilbane Gold<sup>8</sup>

### 2.4.1 I. Module Introduction

The Federal Sentencing Guidelines introduced in the early 1990's have transformed the way businesses respond to ethics. Formerly, corporations relied on compliance measures which became activated only after wrongdoing occurred. Violations occurred and compliance responses consisted of identifying and punishing those responsible. But the Federal Sentencing Guidelines push corporations toward a much more proactive stance; if a corporation is found guilty of law violation, its punishment is determined by the measures the corporation has already implemented to prevent the crime as well as the measures the corporation develops in response to the crime to mitigate it and prevent future reoccurrences. Working to prevent crime, accepting responsibility for crimes that could not be prevented, and learning from past mistakes all serve to "flag" corporate intention. In other words, corporations can demonstrate good intentions by documenting

<sup>6</sup>This media object is a downloadable file. Please view or download it at  
<PE\_Rubric\_EO\_S09-1.doc>

<sup>7</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy\_IM.pptx>

<sup>8</sup>This content is available online at <<http://cnx.org/content/m15783/1.8/>>.



measures implemented to prevent crime and by showing a “responsive adjustment” to crimes they could not prevent.

It is in this new corporate context that corporations have begun to adopt values-based decision making. Instead of setting forth rules that outline minimum levels of forced compliance, they now ask employees to work beyond the moral minimum and seek occasions to actually realize or enhance moral value. In the decision making context, employees ask: (1) What can I do to make this a more just environment? (2) How do I go about respecting my co-workers? and (3) How do I identify and carry out my responsibilities, including social responsibilities, in my daily work?” These questions, representing instances of values-based decision-making, serve to change your focus from getting by with the moral minimum to realigning your moral and workplace efforts toward moral excellence.

In this module you will learn about ethical leadership, ethical decision-making, corporate social responsibility, and corporate governance. The occasion for this learning is the classical ethics video, “Gilbane Gold.” You will view the video and practice values-based decision-making from within the role of David Jackson, the young engineer around whom the narrative of this video is built. To get you started, you will use the values portrayed in the University of Puerto Rico’s College of Business Administration Statement of Values. Module sections will outline what you will be doing and what you need to know as well as provide opportunities for you to reflect on what you have learned upon completion of this module.

## 2.4.2 II. What you need to know...

### Value-Based Decision Making

In value-based decision-making, you use moral values to pose problems and solutions. For example, problems can be posed as conflicts between values (moral vs. non-moral or moral vs. moral), lack of information about how to realize or maintain values, and situations where key values need to be defended. The point in value-based decision making is to design solutions that realize the maximum number of values possible by integrating them, drawing successful compromises between them, or choosing to act upon the most important value given the situation. In this module, you will be working from within David Jackson’s position to design a solution to his problem that best responds to the value needs in his situation.

### Gilbane Gold

- You are David Jackson a young engineer working for the computer manufacturer, Z-Corp. Your studies into the waste emissions of Z-Corp indicate that they are a little bit over the borderline of what is legally acceptable in the Gilbane metropolitan area. Two further issues complicate your findings. (1) Gilbane draws sludge from the river and sells it to farmers to cover their fields; if heavy metals are present in this sludge, they will be passed on to consumers who eat the vegetables grown in fields covered with this "Gilbane Gold." This could produce long and short term health problems for the Gilbane community. (2) Z-Corp has just entered into a new agreement with a Japanese company that will produce a five-fold increase in demand for their product. While this will also increase their emissions of heavy metals into the water supply by the same amount, it will not violate city regulations because these regulations only take into account the concentration of heavy metals in each discharge. Z-Corp merely dilutes the heavy metals dumped into Gilbane’s water supply to reflect acceptable concentration levels. David Jackson holds that this loophole in environmental regulations could endanger the health and safety of the citizens in the Gilbane. But he has trouble sharing these concerns with his supervisors, Diane Collins, Phil Port, and Frank Seeders.
- David (you) has made several efforts to make his concerns known to Z-Corp officials, including Phil Port, Frank Seeders, and Diane Collins. Their response is that spending money on increased pollution control measures will threaten Z-Corp’s thin profit margin. Diane puts the issue even more strongly when she says that Z-Corp’s social responsibility is to provide the Gilbane community with good jobs and to obey local environmental regulations. If the city wants stricter regulations, then **they** need to pass them through the legislative process. But taking proactive measures on this count goes far beyond Z-Corp’s ethical and social responsibilities to the Gilbane community.

- You are David. What values do you see involved in this situation? Design a solution that best preserves and integrates them.

### Partial List of Characters

1. **David Jackson:** Young engineer whose measurements show that Z-Corp's emissions into the Gilbane water supply barely exceed local standards. He expresses concern to his supervisors on the impact on the safety and health of the local community.
2. **Diane Collins:** David's supervisor who is under strong pressure to maintain the Z-Corp Gilbane plant's thin profit levels. She is concerned about environment responsibility but defines it as staying within the limits of the law as put forth by the Gilbane community. Gilbane sets for the law and Z-Corp is responsible for staying within its limits. If the law is inadequate, then Gilbane is responsible for changing it.
3. **Tom Richards:** Environmental engineer hired to measure Z-Corp's heavy metal emissions into the Gilbane water supply. Richards warns David that he bears ultimate responsibility for Z-Corp's emissions into the Gilbane water supply.
4. **Phil Port:** Z-Corp's official in charge of the company's compliance with environmental regulations. He calls David during the TV documentary to claim that it portrays him as an "environmental rapist."
5. **Frank Seeders:** Frank is the point man on helping to gear up Z-Corp's operations to meet the new demand created by their recent venture with a Japanese company. He asks David to help him streamline Z-Corp's manufacturing process.
6. **Maria Renato:** Local reporter who produces documentary exposing Z-Corp's potentially dangerous emissions. She has prepared her report based on documentation provided by David Jackson.

### Statement of Values List

1. **Justice / Fairness:** Be impartial, objective and refrain from discrimination or preferential treatment in the administration of rules and policies and in its dealings with students, faculty, staff, administration, and other stakeholders.
2. **Responsibility:** Recognize and fulfill its obligations to its constituents by caring for their essential interests, by honoring its commitments, and by balancing and integrating conflicting interests. As responsible agents, the faculty, employees, and students of the college of business Administration are committed to the pursuit of excellence, devotion to the community's welfare, and professionalism.
3. **Respect:** Acknowledge the inherent dignity present in its diverse constituents by recognizing and respecting their fundamental rights. these include rights to property, privacy, free exchange of ideas, academic freedom, due process, and meaningful participation in decision making and policy formation.
4. **Trust:** Recognize that trust solidifies communities by creating an environment where each can expect ethically justifiable behavior from all others. While trust is tolerant of and even thrives in an environment of diversity, it also must operate within the parameters set by established personal and community standards.
5. **Integrity:** Promote integrity as characterized by sincerity, honesty, authenticity, and the pursuit of excellence. Integrity shall permeate and color all its decisions, actions and expressions. It is most clearly exhibited in intellectual and personal honesty in learning, teaching, mentoring and research.

### 2.4.3 III. What you are going to do...

1. Watch the video and make sure you understand the situation from David's point of view. At the end David makes his decision. You should be open to the possibility that there may be other decisions that can be taken in this situation that may be better from a moral point of view.
2. What is David's problem? Try formulating it in terms of values that are under threat and conflicts between values. You may even want to identify information needs relevant to solving this problem?

3. What solutions do different individuals in the video recommend to David? How good are they in terms of realizing or protecting key moral values? Does David (and the video) pay sufficient attention to these different recommendations? Does he miss better value-integrative solutions?
4. Make your decision. Defend it in terms of key moral values. Use the values provided above in the UPRM College of Business Administration's Statement of Values.
5. Give special attention to the links provided in this module. Are there solutions to David's problem not mentioned in the video?

#### 2.4.4 IV. Exercise: Problem Solving With Gilbane Gold

##### Directions

Copy-past this exercise and complete in your groups. If you have any questions on the stages of problem solving, consult the module "Three Frameworks for Ethical Decision Making and Good Computing Reports," module m13757.

##### Problem Specification

- Classify your problem. Is it a conflict between values, a conceptual disagreement, a factual disagreement, or an impending harm. Provide a one or two sentence justification for your problem classification
- Frame your problem in three different ways. How does Gilbane Gold appear from the frame of an environmental engineer? From the standpoint of a local farmer concerned about soil contamination? From the standpoint of a manager who is under pressure to maintain razor-thin profit margins as well as authority over those under her supervision?

##### Solution Generation

- Set 10 solutions as a quota. Then individually brainstorm as quickly as possible 10 solutions.
- Share your solutions with your group members. Make a special effort to suspend all criticism until all the solutions of all the group members have been listed.
- Refine your solution list into three solutions, two good ones and one bad one. Refine by developing a Plan A, Plan B, and Plan C sequence. Integrate similar solutions. Condense your bad solutions into one bad solution that will serve as a useful basis of comparison.
- Work first toward a value integrative solution. If this is not possible, seek a value compromise. As a last resort prioritize your values and trade off the less for the more important relative to the situation at hand.

##### Solution Testing

- Test ethically three solutions, your two best solutions and a bad one to serve as a basis of comparison.
- Use the three ethics tests: reversibility, harm, and publicity. You can substitute a rights test for reversibility and a values or virtues test for publicity.
- Tie breakers: meta tests. If tests converge on a solution, this is an independent signal of solution strength. If the tests diverge on a particular solution alternative, this is an independent sign of the solution's weakness.
- Is your best solution feasible? Ask this question globally.

##### Solution Implementation

- In this stage, you want to look carefully at the situation in which you are going to realize your solution. Are there factors in this situation that will constrain or limit implementation? What are they, and how will they do this?
- Are there factors present in the situation that will aid the implementation of one or the other of your good solutions? What are they?

- What are your resource constraints? Do you have enough time, money, or materials to realize your ethical solution? If not, are the constraints negotiable?
- What are your interest or social constraints? Are there individuals or groups who have agendas affected by your solution? Given these agendas will they be allies or opponents? How can you win opponents over your side? Think here about government regulations, supervisor interests, corporate or business procedures, community traditions, etc.
- Important in Gilbane Gold is whether your solution is technical feasible and how your solution will affect the chip-manufacturing process. Is your solution technically feasible? Does it require developing new technology or acquiring expensive technology? Are these technical or manufacturing constraints negotiable, that is, flexible or rigid?

### 2.4.5 V. Conclusion

More and more, business ethics is concentrating on four general themes or issues. In this section, you will use the video, “Gilbane Gold,” to reflect on these different themes. Consider this your first incursion into business ethics. Most important, remember that ethics forms a central part of everyday business practice and is essential to good business.

**Ethical Leadership:** In terms of the values mentioned in the SOV, discuss and rate the following characters in terms of the leadership skills and qualities they exhibit:

- Diane Collins
- David Jackson
- Phil Port
- Tom Richards
- Frank Seeders

#### **Social Responsibility:**

David reminds Diane that corporations like Z-Corp are responsible for the health and safety impacts of their operations. Diane disagrees placing more emphasis on following the law and serving the community by creating economic opportunity and jobs. Who sets for the better argument? Using these positions as a springboard, set forth your own conception of corporate social responsibility.

#### **Corporate Governance:**

Toward the end of the video, David goes to local reporter, Maria Renato, and provides her with inside information on his and Tom Richards’s environmental and safety concerns. Was this a necessary action? Did David have other options which would have allowed him to work within Z-Corp for an effective response to his concerns? How do engineers advocate within for-profit corporations for including ethical values into corporate decisions? What do real world corporations do to recognize and respond to dissenting professional opinions held by their employees?

#### **Notes on Gilbane Gold for Fall 2013**

[MEDIA OBJECT]<sup>9</sup>

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<sup>9</sup>This media object is a downloadable file. Please view or download it at  
<Notes on Gilbane Gold.pptx>

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### Values in Gilbane Gold Handout

This media object is a downloadable file. Please view or download it at  
<Values in Gilbane Gold Handout.doc>

**Figure 2.6:** This handout for students provides exercises based on Gilbane Gold that introduces the three AACSB business ethics themes: ethical leadership, ethical decision-making, and social responsibility.

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### Virtues for ADMI 3405

This media object is a downloadable file. Please view or download it at  
<Virtues for ADMI 3405.pptx>

**Figure 2.7:** Clicking on this file are the virtues worked out in the previous module. Use these to carry out the values-based decision making exercise in Gilbane Gold.

## Presentation on Values Based Decision Making

[MEDIA OBJECT]<sup>10</sup> Working from an analogy between design and ethics problem-solving, this presentation

### Ethics Assessment Activity: Pre and Post Test

[MEDIA OBJECT]<sup>11</sup> This is a short pre and post test to examine short term impact of the module.

### Solution Brainstorm for Gilbane Gold

[MEDIA OBJECT]<sup>12</sup>

## 2.5 Three Frameworks for Ethical Problem-Solving in Business and the Professions<sup>13</sup>

### 2.5.1 Module Introduction

In this module you will learn and practice three frameworks designed to integrate ethics into decision making in the areas of practical and occupational ethics. The first framework divides the decision making process into four stages: **problem specification, solution generation, solution testing, and solution implementation**. It is based on an **analogy between ethics and design problems** that is detailed in a table

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<sup>10</sup>This media object is a downloadable file. Please view or download it at

<Values Based Decision Making.pptx>

<sup>11</sup>This media object is a downloadable file. Please view or download it at

<Ethics Assessment.docx>

<sup>12</sup>This media object is a downloadable file. Please view or download it at  
<Solutions to Gilbane Gold.docx>

<sup>13</sup>This content is available online at <<http://cnx.org/content/m13757/1.24/>>.

presented below. The second framework focuses on the process of **testing solution alternatives for their ethics** by deploying three ethics tests that will help you to evaluate and rank alternative courses of action. The reversibility, harm, and publicity tests each "encapsulate" or summarize an important ethical theory. Finally, a **feasibility test** will help you to uncover interest, resource, and technical constraints that will affect and possibly impede the realization of your solution or decision. Taken together, these three frameworks will help steer you toward designing and implementing ethical solutions to problems in the professional and occupational areas.

Two online resources provide more extensive background information. The first, [www.computingcases.org](http://www.computingcases.org), provides background information on the ethics tests, socio-technical analysis, and intermediate moral concepts. The second, <http://onlineethics.org/essays/education/teaching.html>, explores in more detail the analogy between ethics and design problems. Much of this information will be published in *Good Computing: A Virtue Approach to Computer Ethics*, a textbook of cases and decision making techniques in computer ethics that is being authored by Chuck Huff, William Frey, and Jose A. Cruz-Cruz.

### 2.5.2 Problem-Solving or Decision-Making Framework: Analogy between ethics and design

Traditionally, problem-solving frameworks in professional and occupational ethics have been taken from rational decision procedures used in economics. While these are useful, they lead one to think that ethical decisions are already "out there" waiting to be discovered. In contrast, taking a design approach to ethical decision making emphasizes that ethical decisions must be created, not discovered. This, in turn, emphasizes the importance of moral imagination and moral creativity. Carolyn Whitbeck in *Ethics in Engineering Practice and Research* describes this aspect of ethical decision making through the analogy she draws between ethics and design problems in chapter one. Here she rejects the idea that ethical problems are **multiple choice problems**. We solve ethical problems not by choosing between ready made solutions given with the situation; rather we use our moral creativity and moral imagination to design these solutions. Chuck Huff builds on this by modifying the design method used in software engineering so that it can help structure the process of framing ethical situations and creating actions to bring these situations to a successful and ethical conclusion. The key points in the analogy between ethical and design problems are summarized in the table presented just below.

Analogy between design and ethics problem-solving	
Design Problem	Ethical Problem
Construct a prototype that optimizes (or satisfices) designated specifications	Construct a solution that integrates and realizes ethical values (justice, responsibility, reasonableness, respect, and safety)
Resolve conflicts between different specifications by means of integration	Resolve conflicts between values (moral vs. moral or moral vs. non-moral) by integration
Test prototype over the different specifications	Test solution over different ethical considerations encapsulated in ethics tests
<i>continued on next page</i>	

Implement tested design over background constraints	Implement ethically tested solution over resource, interest, and technical constraints
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Table 2.7

### 2.5.3 Software Development Cycle: Four Stages

(1) problem specification, (2) solution generation, (3) solution testing, and (4) solution implementation.

### 2.5.4 Problem specification

Problem specification involves exercising moral imagination to specify the socio-technical system (including the stakeholders) that will influence and will be influenced by the decision we are about to make. Stating the problem clearly and concisely is essential to design problems; getting the problem right helps structure and channel the process of designing and implementing the solution. There is no algorithm available to crank out effective problem specification. Instead, we offer a series of guidelines or rules of thumb to get you started in a process that is accomplished by the skillful exercise of moral imagination.

For a broader problem framing model see Harris, Pritchard, and Rabins, **Engineering Ethics: Concepts and Cases**, 2nd Edition, Belmont, CA: Wadsworth, 2000, pp. 30-56. See also Cynthia Brincat and Victoria Wike, **Morality and Professional Life: Values at Work**, New Jersey: Prentice Hall, 1999.

#### Different Ways of Specifying the Problem

- Many problems can be specified as disagreements. For example, you disagree with your supervisor over the safety of the manufacturing environment. Disagreements over facts can be resolved by gathering more information. Disagreements over concepts (you and your supervisor have different ideas of what safety means) require working toward a common definition.
- Other problems involve conflicting values. You advocate installing pollution control technology because you value environmental quality and safety. Your supervisor resists this course of action because she values maintaining a solid profit margin. This is a conflict between a moral value (safety and environmental quality) and a nonmoral value (solid profits). Moral values can also conflict with one another in a given situation. Using John Doe lawsuits to force Internet Service Providers to reveal the real identities of defamers certainly protects the privacy and reputations of potential targets of defamation. But it also places restrictions on legitimate free speech by making it possible for powerful wrongdoers to intimidate those who would publicize their wrongdoing. Here the moral values of privacy and free speech are in conflict. Value conflicts can be addressed by harmonizing the conflicting values, compromising on conflicting values by partially realizing them, or setting one value aside while realizing the other (=value trade offs).
- If you specify your problem as a disagreement, you need to describe the facts or concepts about which there is disagreement.
- If you specify your problem as a conflict, you need to describe the values that conflict in the situation.
- One useful way of specifying a problem is to carry out a stakeholder analysis. A stakeholder is any group or individual that has a vital interest at risk in the situation. Stakeholder interests frequently come into conflict and solving these conflicts requires developing strategies to reconcile and realize the conflicting stakes.
- Another way of identifying and specifying problems is to carry out a socio-technical analysis. Socio-technical systems (STS) embody values. Problems can be anticipated and prevented by specifying possible value conflicts. Integrating a new technology, procedure, or policy into a socio-technical system can create three kinds of problem. (1) Conflict between values in the technology and those in the STS. For example, when an attempt is made to integrate an information system into the STS of a small business, the values present in an information system can conflict with those in the socio-technical system. (Workers may feel that the new information system invades their privacy.) (2) Amplification

of existing value conflicts in the STS. The introduction of a new technology may magnify an existing value conflict. Digitalizing textbooks may undermine copyrights because digital media is easy to copy and disseminate on the Internet. (3) Harmful consequences. Introducing something new into a socio-technical system may set in motion a chain of events that will eventually harm stakeholders in the socio-technical system. For example, giving laptop computers to public school students may produce long term environmental harm when careless disposal of spent laptops releases toxic materials into the environment.

- The following table helps summarize some of these problem categories and then outlines generic solutions.

Problem Type	Sub-Type	Solution Outline		
Disagreement	Factual	Type and mode of gathering information		
	Conceptual	Concept in dispute and method for agreeing on its definition		
Conflict	Moral vs. Moral	Value Integrative	Partially Value Integrative	Trade Off
	Non-moral vs. moral			
	Non-moral vs. non-moral			
Moral Ecologies	Finance-Driven Ecologies	Strategy for dissenting from a staff position where one is outside decision-making	Practicing ethical advocacy when "going to the mat" on ethical perspectives in group decision-making	Ability to draw attention to ethical values that form center of organization identity
	Customer-Driven Ecologies			
	Quality-Driven Ecologies			
Likely Concepts in Conceptual Disagreement	Public Intellectual Property, Faithful Agency, Professional Integrity, Loyalty, Public Safety and Health, Due Process, Responsible Dissent	Working from Legal Definitions	Bridging: moving from cases to concepts	Discussion: Playing on shared values and trust to reach consensus through dialogue

Table 2.8

The materials on moral ecologies come from Huff, C., Barnard, L., and Frey, W. (2008). "Good computing: a pedagogically focused model of virtue in the practice of computing (parts 1 and 2)", *Journal of Information, Communication and Ethics in Society*, Volume 6, Issues 3 and 4: 246-316. See also, Michael Davis, *Thinking Like An Engineer*, Oxford, 1998, 119-156.

### Instructions for Using Problem Classification Table

1. Is your problem a conflict? Moral versus moral value? Moral versus non-moral values? Non-moral versus non-moral values? Identify the conflicting values as concisely as possible. Example: In Toysmart, the financial values of creditors come into conflict with the privacy of individuals in the data base: financial versus privacy values.



2. Is your problem a disagreement? Is the disagreement over basic facts? Are these facts observable? Is it a disagreement over a basic concept? What is the concept? Is it a factual disagreement that, upon further reflection, changes into a conceptual disagreement?
3. Does your problem arise from an impending harm? What is the harm? What is its magnitude? What is the probability that it will occur?
4. If your problem is a value conflict then can these values be fully integrated in a value integrating solution? Or must they be partially realized in a compromise or traded off against one another?
5. If your problem is a factual disagreement, what is the procedure for gathering the required information, if this is feasible?
6. If your problem is a conceptual disagreement, how can this be overcome? By consulting a government policy or regulation? (OSHA on safety for example.) By consulting a theoretical account of the value in question? (Reading a philosophical analysis of privacy.) By collecting past cases that involve the same concept and drawing analogies and comparisons to the present case?

### **Moral Ecologies**

- "Moral Ecology" refers to the organization in which one works. Calling this organization an "ecology" conveys the idea that it is a system of interrelated parts. These "ecologies" differ depending on the content of the organization's central, identity-conferring values.
- In finance-driven companies, financial values form the core of the organization's identity. Ethical advocacy requires skills in bringing ethical issues to the attention of decision-makers and getting them to take these issues seriously. It helps to state ethical concerns in multi-disciplinary language. (For example, show that ignoring ethical concerns will cost the company money in the long run.)
- Customer-driven ecologies place customer values like usability, affordability, and efficiency, in the forefront of group deliberation and decision-making. Often, one must play the role of "ethics advocate" in deliberation and decision-making. One is expected to argue forcefully and persistently ("go to the mat") to make sure that ethical considerations are integrated into group deliberations and decision-making.
- Quality-driven companies place ethical values into the core of group deliberations and decision-making. Here one is not so much ethics advocate as ethics enabler. This new role requires that one help one's group find creative ways of integrating ethical values with other concerns like customer and financial values.

### **If you are having problems specifying your problem**

- Try identifying the stakeholders. Stakeholders are any group or individual with a vital interest at stake in the situation at hand.
- Project yourself imaginatively into the perspectives of each stakeholders. How does the situation look from their standpoint? What are their interests? How do they feel about their interests?
- Compare the results of these different imaginative projections. Do any stakeholder interests conflict? Do the stakeholders themselves stand in conflict?
- If the answer to one or both of these questions is "yes" then this is your problem statement. How does one reconcile conflicting stakeholders or conflicting stakeholder interests in this situation?

### **Framing Your Problem**

- We miss solutions to problems because we choose to frame them in only one way.
- For example, the Mountain Terrorist Dilemma is usually framed in only one way: as a dilemma, that is, a forced decision between two equally undesirable alternatives. (Gilbane Gold is also framed as a dilemma: blow the whistle on Z-Corp or go along with the excess pollution.)
- Framing a problem differently opens up new horizons of solution. Your requirement from this point on in the semester is to frame every problem you are assigned in at least two different ways.
- For examples of how to frame problems using socio-technical system analysis see module m14025.

- These different frames are summarized in the next box below.

### Different Frames for Problems

- **Technical Frame:** Engineers frame problems technically, that is, they specify a problem as raising a technical issue and requiring a technical design for its resolution. For example, in the Hughes case, a technical frame would raise the problem of how to streamline the manufacturing and testing processes of the chips.
- **Physical Frame:** In the Laminating Press case, the physical frame would raise the problem of how the layout of the room could be changed to reduce the white powder. Would better ventilation eliminate or mitigate the white powder problem?
- **Social Frame:** In the "When in Aguadilla" case, the Japanese engineer is uncomfortable working with the Puerto Rican woman engineer because of social and cultural beliefs concerning women still widely held by men in Japan. Framing this as a social problem would involve asking whether there would be ways of getting the Japanese engineer to see things from the Puerto Rican point of view.
- **Financial or Market-Based Frames:** The DOE, in the Risk Assessment case below, accuses the laboratory and its engineers of trying to extend the contract to make more money. The supervisor of the head of the risk assessment team pressures the team leader to complete the risk assessment as quickly as possible so as not to lose the contract. These two framings highlight financial issues.
- **Managerial Frame:** As the leader of the Puerto Rican team in the "When in Aguadilla" case, you need to exercise leadership in your team. The refusal of the Japanese engineer to work with a member of your team creates a management problem. What would a good leader, a good manager, do in this situation? What does it mean to call this a management problem? What management strategies would help solve it?
- **Legal Frame:** OSHA may have clear regulations concerning the white powder produced by laminating presses. How can you find out about these regulations? What would be involved in complying with them? If they cost money, how would you get this money? These are questions that arise when you frame the Laminating Press case as a legal problem.
- **Environmental Framing:** Finally, viewing your problem from an environmental frame leads you to consider the impact of your decision on the environment. Does it harm the environment? Can this harm be avoided? Can it be mitigated? Can it be offset? (Could you replant elsewhere the trees you cut down to build your new plant?) Could you develop a short term environmental solution to "buy time" for designing and implementing a longer term solution? Framing your problem as an environmental problem requires that you ask whether this solution harms the environment and whether this harming can be avoided or remedied in some other way.

### 2.5.5 Solution Generation

In solution generation, agents exercise moral creativity by brainstorming to come up with solution options designed to resolve the disagreements and value conflicts identified in the problem specification stage. Brainstorming is crucial to generating nonobvious solutions to difficult, intractable problems. This process must take place within a non-polarized environment where the members of the group respect and trust one another. (See the module on the Ethics of Group Work for more information on how groups can be successful and pitfalls that commonly trip up groups.) Groups effectively initiate the brainstorming process by suspending criticism and analysis. After the process is completed (say, by meeting a quota), then participants can refine the solutions generated by combining them, eliminating those that don't fit the problem, and ranking them in terms of their ethics and feasibility. If a problem can't be solved, perhaps it can be dissolved through reformulation. If an entire problem can't be solve, perhaps the problem can be broken down into parts some of which can be readily solved.

#### Having trouble generating solutions?

- One of the most difficult stages in problem solving is to jump start the process of brainstorming solutions. If you are stuck then here are some generic options guaranteed to get you "unstuck."
- **Gather Information:** Many disagreements can be resolved by gathering more information. Because this is the easiest and least painful way of reaching consensus, it is almost always best to start here. Gathering information may not be possible because of different constraints: there may not be enough time, the facts may be too expensive to gather, or the information required goes beyond scientific or technical knowledge. Sometimes gathering more information does not solve the problem but allows for a new, more fruitful formulation of the problem. Harris, Pritchard, and Rabins in *Engineering Ethics: Concepts and Cases* show how solving a factual disagreement allows a more profound conceptual disagreement to emerge.
- **Nolo Contendere.** Nolo Contendere is latin for not opposing or contending. Your interests may conflict with your supervisor but he or she may be too powerful to reason with or oppose. So your only choice here is to give in to his or her interests. The problem with nolo contendere is that non-opposition is often taken as agreement. You may need to document (e.g., through memos) that your choosing not to oppose does not indicate agreement.
- **Negotiate.** Good communication and diplomatic skills may make it possible to negotiate a solution that respects the different interests. Value integrative solutions are designed to integrate conflicting values. Compromises allow for partial realization of the conflicting interests. (See the module, *The Ethics of Team Work*, for compromise strategies such as logrolling or bridging.) Sometimes it may be necessary to set aside one's interests for the present with the understanding that these will be taken care of at a later time. This requires trust.
- **Oppose.** If nolo contendere and negotiation are not possible, then opposition may be necessary. Opposition requires marshalling evidence to document one's position persuasively and impartially. It makes use of strategies such as leading an "organizational charge" or "blowing the whistle." For more on whistle-blowing consult the discussion of whistle blowing in the Hughes case that can be found at computing cases.
- **Exit.** Opposition may not be possible if one lacks organizational power or documented evidence. Nolo contendere will not suffice if non-opposition implicates one in wrongdoing. Negotiation will not succeed without a necessary basis of trust or a serious value integrative solution. As a last resort, one may have to exit from the situation by asking for reassignment or resigning.

### Refining solutions

- Are any solutions blatantly unethical or unrealizable?
- Do any solutions overlap? Can these be integrated into broader solutions?
- Can solutions be brought together as courses of action that can be pursued simultaneously?
- Go back to the problem specification? Can any solutions be eliminated because they do not address the problem? (Or can the problem be revised to better fit what, intuitively, is a good solution.)
- Can solutions be brought together as successive courses of action? For example, one solution represents Plan A; if it does not work then another solution, Plan B, can be pursued. (You negotiate the problem with your supervisor. If she fails to agree, then you oppose your supervisor on the grounds that her position is wrong. If this fails, you conform or exit.)
- **The goal here is to reduce the solution list to something manageable, say, a best, a second best, and a third best. Try adding a bad solution to heighten strategic points of comparison. The list should be short so that the remaining solutions can be intensively examined as to their ethics and feasibility.**

### 2.5.6 Solution Testing: The solutions developed in the second stage must be tested in various ways.

1. **Reversibility:** Would I still think the choice of this option good if I were one of those adversely affected by it? (Davis uses this formulation in various publications.) I identify different stakeholders

and then take up their roles. Through this imaginative projection, I should consider how the action under consideration will affect them and how they will view, interpret, and experience this affect.

2. **Harm:** Does this option do less harm than any available alternative? Here I try to design an action that will minimize harmful effects. I should factor in the likely results of the action under consideration but I should also evaluate how justly these results will be distributed among stakeholders.
3. **Publicity:** What kind of person will I become if I choose this action? This is Davis' formulation of this test as a virtue test. The key to this test is that you associate the agent with the action. If I (the agent) am publicly judged as a person in terms of this action, what does this say about me as a person? Am I comfortable being judged an irresponsible person on the basis of my being identified with my irresponsible action?
4. **Meta-Test - Convergence:** Do a quick inventory here. Do the ethics tests come together and agree on ranking this solution as a strong one? Then this solution satisfies the convergence meta-test and this provides independent evidence of the strength of the solution.
5. **Meta-Test - Divergence:** Again, do a quick inventory of your solution evaluation matrix results to this point. Do the tests differ or diverge on this point? This is independent evidence of the weakness of this solution. Think about why this solution may be strong under one test but weak under the others.
6. The solution evaluation matrix presented just below models and summarizes the solution testing process.

**Solution Evaluation Matrix**

Solution/Test	Reversibility	Harm	Publicity	Meta-Test: Convergence	Meta-Test: Divergence
Description	Would I still think the choice of this option good if I were one of those adversely affected by it? (Davis)	Does this option do less harm than any available alternative?	What person would I become were I to choose and perform this action? (Associating my character with the moral color of the action.)	Do the three ethics tests (reversibility, harm, publicity) come together on this solution?	Do the three ethics tests (reversibility, harm, publicity) differ on this solution?
<i>continued on next page</i>					

Your best solution					
A good (but not the best) solution					
Your worst solution or a really bad solution					

Table 2.9

### 2.5.7 Solution Implementation

The chosen solution must be examined in terms of how well it responds to various situational constraints that could impede its implementation. What will be its costs? Can it be implemented within necessary time constraints? Does it honor recognized technical limitations or does it require pushing these back through innovation and discovery? Does it comply with legal and regulatory requirements? Finally, could the surrounding organizational, political, and social environments give rise to obstacles to the implementation of the solution? In general this phase requires looking at interest, technical, and resource constraints or limitations. A Feasibility Matrix helps to guide this process.

The Feasibility Tests focuses on situational constraints. How could these hinder the implementation of the solution? Should the solution be modified to ease implementation? Can the constraints be removed or remodeled by negotiation, compromise, or education? Can implementation be facilitated by modifying both the solution and changing the constraints?

Feasibility Matrix		
Resource Constraints	Technical Constraints	Interest Constraints
		Personalities
Time		Organizational
Cost	Applicable Technology	Legal
Materials	Manufacturability	Social, Political, Cultural

Table 2.10

#### Different Feasibility Constraints

1. The Feasibility Test identifies the constraints that could interfere with realizing a solution. This test also sorts out these constraints into **resource** (time, cost, materials), **interest** (individuals, organizations, legal, social, political), and **technical** limitations. By identifying situational constraints, problem-solvers can anticipate implementation problems and take early steps to prevent or mitigate them.
2. **Time.** Is there a deadline within which the solution has to be enacted? Is this deadline fixed or negotiable?
3. **Financial.** Are there cost constraints on implementing the ethical solution? Can these be extended by raising more funds? Can they be extended by cutting existing costs? Can agents negotiate for more money for implementation?
4. **Technical.** Technical limits constrain the ability to implement solutions. What, then, are the technical limitations to realizing and implementing the solution? Could these be moved back by modifying the solution or by adopting new technologies?

5. **Manufacturability.** Are there manufacturing constraints on the solution at hand? Given time, cost, and technical feasibility, what are the manufacturing limits to implementing the solution? Once again, are these limits fixed or flexible, rigid or negotiable?
6. **Legal.** How does the proposed solution stand with respect to existing laws, legal structures, and regulations? Does it create disposal problems addressed in existing regulations? Does it respond to and minimize the possibility of adverse legal action? Are there legal constraints that go against the ethical values embodied in the solution? Again, are these legal constraints fixed or negotiable?
7. **Individual Interest Constraints.** Individuals with conflicting interests may oppose the implementation of the solution. For example, an insecure supervisor may oppose the solution because he fears it will undermine his authority. Are these individual interest constraints fixed or negotiable?
8. **Organizational.** Inconsistencies between the solution and the formal or informal rules of an organization may give rise to implementation obstacles. Implementing the solution may require support of those higher up in the management hierarchy. The solution may conflict with organization rules, management structures, traditions, or financial objectives. Once again, are these constraints fixed or flexible?
9. **Social, Cultural, or Political.** The socio-technical system within which the solution is to be implemented contains certain social structures, cultural traditions, and political ideologies. How do these stand with respect to the solution? For example, does a climate of suspicion of high technology threaten to create political opposition to the solution? What kinds of social, cultural, or political problems could arise? Are these fixed or can they be altered through negotiation, education, or persuasion?

### 2.5.8 Ethics Tests For Solution Evaluation

Three ethics tests (reversibility, harm/beneficence, and public identification) encapsulate three ethical approaches (deontology, utilitarianism, and virtue ethics) and form the basis of stage three of the SDC, solution testing. A fourth test (a value realization test) builds upon the public identification/virtue ethics test by evaluating a solution in terms of the values it harmonizes, promotes, protects, or realizes. Finally a code test provides an independent check on the ethics tests and also highlights intermediate moral concepts such as safety, health, welfare, faithful agency, conflict of interest, confidentiality, professional integrity, collegiality, privacy, property, free speech, and equity/access). The following section provides advice on how to use these tests. More information can be found at [www.computingcases.org](http://www.computingcases.org).

### 2.5.9 Setting Up the Ethics Tests: Pitfalls to avoid

Set-Up Pitfalls: Mistakes in this area lead to the analysis becoming unfocused and getting lost in irrelevancies. (a) Agent-switching where the analysis falls prey to irrelevancies that crop up when the test application is not grounded in the standpoint of a single agent, (b) Sloppy action-description where the analysis fails because no specific action has been tested, (c) Test-switching where the analysis fails because one test is substituted for another. (For example, the public identification and reversibility tests are often reduced to the harm/beneficence test where harmful consequences are listed but not associated with the agent or stakeholders.)

#### Set up the test

1. Identify the agent (the person who is going to perform the action)
2. Describe the action or solution that is being tested (what the agent is going to do or perform)
3. Identify the stakeholders (those individuals or groups who are going to be affected by the action), and their stakes (interests, values, goods, rights, needs, etc.
4. Identify, sort out, and weigh the consequences (the results the action is likely to bring about)

### 2.5.10 Harm/Beneficence Test

- What harms would accompany the action under consideration? Would it produce physical or mental suffering, impose financial or non-financial costs, or deprive others of important or essential goods?
- What benefits would this action bring about? Would it increase safety, quality of life, health, security, or other goods both moral and non-moral?
- What is the magnitude of each these consequences? Magnitude includes likelihood it will occur (probability), the severity of its impact (minor or major harm) and the range of people affected.
- Identify one or two other viable alternatives and repeat these steps for them. Some of these may be modifications of the basic action that attempt to minimize some of the likely harms. These alternatives will establish a basis for assessing your alternative by comparing it with others.
- Decide on the basis of the test which alternative produces the best ratio of benefits to harms?
- Check for inequities in the distribution of harms and benefits. Do all the harms fall on one individual (or group)? Do all of the benefits fall on another? If harms and benefits are inequitably distributed, can they be redistributed? What is the impact of redistribution on the original solution imposed?

#### Pitfalls of the Harm/Beneficence Test

1. "Paralysis of Analysis" comes from considering too many consequences and not focusing only on those relevant to your decision.
2. Incomplete Analysis results from considering too few consequences. Often it indicates a failure of moral imagination which, in this case, is the ability to envision the consequences of each action alternative.
3. Failure to compare different alternatives can lead to a decision that is too limited and one-sided.
4. Failure to weigh harms against benefits occurs when decision makers lack the experience to make the qualitative comparisons required in ethical decision making.
5. Finally, justice failures result from ignoring the fairness of the distribution of harms and benefits. This leads to a solution which may maximize benefits and minimize harms but still give rise to serious injustices in the distribution of these benefits and harms.

### 2.5.11 Reversibility Test

1. Set up the test by (i) identifying the agent, (ii) describing the action, and (iii) identifying the stakeholders and their stakes.
2. Use the stakeholder analysis to identify the relations to be reversed.
3. Reverse roles between the agent (you) and each stakeholder: put them in your place (as the agent) and yourself in their place (as the one subjected to the action).
4. If you were in their place, would you still find the action acceptable?

#### Cross Checks for Reversibility Test (These questions help you to check if you have carried out the reversibility test properly.)

- Does the proposed action treat others with respect? (Does it recognize their autonomy or circumvent it?)
- Does the action violate the rights of others? (Examples of rights: free and informed consent, privacy, freedom of conscience, due process, property, freedom of expression)
- Would you recommend that this action become a universal rule?
- Are you, through your action, treating others merely as means?

#### Pitfalls of the Reversibility Test

- Leaving out a key stakeholder relation
- Failing to recognize and address conflicts between stakeholders and their conflicting stakes
- Confusing treating others with respect with capitulating to their demands ("Reversing with Hitler")

- Failing to reach closure, i.e., an overall, global reversal assessment that takes into account all the stakeholders the agent has reversed with.

### 2.5.12 Steps in Applying the Public Identification Test

- Set up the analysis by identifying the agent, describing the action, and listing the key values or virtues at play in the situation.
- Association the action with the agent.
- Describe what the action says about the agent as a person. Does it reveal him or her as someone associated with a virtue or a vice?

### Alternative Version of Public Identification

- Does the action under consideration realize justice or does it pose an excess or defect of justice?
- Does the action realize responsibility or pose an excess or defect of responsibility?
- Does the action realize reasonableness or pose too much or too little reasonableness?
- Does the action realize honesty or pose too much or too little honesty?
- Does the action realize integrity or pose too much or too little integrity?

### Pitfalls of Public Identification

- Action not associated with agent. The most common pitfall is failure to associate the agent and the action. The action may have bad consequences and it may treat individuals with respect but these points are not as important in the context of this test as what they imply about the agent as a person who deliberately performs such an action.
- Failure to specify moral quality, virtue, or value. Another pitfall is to associate the action and agent but only ascribe a vague or ambiguous moral quality to the agent. To say, for example, that willfully harming the public is bad fails to zero in on precisely what moral quality this ascribes to the agent. Does it render him or her unjust, irresponsible, corrupt, dishonest, or unreasonable? The virtue list given above will help to specify this moral quality.

### 2.5.13 Code of Ethics Test

- Does the action hold paramount the health, safety, and welfare of the public, i.e., those affected by the action but not able to participate in its design or execution?
- Does the action maintain faithful agency with the client by not abusing trust, avoiding conflicts of interest, and maintaining confidences?
- Is the action consistent with the reputation, honor, dignity, and integrity of the profession?
- Does the action serve to maintain collegial relations with professional peers?

### 2.5.14 Meta Tests

- The ethics and feasibility tests will not always converge on the same solution. There is a complicated answer for why this is the case but the simple version is that the tests do not always agree on a given solution because each test (and the ethical theory it encapsulates) covers a different domain or dimension of the action situation. Meta tests turn this disadvantage to your advantage by feeding the interaction between the tests on a given solution back into the evaluation of that solution.
- When the ethics tests converge on a given solution, this convergence is a sign of the strength and robustness of the solution and counts in its favor.
- When a given solution responds well to one test but does poorly under another, this is a sign that the solution needs further development and revision. It is not a sign that one test is relevant while the others are not. Divergence between test results is a sign that the solution is weak.



### 2.5.15 Application Exercise

You will now practice the four stages of decision making with a real world case. This case, Risk Assessment, came from a retreat on Business, Science, and Engineering Ethics held in Puerto Rico in December 1998. It was funded by the National Science Foundation, Grant SBR 9810253.

#### **Risk Assessment Scenario**

Case Scenario: You supervise a group of engineers working for a private laboratory with expertise in nuclear waste disposal and risk assessment. The DOE (Department of Energy) awarded a contract to your laboratory six years ago to do a risk assessment of various nuclear waste disposal sites. During the six years in which your team has been doing the study, new and more accurate calculations in risk assessment have become available. Your laboratory's study, however, began with the older, simpler calculations and cannot integrate the newer without substantially delaying completion. You, as the leader of the team, propose a delay to the DOE on the grounds that it is necessary to use the more advanced calculations. Your position is that the laboratory needs more time because of the extensive calculations required; you argue that your group must use state of the art science in doing its risk assessment. The DOE says you are using overly high standards of risk assessment to prolong the process, extend the contract, and get more money for your company. They want you to use simpler calculations and finish the project; if you are unwilling to do so, they plan to find another company that thinks differently. Meanwhile, back at the laboratory, your supervisor (a high level company manager) expresses to you the concern that while good science is important in an academic setting, this is the real world and the contract with the DOE is in jeopardy. What should you do?

#### **Part One: Problem Specification**

1. Specify the problem in the above scenario. Be as concise and specific as possible
2. Is your problem best specifiable as a disagreement? Between whom? Over what?
3. Can your problem be specified as a value conflict? What are the values in conflict? Are the moral, nonmoral, or both?

#### **Part Two: Solution Generation**

1. Quickly and without analysis or criticism brainstorm 5 to ten solutions
2. Refine your solution list. Can solutions be eliminated? (On what basis?) Can solutions be combined? Can solutions be combined as plan a and plan b?
3. If you specified your problem as a disagreement, how do your solutions resolve the disagreement? Can you negotiate interests over positions? What if your plan of action doesn't work?
4. If you formulated your problem as a value conflict, how do your solutions resolve this conflict? By integrating the conflicting values? By partially realizing them through a value compromise? By trading one value off for another?

#### **Part Three: Solution Testing**

1. Construct a solution evaluation matrix to compare two to three solution alternatives.
2. Choose a bad solution and then compare to it the two strongest solutions you have.
3. Be sure to avoid the pitfalls described above and set up each test carefully.

#### **Part Four: Solution Implementation**

1. Develop an implementation plan for your best solution. This plan should anticipate obstacles and offer means for overcoming them.
2. Prepare a feasibility table outlining these issues using the table presented above.
3. Remember that each of these feasibility constraints is negotiable and therefore flexible. If you choose to set aside a feasibility constraint then you need to outline how you would negotiate the extension of that constraint.

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### Decision-Making Presentation

This media object is a downloadable file. Please view or download it at  
 <Decision Making Manual V4.pptx>

**Figure 2.8:** Clicking on this figure will allow you to open a presentation designed to introduce problem solving in ethics as analogous to that in design, summarize the concept of a socio-technical system, and provide an orientation in the four stages of problem solving. This presentation was given February 28, 2008 at UPRM for ADMI 6005 students, Special Topics in Research Ethics.

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### Problem Solving Presentation

[MEDIA OBJECT]<sup>14</sup>

### Shortened Presentation for Fall 2012

[MEDIA OBJECT]<sup>15</sup>

### Vigo Socio-Technical System Table and Problems

[MEDIA OBJECT]<sup>16</sup>

### Decision Making Worksheet

This media object is a downloadable file. Please view or download it at  
 <Decision Making Worksheet.docx>

**Figure 2.9:** This exercise is designed to give you practice with the three frameworks described in this module. It is based on the case, "When in Aguadilla."

### Test Rubric Fall 2009: Problem-Solving

[MEDIA OBJECT]<sup>17</sup>

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<sup>14</sup>This media object is a downloadable file. Please view or download it at  
 <Decision Making Manual V5.pptx>

<sup>15</sup>This media object is a downloadable file. Please view or download it at  
 <Decision Making Manual V6.pptx>

<sup>16</sup>This media object is a downloadable file. Please view or download it at  
 <Vigo STS.docx>

<sup>17</sup>This media object is a downloadable file. Please view or download it at  
 <PE\_Rubric\_EO\_S09.docx>

## Chapter 3

# Collective and Corporate Environment

### 3.1 Ethics of Teamwork<sup>1</sup>

- Ethics of Team Work
- William J. Frey (working with material developed by Chuck Huff at St. Olaf College)
- Centro de la Etica en las Profesiones
- University of Puerto Rico - Mayaguez

#### 3.1.1 Module Introduction

Much of your future work will be organized around group or team activities. This module is designed to prepare you for this by getting you to reflect on ethical and practical problems that arise in small groups like work teams. Four issues, based on well-known ethical values, are especially important. How do groups achieve justice (in the distribution of work), responsibility (in specifying tasks, assigning blame, and awarding credit), reasonableness (ensuring participation, resolving conflict, and reaching consensus), and honesty (avoiding deception, corruption, and impropriety)? This module asks that you develop plans for realizing these moral values in your group work this semester. Furthermore, you are provided with a list of some of the more common pitfalls of group work and then asked to devise strategies for avoiding them. Finally, at the end of the semester, you will review your goals and strategies, reflect on your successes and problems, and carry out an overall assessment of the experience.

#### 3.1.2 Module Activities

1. Groups are provided with key ethical values that they describe and seek to realize through group activity.
2. Groups also study various obstacles that arise in collective activity: the Abilene Paradox, Groupthink, and Group Polarization.
3. Groups prepare initial reports consisting of plans for realizing key values in their collective activity. They also develop strategies for avoiding associated obstacles.
4. At the end of the semester, groups prepare a self-evaluation that assesses success in realizing ethical values and avoiding obstacles.
5. Textboxes in this module describe pitfalls in groups activities and offer general strategies for preventing or mitigating them. There is also a textbox that provides an introductory orientation on key ethical values or virtues.

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m13760/1.18/>>.

### 3.1.3 A Framework for Value-Integration

The objective of this module is to teach you to teach yourselves how to work in small groups. You will develop and test procedures for realizing value goals and avoiding group pitfalls. You will also use Socio-Technical System Analysis to help you understand better how to take advantage of the way in which different environments enable groups activities and to anticipate and minimize the way in which other environments can constrain or even oppose group activities.

- **Discovery:** "The goal of this activity is to 'discover' the values that are relevant to, inspire, or inform a given design project, resulting in a list of values and bringing into focus what is often implicit in a design project." [Flanagan et al. 323]. Discovery of group values is a trial and error process. To get started, use the ADEM Statement of Values or the short value profiles listed below.
- **Translation:** "[T]ranslation is the activity of embodying or expressing...values in a system design. Translation is further divided into operationalization, which involves defining or articulating values in concrete terms, and implementation which involves specifying corresponding design features" [Flanagan et al., 338]. You will operationalize your values by developing profiles. (See below or the ADEM Statement of Values for examples.) Then you will implement your values by developing realization procedures. For example, to realize justice in carrying out a group task, first we will discuss the task as a group, second we will divide it into equal parts, third, forth, etc.
- **Verification:** "In the activity of verification, designers assess to what extent they have successfully implemented target values in a given system. [Strategies and methods] may include internal testing among the design team, user testing in controlled environments, formal and informal interviews and surveys, the use of prototypes, traditional quality assurance measures such as automated and regression-oriented testing and more" [Flanagan et al., 344-5]. You will document your procedures in the face of different obstacles that may arise in your efforts at value-realization. At the end of your semester, you will verify your results by showing how you have refined procedures to more effectively realize values.

The framework on value realization and the above-quoted passages can be found in the following resource: M. Flanagan, D. Howe, and H. Nissenbaum, "Embodying Values in Technology: Theory and Practice," in **Information Technology and Moral Philosophy**, Jeroen van den Hoven and John Weckert, Eds. Cambridge, UK: Cambridge University Press, 2008, pp. 322-353.

### 3.1.4 Value Profiles for Professional Ethics

1. **Definition** - A **value** "refers to a claim about what is worthwhile, what is good. A value is a single word or phrase that identifies something as being desirable for human beings." Brincat and Wike, *Morality and the Professional Life: Values at Work*
2. **Reasonableness** - Defusing disagreement and resolving conflicts through integration. Characteristics include seeking relevant information, listening and responding thoughtfully to others, being open to new ideas, giving reasons for views held, and acknowledging mistakes and misunderstandings. (From Michael Pritchard, *Reasonable Children*)
3. **Responsibility** - The ability to develop moral responses appropriate to the moral issues and problems that arise in one's day-to-day experience. Characteristics include avoiding blame shifting, designing overlapping role responsibilities to fill responsibility "gaps", expanding the scope and depth of general and situation-specific knowledge, and working to expand control and power.
4. **Respect** - Recognizing and working not to circumvent the capacity of autonomy in each individual. Characteristics include honoring rights such as privacy, property, free speech, due process, and participatory rights such as informed consent. Disrespect circumvents autonomy by deception, force, or manipulation.
5. **Justice** - Giving each his or her due. Justice breaks down into kinds such as distributive (dividing benefits and burdens fairly), retributive (fair and impartial administration of punishments), administrative (fair and impartial administration of rules), and compensatory (how to fairly recompense those who have been wrongfully harmed by others).

6. **Trust** - According to Solomon, trust is the expectation of moral behavior from others.
7. **Honesty** - Truthfulness as a mean between too much honesty (bluntness which harms) and dishonesty (deceptiveness, misleading acts, and mendaciousness).
8. **Integrity** - A meta-value that refers to the relation between particular values. These values are integrated with one another to form a coherent, cohesive and smoothly functioning whole. This resembles Solomon's account of the virtue of integrity.

### 3.1.5 Exercise 1: Developing Strategies for Value Realization

#### Directions

1. Identify value goals. Start with two or three. You can add or subtract from these as the semester progresses.
2. Give a brief description of each using terms that reflect your group's shared understandings. You may use the descriptions in this module or those in the ADEM Statement of Values but feel free to modify these to fit your group's context. You could also add characteristics and sample rules and aspirations.
3. For each value goal, identify and spell out a procedure for realizing it. See the examples just below for questions that can help you develop value procedures for values like justice and responsibility.

#### Examples

- Design a plan for realizing key moral values of team work. Your plan should address the following value-based tasks
- How does your group plan on realizing justice? For example, how will you assign tasks within the group that represent a fair distribution of the work load and, at the same time, recognize differences in individual strengths and weaknesses? How does your group plan on dealing with members who fail to do their fair share?
- How does your group plan on realizing responsibility? For example, what are the responsibilities that members will take on in the context of collective work? Who will be the leader? Who will play devil's advocate to avoid groupthink? Who will be the spokesperson for the group? How does your group plan to make clear to each individual his or her task or role responsibilities?
- How does your group plan on implementing the value of reasonableness? How will you guarantee that each individual participates fully in group decisions and activities? How will you deal with the differences, non-agreements, and disagreements that arise within the group? What process will your group use to reach agreement? How will your group insure that every individual has input, that each opinion will be heard and considered, and that each individual will be respected?
- How does your group plan on implementing the value of (academic) honesty? For example, how will you avoid cheating or plagiarism? How will you detect plagiarism from group members, and how will you respond to it?
- Note: Use your imagination here and be specific on how you plan to realize each value. Think preventively (how you plan on avoiding injustice, irresponsibility, injustice, and dishonesty) and proactively (how you can enhance these values). Don't be afraid to outline specific commitments. Expect some of your commitments to need reformulation. At the end of the semester, this will help you write the final report. Describe what worked, what did not work, and what you did to fix the latter.

### 3.1.6 Obstacles to Group Work (Developed by Chuck Huff for Good Computing: A Virtue Approach to Computer Ethics)

1. The **Abilene Paradox**. "The story involves a family who would all rather have been at home than ends up having a bad dinner in a lousy restaurant in Abilene, Texas. Each believes the others want to go to Abilene and never questions this by giving their own view that doing so is a bad idea. In

the Abilene paradox, the group winds up doing something that no individual wants to do because of a breakdown of intra-group communication." (From Huff, *Good Computing*, an unpublished manuscript for a textbook in computer ethics. See materials from Janis; complete reference below.)

2. **Groupthink.** The tendency for very cohesive groups with strong leaders to disregard and defend against information that goes against their plans and beliefs. The group collectively and the members individually remain loyal to the party line while happily marching off the cliff, all the while blaming "them" (i.e., outsiders) for the height and situation of the cliff. (Also from Huff, *Good Computing*, an unpublished manuscript for a textbook in computer ethics.)
3. **Group Polarization.** Here, individuals within the group choose to frame their differences as disagreements. Framing a difference as non-agreement leaves open the possibility of working toward agreement by integrating the differences or by developing a more comprehensive standpoint that dialectally synthesizes the differences. Framing a difference as disagreement makes it a zero sum game; one's particular side is good, all the others bad, and the only resolution is for the good (one's own position) to win out over the bad (everything else). (Weston provides a nice account of group polarization in *Practical Companion to Ethics*. This is not to be confused with Cass Sunstein's different account of group polarization in *Infotopia*.)
4. Note: All of these are instances of a social psychological phenomenon called conformity. But there are other processes at work too, like group identification, self-serving biases, self-esteem enhancement, self-fulfilling prophecies, etc.

### More Obstacles to Group Work

- **Free Riders:** Free riders are individuals who attempt to "ride for free" on the work of the other members of the group. Some free riders cynically pursue their selfish agenda while others fall into this pitfall because they are unable to meet all their obligations. (See conflict of effort.)
- **Outliers:** These are often mistaken for free riders. Outliers want to become participants but fail to become fully integrated into the group. This could be because they are shy and need encouragement from the other group members. It could also be because the other group members know one another well and have habitual modes of interaction that exclude outsiders. One sign of outliers; they do not participate in group social activities but they still make substantial contributions working by themselves. ("No, I can't come to the meeting—just tell me what I have to do.")
- **Hidden Agendas:** Cass Sunstein introduces this term. A group member with a "hidden agenda" has something he or she wants to contribute but, for some reason or other, hold back. For example, this individual may have tried to contribute something in the past and was "shot down" by the group leader. The next time he or she will think, "Let them figure it out without me."
- **Conflict of Effort:** conflict of Effort often causes an individual to become a free rider or an outlier. These group members have made too many commitments and come unraveled when they all come due at the same time. Students are often overly optimistic when making out their semester schedules. They tightly couple work and class schedules while integrating home responsibilities. Everything goes well as long as nothing unusual happens. But if a coworker gets sick and your supervisor asks you to come in during class times to help out, or you get sick, it becomes impossible to keep the problem from "spilling out" into other areas of your schedule and bringing down the whole edifice. Developing a schedule with periods of slack and flexibility can go a long way toward avoiding conflict of effort. Groups can deal with this by being supportive and flexible. (But it is important to draw the line between being supportive and carrying a free rider.)

### Best Practices for Avoiding Abilene Paradox

- At the end of the solution generating process, carry out an anonymous survey asking participants if anything was left out they were reluctant to put before group.
- Designate a Devil's Advocate charged with criticizing the group's decision.
- Ask participants to reaffirm group decision—perhaps anonymously.

### Best Practices for Avoiding Groupthink (Taken from Janis, 262-271)

- "The leader of a policy-forming group should assign the role of critical evaluator to each member, encouraging the group to give high priority to airing objections and doubts."
- "The leaders in an organization's hierarchy, when assigning a policy-planning mission to a group, should be impartial instead of stating preferences and expectations at the outset."
- "Throughout the period when the feasibility and effectiveness of policy alternatives are being surveyed, the policy-making group should from time to time divide into two or more subgroups to meet separately...."
- One or more outside experts or qualified colleagues within the organization who are not core members of the policy-making group should be invited to each meeting ...and should be encouraged to challenge the views of the core members."
- "At every meeting devoted to evaluating policy alternatives, at least one member should be assigned the role of devil's advocate."

### Best Practices for Avoiding Polarization (Items taken from "Good Computing: A Virtue Approach to Computer Ethics" by Chuck Huff, William Frey and Jose Cruz (Unpublished Manuscript))

- **Set Quotas.** When brainstorming, set a quota and postpone criticism until after quota has been met.
- **Negotiate Interests, not Positions.** Since it is usually easier to integrate basic interests than specific positions, try to frame the problem in terms of interests.
- **Expanding the Pie.** Conflicts that arise from situational constraints can be resolved by pushing back those constraints through negotiation or innovation..
- **Nonspecific Compensation.** One side makes a concession to the other but is compensated for that concession by some other coin.
- **Logrolling.** Each party lowers their aspirations on items that are of less interest to them, thus trading off a concession on a less important item for a concession from the other on a more important item.
- **Cost-Cutting.** One party makes an agreement to reduce its aspirations on a particular thing, and the other party agrees to compensate the party for the specific costs that reduction in aspirations involves.
- **Bridging.** Finding a higher order interest on which both parties agree, and then constructing a solution that serves that agreed-upon interest.

### 3.1.7 Exercise 2 - Avoiding the Pitfalls of Group Work

- Design a plan for avoiding the pitfalls of group work enumerated in the textbox above.
- How does your group plan on avoiding the Abilene Paradox?
- How does your group plan on avoiding Group Polarization?
- How does your group plan on avoiding Groupthink?
- Note: Use imagination and creativity here. Think of specific scenarios where these obstacles may arise, and what your group can do to prevent them or minimize their impact.

### 3.1.8 Exercise 3: Socio Technical System

Your group work this semester will take place within a group of nested or overlapping environments. Taken separately and together, these will structure and channel your activity, facilitating action in certain circumstances while constraining, hindering, or blocking it in others. Prepare a socio-technical system table for your group to help structure your group self-evaluation. Include hardware/software, physical surroundings, stakeholders (other groups, teacher, other classes, etc.), procedures (realizing values, avoiding pitfalls), university regulations (attendance), and information structures (collecting, sharing, disseminating)

#### Some things about Socio-Technical Systems

1. Socio-Technical System Analysis provides a tool to uncover the different environments in which business activity takes place and to articulate how these constrain and enable different business practices.
2. A socio-technical system can be divided into different components such as hardware, software, physical surroundings, people/groups/roles, procedures, laws/statutes/regulations, and information systems.
3. But while these different components can be distinguished, they are in the final analysis inseparable. STSs are, first and foremost, systems composed of interrelated and interacting parts.
4. STSs also embody values such as moral values (justice, responsibility, respect, trust, integrity) and non-moral values (efficiency, satisfaction, productivity, effectiveness, and profitability). These values can be located in one or more of the system components. They come into conflict with one another causing the system to change.
5. STSs change and this change traces out a path or trajectory. The normative challenge of STS analysis is to find the trajectory of STS change and work to make it as value-realizing as possible.

Socio-Technical System Table for Groups

Hardware/Software	Physical Surroundings	Stakeholders	Procedures	University Regulations	Information Structures
Think about the new role for your smart phones in group work in class. Will you be using Google Docs to exchange documents?	How does the classroom and the arrangement of objects within it constrain and enable group activities?	Think about other teachers, classes, supervisors, jobs, and other individuals that can have an impact on your ability to carry out group assignments.	Name but don't describe in detail, the value-realizing procedures your group is adopting.	What are university regulations that will have an impact on your group work. For example, switches between MWF and TTH schedules.	There is a wealth of information and skill locked in each of your group's members. How will you unleash these and telescope them into group work and activities? How, in other words, will you work to maximize group synergies and minimize group disadvantages?

Table 3.1

Exercises 1-3 compose the Preliminary Self-Evaluation which is due shortly after semester-long groups are formed. Exercise 4 is the close-out group self evaluation which is due at the end of the semester.

### 3.1.9 Exercise 4: Prepare a Final, Group Self-Evaluation

- Due Date: One week after the last class of the semester when your group turns in all its materials.
- Length: A minimum of five pages not including Team Member Evaluation Forms
- Contents:
  1. Restate the Ethical and Practical Goals that your group developed at the beginning of its formation.



- 2. Provide a careful, documented assessment of your group's success in meeting these goals. (Don't just assert that "Our group successfully realized justice in all its activities this semester." How did your group characterize justice in the context of its work? What specific activities did the group carry out to realize this value? What, among these activities, worked and what did not work?)
- 3. Identify obstacles, shortcomings or failures that your group experienced during the semester. How did these arise? Why did they arise? How did you respond to them? Did your response work? What did you learn from this experience?
- 4. Assess the plans you set forth in your initial report on how you intended to realize values and avoid pitfalls. How did these work? Did you stick to your plans or did you find it necessary to change or abandon them in the face of challenges?
- 5. Discuss your group's procedures and practices? How did you divide and allocate work tasks? How did you reach consensus on difficult issues? How did you ensure that all members were respected and allowed significant and meaningful participation? What worked and what did not work with respect to these procedures? Will you repeat them in the future? Would you recommend these procedures as best practices to future groups?
- 6. What did you learn from your experience working as a team this semester? What will require further reflection and thought? In other words, conclude your self-evaluation with a statement that summarizes your experience working together as a team this semester.

#### Appendix for ADMI 4016, Falkl 2013 and following

- What are the results of your group's challenge to the College of Business Administration's Statement of Values? (This can be found in Developing Ethics Codes and Statements of Value. See exercise 2. <http://cnx.org/content/m14319/1.11/>)
- What is your group's CID Structure? See presentation two at the bottom of the module, A Short History of the Corporation. <http://cnx.org/content/m17314/1.7/>

#### 3.1.10 Wrap Up: Some further points to consider...

1. Don't gloss over your work with generalizations like, "Our group was successful and achieved all of its ethical and practical goals this semester." Provide evidence for success claims. Detail the procedures designed by your group to bring about these results. Are they "best practices"? What makes them best practices?
2. Sometimes—especially if difficulties arose—it is difficult to reflect on your group's activities for the semester. Make the effort. Schedule a meeting after the end of the semester to finalize this reflection. If things worked well, what can you do to repeat these successes in the future? If things didn't work out, what can you do to avoid similar problems in the future? Be honest, be descriptive and avoid blame language.
3. This may sound harsh but get used to it. Self-evaluations—group and individual—are an integral part of professional life. They are not easy to carry out, but properly done they help to secure success and avoid future problems.
4. Student groups—perhaps yours—often have problems. This self-evaluation exercise is designed to help you face them rather than push them aside. Look at your goals. Look at the strategies you set forth for avoiding Abilene, groupthink, and group polarization. Can you modify them to deal with problems? Do you need to design new procedures?

#### 3.1.11 Ethics of Team Work Presentations

##### Values in Team Work (Thought Experiments)

[MEDIA OBJECT]<sup>2</sup>

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<sup>2</sup>This media object is a downloadable file. Please view or download it at  
<Ethics of Team Work.pptx>

**Pitfalls to Avoid in Group Work**[MEDIA OBJECT]<sup>3</sup>**Thought Experiments on Group Work**[MEDIA OBJECT]<sup>4</sup>**Team Member Evaluation Forms (Required)**[MEDIA OBJECT]<sup>5</sup>**New Ethics of Teamwork Presentation (Spring 2012)**[MEDIA OBJECT]<sup>6</sup>**3.1.12 Ethics of Teamwork Jeopardy**[MEDIA OBJECT]<sup>7</sup>**3.1.13 Bibliography**

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2. Flores, F. and Solomon, R. (2003). **Building Trust: In Business, Politics, Relationships and Life**. Oxford, UK: Oxford University Press.
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**3.2 A Short History of the Corporation<sup>8</sup>****HOW TO EDIT:**


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<sup>3</sup>This media object is a downloadable file. Please view or download it at  
<Pitfalls to Avoid in Group Work.pptx>

<sup>4</sup>This media object is a downloadable file. Please view or download it at  
<Thought Experiments on Group Work.docx>

<sup>5</sup>This media object is a downloadable file. Please view or download it at  
<TEAM MEMBER RATING SHEET-3.docx>

<sup>6</sup>This media object is a downloadable file. Please view or download it at  
<Ethics of Teamwork.pptx>

<sup>7</sup>This media object is a downloadable file. Please view or download it at  
<Team\_Jeopardy.pptx>

<sup>8</sup>This content is available online at <<http://cnx.org/content/m17314/1.8/>>.

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### Word Version of this Template

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**Figure 3.1:** This is an example of an embedded link. (Go to "Files" tab to delete this file and replace it with your own files.)

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## 3.2.1 Introduction

In this module you will learn about the history of corporations. Antecedents of the modern corporation can be found in the Middle Ages, the Renaissance, and in the Industrial Revolution in Great Britain and the United States. Corporations have evolved into their present form as the synthesis of discrete solutions to specific historical problems that have arisen in the practice of business. This module has been designed for courses in (1) business, society, and government, (2) business ethics, (3) corporate governance, and (4) corporate social responsibility.

## 3.2.2 What you need to know . . .

### 3.2.2.1 The History of the Corporation

**This historical process has produced five functions that characterize the modern corporation. Corporations have emerged as...**

1. "Passive devices" that hold property
2. Structures designed to exert monopoly control over and regulate a domain of specialized knowledge and skill
3. Means designed to pool capital and resources including human resources
4. A legal shield that protects owners and investors from liability and helps to spread and distribute financial, moral, and legal risk
5. Organizational decision-making structures that subordinate and synthesize the actions of human agents to bring about collective goals such as building a railroad, designing and manufacturing automobiles, and pursuing legitimate business ventures.

#### 3.2.2.1.1 Passive Devices that hold property

When the abbot of a medieval monastery died, public officials had difficulty determining to whom its property, wealth, and resources passed. While this is hard to conceptualize from a modern standpoint, during the Middle Ages, no legal distinction could be made between (1) managing property owned by others, (2) exercising stewardship over property owned by others, and (3) owning property. Moreover, the concept and practice of owning property is complex. "Property" in its modern sense has been spelled out as a bundle of distinct rights including "the right to possess, control, use, benefit from, dispose of and exclude others from the property." (DesJardins: 37) These distinct rights are not given as entailments of a natural concept of property but represent legally endowed capacities designed to respond to specific practical problems. So, to return to the problem created by the death of the abbot, a legal entity (called the church) was created and endowed with the one of the bundled rights accompanying the notion of property, namely, the right to possess and hold property (Stone 1974: 11)

### 3.2.2.1.2 Structures that exert monopoly control and regulate a domain of specialized

Those familiar with European history know that the university came from student guilds. Students banded together to hire noted scholars willing to teach their research. Other guilds were formed around practical occupations as butchering or shoe making. Eventually, guilds evolved to address a series of practical problems: (1) how to educate individuals concerning the skills and knowledge required by the practice, (2) how to identify those responsible for the improper practice of the craft, (3) how to control who could and could not participate in (and profit from) the craft, and (4) how to regulate the craft to promote the interests of its practitioners and its beneficiaries or clients. Guilds became responsible for controlling the privileges of a trade, establishing rules and standards of practice, and holding courts to adjudicate grievances between participants. (Stone: 11-13)

### 3.2.2.1.3 A set of means specially designed to pool capital and resources including human resources.

As business ventures became more ambitious, their successful execution required raising considerable funds and capital along with the coordination of the activities of diverse human agents. Organizational structures were created slowly over time to raise money, acquire capital, and manage these complex ventures. This included creating roles that were coordinated through complex organizational systems. The distinction between the **owner** and **manager** functions, so crucial to the structure of the modern corporation, emerged slowly during this period. Owners provided money and capital and determined the overall goals pursued by the organization. Managers carried out administrative tasks concerned with day to day operations; their moral and legal duty was to remain faithful to the aims and interests of the owners. Unchartered joint stock companies served as proto-corporations that generated capital, protected monopolies of trade and craft, and managed complex ventures such as importing spices and tea from the Orient. As these structures evolved, they increasingly embodied the important distinction between the ownership and management functions.

### 3.2.2.1.4 Providing a legal shield to limit owner and operator liability

Scandals in 18th century Great Britain revealed another set of problems besetting the emerging corporation. When the unchartered joint stock company, the South Sea Company, went bankrupt, all the investors and owners found themselves responsible for covering the huge debt created when risky investments and questionable ventures went sour. This debt went well beyond resources of the investors destroying their personal fortunes and placing many of them in debtor's prison. (This and other fiascoes were dramatized by Charles Dickens in his novel, **Little Dorrit**.) The specter of unlimited liability scared off potential investors and set back the development of the corporation. It became necessary to endow joint stock companies with powers and devices that limited and distributed financial, moral, and legal risk. (Both owners and managers required protection although in different ways.) Individuals would invest in joint stock companies only when the associated risks became manageable and widely distributed.

### 3.2.2.1.5 Organizational structure that subordinate and synthesize the actions of human agents

**Negatively**, the development of the modern corporation was facilitated by creating a shield that limited the liability of owners and managers. Liability for owners was limited legally to the amount invested. Liability for managers required proving that they failed to remain faithful to the interests of the stockholders, the principals or originators of their actions. This broke down into demonstrating failure to exercise "sound business judgment" by, among other things, allowing outside, competing interests to corrupt their business judgment. **Positively**, the corporation emerged out of a series of legal innovations designed to establish and then control the collective power of corporate organizations. Complex organizational structures were created that designed differentiated roles filled by employees. These structures served to channel the activities of employees toward corporate ends. The investor role stabilized into that of **stockholders** who owned or held shares of the corporation. To promote their interests and to establish the cardinal or fundamental objectives of the corporation, the stockholders elected representatives to serve on a board of directors. The directors

then appointed managers responsible for running the corporation and realizing the interests and objectives of the stockholders. Managers, in turn, hired and supervised employees who executed the company's day to day operations (**line** employees) and provided expert advice (**staff** employees). These roles (and the individuals who occupied them) were related to one another through complex decision-making hierarchies. Davis (1999) in his discussion of the Hitachi Report shows how many modern companies have dropped or deemphasized the staff-line distinction. Others (Stone, Nader) cite instances where managers have become so powerful that they have supplanted the directorial role. (They hand pick the directors and carefully filter the information made available to stockholders.) But these two distinctions (staff v. line and owner v. operator) remain essential for understanding and classifying modern corporations. (See Fisse, Stone, and Nader.)

### 3.2.2.1.6 Profile of the Modern Corporation

Corporations became full blown legal persons. They acquired **legal standing** (can sue and be sued), have been endowed with **legal rights** (due process, equal protection, and free speech), and have acquired **legal duties** (such as tax liabilities). (See table below for the common law decisions through which these corporate powers and rights have been established.) The powers of the corporation were regulated by the state through founding charters which served roughly the same function for a corporation as a constitution did for a state. Initially, charters limited corporate powers to specific economic activities. Railroad companies, for example, had charters that restricted their legitimate operations to building and operating railroads. When they sought to expand their operations to other activities they had to relate these to the powers authorized in the founding charter. If a charter did not specifically allow an operation or function, then it was literally **ultra vires**, i.e., beyond the power of the corporation (Stone: 21-22). This method of control gradually disappeared as states, competing to attract business concerns to incorporate within their borders, began to loosen charter restrictions and broaden legitimate corporate powers in a process called "charter mongering." Eventually charters defined the legitimate powers of corporations so broadly that they ceased to be effective regulatory vehicles.

Given this vacuum, governments have had to resort to other measures to control and direct corporations toward the public good. The practice of punishment, effective in controlling human behavior, was extended to corporations. But Baron Thurlow (a British legal theorist) framed the central dilemma in corporate punishment with his oft quoted comment that corporations cannot be punished because they have "no soul to damn" and "no body to kick." The unique attributes of corporations has given rise to creative options for corporate control and punishment: fining, stock dilution, court-mandated changes in corporate structure, adverse publicity orders, and community service. (See Fisse) Most recently, Federal Sentencing Guidelines have sought to provide incentives for corporations to take preventive measures to avoid wrongdoing by developing ethics compliance programs. These guidelines adjust punishments in light of ethics programs that the corporations have designed and implemented to prevent wrongdoing. Corporations found guilty of wrongdoing would still be punished. But punishments can be reduced when guilty corporations show that they have developed and implemented compliance programs to promote organizational ethics and to prevent corporate wrongdoing. These include compliance codes, ethics training programs, ethics risk identification measures, and corporate ethical audits.

### History of Corporation

Problem	Solution	Organizational Form
<i>continued on next page</i>		

Successfully transferring stewardship over church holdings to new abbot	Create a "passive device to hold property"	Proto-corporation
Control over and regulation of a practice or skill	Create a device to (a) hold the privileges of some particular trade, (b) establish rules and regulations for commerce, and (c) hold courts to adjudicate grievances among members.	Medieval guilds that evolve into regulated companies.
Pooling capital and resources and directing complex ventures	Create a device (a) to hold privileges of trade, (b) where investors provide capital, and (c) that delegates operations to managers	Unchartered joint stock companies
Limiting investor liability, limiting manager liability, and balancing the two	Corporation evolves into a legal person with (a) legal rights and duties, (b) owned by shareholders, (c) run by managers, (d) regulated through state charter	Limited corporation whose operations are defined in and limited by the charter
Ultra Vires (charter prevents growth) and Charter Mongering	Granted broad powers through more broadly defined charters	Full Blown Corporation
Finding agent responsible for wrongdoing	(a) Due process, equal protection, and free speech rights, (b) legal duties, (c) legal standing, (d) Federal Sentencing Guidelines, and Sarbanes-Oxley Act	Corporation as <b>Legal</b> Person

Table 3.2: Modified from Christopher Stone, Where the Law Ends

## Options for Corporate Punishment (Fisse and French)

	Description	Example	Target of Punishment	Deterrence Trap Avoided?	Non-financial Values Addressed?	Responsive Adjustment	Interference with Corporate Black Box
continued on next page							

<b>Monetary Exaction</b>	Fines	Pentagon Procurement Scandals	Harms innocent	Fails to Escape	Few or None Targeted	None	No interference
<b>Stock Dilution</b>	Dilute Stock and award to victim		Stockholders (Not necessarily guilty)	Escapes by attacking future earnings	Few or None	Limited	No interference
<b>Probation</b>	Court orders internal changes (special board appointments)	SEC Voluntary Disclosure Program	Corporation and its Members	Escapes since it mandates organizational changes	Focuses on management and subgroup values	Passive adjustment since imposed from outside	Substantial entry into and interference with corporate black box
<b>Court Ordered Adverse Publicity</b>	Court orders corporation to publicize crime	English Bread Acts (Hester Prynne shame in <b>Scarlet Letter</b> )	Targets corporate image	Escapes (although adverse publicity indirectly attacks financial values)	Loss of prestige / Corporate shame / Loss of Face/Honor	Active adjustment triggered by shame	No direct interference (corporation motivated to restore itself)
<b>Community Service Orders</b>	Corporation performs services mandated by court	Allied chemical (James River Pollution)	Representative groups/individuals from corporation	Escapes since it targets non-financial values	Adds value to community	Passive or no adjustment: sometimes public does recognize that cs is punishment	None

Table 3.3

### Citation for Table

This table provides a close summary of Fisse, B. (1985). "Sanctions Against Corporations: The Limitations of Fines and the Enterprise of Creating Alternatives" in **Corrigible Corporations and Unruly Law**, editors Brent Fisse and Peter A. French. San Antonio, TX: Trinity University Press, 137-157. Summary in tabular form of the taxonomy developed by Fisse to classify and compare forms of corporate punishment.

### Requirements of Sarbanes-Oxley (Summarized by Dyrud: 37)

- Provide increased protection for whistle-blowers
- Adhere to an established code of ethics or explain reasons for non-compliance
- Engage in "full, fair, timely and understandable disclosure"
- Maintain "honest and ethical" behavior.
- Report ethics violations promptly
- Comply with "applicable governmental laws, rules, and regulations"

- Dyurd cites: ELT, **Ethics and Code of Conduct**, n.d.; [http://www.elt-inc.com/solution/ethics\\_and\\_code\\_of\\_conduct\\_training\\_obligations.html](http://www.elt-inc.com/solution/ethics_and_code_of_conduct_training_obligations.html)

### Amended Federal Sentencing Guidelines (Taken from Dyrud: 37)

1. Establishing standards and procedures to prevent and detect criminal conduct
2. Promoting responsibility at all levels of the program, together with adequate program resources and authority for its managers
3. Exercising due diligence in hiring and assigning personnel to positions with substantial authority
4. Communicating standards and procedures, including a specific requirement for training at all levels
5. Monitoring, auditing, and non-internal guidance/reporting systems
6. Promoting and enforcing of compliance and ethical conduct
7. Taking reasonable steps to respond appropriately and prevent further misconduct in detecting a violation

### 3.2.2.2 Legal Trail Toward Corporate Moral Personhood: A Table Summary

Date	Decision	Legal Right Affirmed
1889	Minneapolis and St. L. R. Co. v. Beckwith	Right for judicial review on state legislation
1893	Noble v. Union River Logging R. Col,	Right for judicial review for rights infringement by federal legislation
1906	Hale v. Henkel	Protection "against unreasonable searches and seizures (4th)
1908	Armour Packing C. v. United States	Right to trial by jury (6th)
1922	Pennsylvania Coal Co. V. Mahon	Right to compensation for government takings
1962	Fong Foo v. United States	Right to freedom from double jeopardy (5th)
1970	Ross v. Bernhard	Right to trial by jury in civil case (7th)
1976	Virginia Pharmacy Board v. Virginia Consumer Council)	Right to free speech for purely commercial speech (1st)
1978	First National Bank of Boston v. Bellotti	Right to corporate political speech (1st)
<i>continued on next page</i>		



1986	Pacific Gas and Electric Company v. Public Utility Commn of California	Right against coerced speech (1st)
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**Table 3.4:** From Ritz, Dean. (2007) "Can Corporate Personhood Be Socially Responsible?" in eds. May, S., Cheney, G., and Roper, J., Oxford, UK: Oxford University Press: 194-195.

### 3.2.2.3

### 3.2.3 What you will do ...

#### 3.2.3.1 Exercise One: Other People's Money

Watch the shareholder's meeting in the movie, " Other People's Money." Then answer the questions below. Think generally about what the manager of a corporation should do with the money its stakeholders have invested in it.

- What is Larry the Liquidator's basic argument? What is Andrew Jorgensen's basic argument?
- What is Larry the Liquidator's conception of the nature and value of the corporation? What is Andrew Jorgensen's conception of the nature and value of the corporation?
- What is the social responsibility of a corporation according to Larry the Liquidator? What is it according to Andrew Jorgensen?
- Write a paragraph on which argument you find most persuasive, that of Larry or that of Andrew. Explain why you find it persuasive.

#### 3.2.3.2 Exercise Two: How to punish Arthur Andersen

Watch the documentary, "The Smartest Guys in the Room," paying special attention to the role played in the Enron fiasco by the accounting firm, Arthur Andersen. Then answer the following questions.

- How important should AA's former, excellent reputation have been in determining how to punish it in the role it played in the Enron case? Explain your answer.
- Enron was only the last of a series of ethics scandals that AA had fallen into. How should it have adjusted to prior scandals? (Are the Federal Sentencing Guidelines of any help here?)
- Consider that Sarbanes-Oxley was passed largely in response to Enron. Do its provisions go far enough to prevent future Enrons? Do they go too far?.
- Using the table that summarizes punishment options provided by French and Fisse, how would you construct a punishment for Arthur Andersen? Who should be targeted? Should the company's black box be left alone? Is it better to attack financial or non-financial values? Should Arthur Andersen and other corporate offenders be encouraged to reform themselves or should those reforms be designed and directed from the outside?

#### 3.2.3.3 Exercise Three: Group CID Structure

##### Corporate Internal Decision Structures

Creating Corporate Responsibility and Agency by Re-Description from CIDS

**CID Structure licenses (permits) a re-description of a human action as a corporate action if it can be directly related to all elements of the corporation's Internal Decision Structure.**

**Thus X (an action performed by an individual) can be re-described as Y (a corporate action) if...**

1. It carries out a corporate policy as outlined in the charter, mission statement, or values statement
2. Takes place in accordance with a decision recognition rule
3. Is performed as a part of carrying out a corporate role
4. And this role has a clear and designated location in the corporate flow chart

### Your Challenge

- Outline your group's Internal Decision Structure
- Create a **Group Internal Decision Structure**

### Answer these questions

- What are your group **goals**? What have you do so far to realize these?
- What **rules** help us to recognize a decision as belonging to your group? Procedure for realizing value of justice
- What group **role(s)** are you playing? Leader, spokesperson, mediator, secretary/documentor, devil's advocate, motivator, conscience.
- What is your organizational **flow-chart**? Horizontally or vertically organized?
- How are your roles coordinated and synthesized? What procedures subordinate your individual actions under group intentions?

### Review and update your preliminary group self-evaluation for Ethics of Teamwork

- **Goals:** What are your value goals for the semester?
- **Recognition rules and procedures:** What rules and procedures signal when you are acting for your group? (When are you subordinating individual interest to group interest?)
- **Roles:** Leader, spokesperson, mediator, secretary/ documentor, devil's advocate, motivator, conscience
- **Flow chart or management system:** How do you coordinate different individuals and their roles?

### Your specific assignment...Build a group internal decision-making structure

1. **Finalize your goals:** (a) Identify and test procedures that help to recognize actions of your group's members as group actions. (b) Identify and distribute the roles that individuals are playing in your group. (c) Discuss how you have organized your group to tackle assignments. How do you synthesize and subordinate individual actions and decisions into group actions and decisions?
2. **Draw a picture of your group's GID/CID Structure:** Organize it as a flow chart that describes the progression from a class assignment to the final group product.
3. **How does your group collect disseminated knowledge and skill from your individual members?**
4. **What is the greatest challenge you have faced so far?:** How did your group respond? Was it effective, successful, or satisfactory?
5. **Changes.** Have you kept your goals and procedures "in tact" as you have faced these?

### 3.2.4 What did you learn?

Peter French speculates on the possibility that a corporation could consist of nothing more than a sophisticated software program. He also holds forth the notion of corporate moral personhood (as opposed to natural personhood). Now that you have had an opportunity to study the history of and structure of the modern corporation, what do you think about the nature of corporations?

### 3.2.5 Appendix

#### 3.2.5.1 Bibliography

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[MEDIA OBJECT]<sup>9</sup>

[MEDIA OBJECT]<sup>10</sup>

#### Jeopardy for Corporations

[MEDIA OBJECT]<sup>11</sup>

#### Pirates and Corporations

[MEDIA OBJECT]<sup>12</sup>

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<sup>9</sup>This media object is a downloadable file. Please view or download it at  
<The Corporate Environment.pptx>

<sup>10</sup>This media object is a downloadable file. Please view or download it at  
<Corp\_Env-1.pptx>

<sup>11</sup>This media object is a downloadable file. Please view or download it at  
<Jeo\_Corp.pptx>

<sup>12</sup>This media object is a downloadable file. Please view or download it at  
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### 3.2.6 EAC ToolKit Project

**3.2.6.1** This module is a **WORK-IN-PROGRESS**; the author(s) may update the content as needed. Others are welcome to use this module or create a new derived module. You can **COLLABORATE** to improve this module by providing suggestions and/or feedback on your experiences with this module.

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**3.2.6.2** Funded by the National Science Foundation: "Collaborative Development of Ethics Across the Curriculum Resources and Sharing of Best Practices," NSF-SES-0551779

## 3.3 Different Approaches to Corporate Governance<sup>14</sup>

-The first link refers to a news story on Dunn's resignation from the Hewlett-Packard board. It is taken from PBS's Online NewsHour in a report delivered by Margaret Warner on September 22, 2006.

-The second link provides background information on the Hughes Aircraft case profiled just below.

### CORPORATE PROFILES:

#### Arthur Andersen

Once a highly respected company, Arthur Andersen no longer exists having gone bankrupt in the wake of the Enron disaster. Arthur Andersen provided Enron with consulting and accounting services. The consulting division was more successful but the accounting division, with its long tradition of outstanding ethical service, was the corporation's backbone. Arthur Andersen signed off on Enron's use of mark-to-market accounting which allowed Enron to project optimistic earnings from their deals and then report these as actual profits years before they would materialize (if at all). They also signed off on Enron's deceptive use of special purpose entities (SPE) to hide debt by shifting it from one fictional company to another. With Arthur Andersen's blessing, Enron created the illusion of a profitable company to keep stock value high. When investors finally saw through the illusion, stock prices plummeted. To hide their complicity, Arthur Andersen shredded incriminating documents. For federal prosecutors this was the last straw. The Justice Department indicted the once proud accounting firm convinced that this and previous ethical lapses (Sunbeam and Waste Management) showed a pattern of unabated wrongdoing. Arthur Andersen was convicted of obstructing justice on June 15, 2002 and closed its doors shortly after.

McLean and Elkind provided background for this profile on Arthur Andersen. See below for complete reference.

#### AA Timeline (Taken from Smartest Guys in the Room)

- 1913–Founded by Arthur Andersen: "think straight, talk straight"
- Stood up to Railroad company in early years. When asked to change accounting standards, Andersen said, "There is not enough money in the city of Chicago [to make AA give into client demands]"
- 1947-1963–Leonard Spacek became president of AA succeeding Arthur Andersen.
- Spacek helped motivate the formation of the Financial Accounting Standards Board. AA also served as conscience of accounting profession criticizing the profession and the SEC (Securities and Exchange Commission) for "failing to square its so-called principles with its professional responsibility to the public."
- 1963-1989–Slow erosion of standards and development of competition between accounting and consulting divisions. (Consulting division was developed to take advantage of a profitable direction in the financial industry.)

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<sup>14</sup>This content is available online at <<http://cnx.org/content/m17367/1.5/>>.

- 1989–Consultants achieve relative autonomy as "separate business unit." (McLean: 144)
- 1997–Consultants break from firm.
- 1988-1991–Arthur Andersen receives 54 million in fees from Enron
- 2000–Enron pays AA 52 million. The lion share of this was for consulting fees.
- June 15, 2002–AA found guilty of obstruction of justice. "Today's verdict is wrong....The reality here is that this verdict represents only a technical confiction." (McLean: 406)

### **Hughes Aircraft**

Howard Hughes founded this company at the beginning of the twentieth century. Hughes became a regular supplier of military hardware to the U.S. military. In the 1980's this included parts for surface to air missiles and fighter aircraft. One division specialized in computer chips designed to convert analogue information to digital for use in guidance systems and decision support systems. For example, these chips interacted with radar to help pilots of fighter aircraft avoid enemy missiles and also served as an essential component for missile guidance systems, the so-called smart bombs. Hughes had won the competitive bids for these highly profitable military projects but they had also committed themselves to tight delivery schedules with inflexible deadlines. And on top of this, the U.S. Airforce demanded that these computer chips and the systems that integrated them be rigorously tested to show that they could withstand the severe environmental stresses of battle. Hughes soon fell behind on the delivery of these computer chips causing a chain reaction of other delays both within the company and between the company and other links in the military supply chain. The environmental tests carried out by quality control under the supervision of Frank Saia had worked hard to complete the time-consuming tests and still remain on schedule with deliveries; hot parts (parts in high demand) were pulled to the front of the testing line to keep things running but soon even this wasn't enough to prevent delays and customer complaints. Giving way to these pressures, some Hughes supervisors pushed employees to pass chips without testing and even to pass chips that had failed tests. Margaret Gooderal and Ruth Ibarra resigned from the company and blew the whistle on these and other ethical failings that had become rampant in Hughes. So the corporate social responsibility question becomes how to change this culture of dishonesty and restore corporate integrity to this once innovative and leading company. (Background information on Hughes can be found at [computingcases.org](http://computingcases.org).)

### **Patricia Dunn v. Tom Perkins on Corporate Governance**

When Patricia Dunn became a "non-executive" chairman of Hewlett-Packard's board on February 7, 2005, she brought with her an outstanding reputation in corporate governance. Her top priorities were to oversee the election of a new CEO after the firing of Carly Fiorina whose management of the recent acquisition of Compaq had lost her the HP board's support. Dunn also was determined to stop leaks to the press from high-level HP officials. She viewed the latter task as a fundament component of the post-Enron corporate governance approach she felt was needed as Hewlett-Packard moved into the 21st century. But her formal take on CG was at odds with powerful board member and successful venture capitalist, Tom Perkins. In his opinion, too strict an approach to CG stood in the way of HP culture and took focus away from competing with Dell and IBM as well as staying on the cutting edge in the development of new technology. As the leaks continued, Dunn's investigation into their source (most likely a discontented HP board member) became more active and rigorous. And the disagreements between her and board member Perkins deepened; their incompatible views on CG (and other disagreements) led to Perkins's resignation from the HP board. Things became critical when Perkins received a letter from A.T. and T. informing him that an account had been established in his name (but without his knowledge or consent) using the last 4 digits of his social security number and his private phone number. During the HP-led investigation into the press leaks, a private investigation firm used an illegal technique known as "pretexting" to obtain confidential information about HP board members and news reporters including private phone and social security numbers. Perkins reported this to the SEC, and Patricia Dunn, as chairman and de facto head of the leak investigation, was indicted on four criminal charges including identity theft.

For a complete case study see Stewart (complete reference below) and Anne Lawrence and James Weber, *Business and Society: Stakeholders, Ethics, Public Policy*, 13th edition (McGraw-Hill): 501-513.

Dunn focused on incompatible views of corporate governance as one of the causes of the rift that had developed between her and Perkins's: **"Tom's model of governance may be appropriate in the**

world of venture capital, but it is outmoded and inappropriate in the world of public company governance." (Stewart, 165) She also made clear her strong views on board members leaking confidential information shared during board meetings to the press: "The most fundamental duties of a director—the duties of deliberation and candor—rely entirely upon the absolute trust that each director must have in one another's confidentiality. This is true for trivial as well as important matters, because even trivial information that finds its way from the boardroom to the press corrodes trust among directors. It is even more critical when discussions can affect stock prices....Leaking "good" information is as unacceptable as leaking "bad" information—no one can foretell how such information may advantage or disadvantage one investor relative to another." (Stewart, 156)

#### Questions

How can successful corporate governance programs be integrated into companies with free-wheeling, innovative cultures without dampening creative and imaginative initiatives? How does one make sense of the fundamental irony of this case, that a conscientious pursuit of corporate governance (attacking violations of board confidentiality) can turn into violation of corporate governance (violation of the privacy and persons of innocent board members)?

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#### Word Version of this Template

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**Figure 3.2:** This is an example of an embedded link. (Go to "Files" tab to delete this file and replace it with your own files.)

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### 3.3.1 Introduction

James B. Stewart, in a **New Yorker** article about Patricia Dunn and Hewlett-Packard, describes corporate governance as "a term that technically refers to all aspects of running a corporation but in recent years has come to emphasize issues of fairness, transparency, and accountability." This module looks at corporate governance from the macro perspective, (1) examining the management strategies adopted by a firm to ensure compliance and pursue excellence and (2) from the standpoint of government as it seeks to minimize unethical corporate behavior and to maximize the corporation's contribution to social welfare.

### 3.3.2 What you need to know ...

#### 3.3.2.1 Prisoner's Dilemma: Cooperation or Competition?

Scholarly debates on corporate governance have turned on the advocacy of different approaches, many of which can be modeled mathematically. Two approaches are based on the concepts of agency and stewardship. (See Davis et. al. in Clarke 2004) To enter into this debate, you will reenact the "Prisoner's Dilemma." Imagine that two patriotic spies, A and B, have just been captured by the enemy. Both are placed in separate interrogation cells and are being pressured to confess and provide details about their spying activities. A and B would like to coordinate their actions but the enemy has kept them apart to prevent this. Their objective is to pit A against B another in order to get the desired information. To do this, they have set forth the following systems of motivations, i.e., punishments and rewards.

#### Options for the Prisoners

- **If both A and B confess.** A and B are put in jail for five years each. The net loss in this scenario is 10. This is the least desirable alternative from the collective standpoint.
- **If one confesses and the other does not.** The confessor is released immediately while the non-confessor gets seven years in prison. This maximizes the confessor's self interest but severely punishes the patriotic, non-confessor. Net loss is 7.
- **If both do not confess.** After six months of half-hearted interrogation (most of this time is for processing the prisoners' release), both are set free for lack of evidence. While not maximizing self interest (this lies in confessing while the other remains silent) this does maximize overall welfare by producing a net loss of only 1.

**Prisoner Dilemma Options Summarized**

Prisoner A / Prisoner B	Confess	Not Confess
Confess	Both go to jail for 5 years (Net loss is 10)	A goes to jail for 7 years. B is released. (Net loss is 7)
Not Confess	B goes to jail for 7 years. A is released (Net loss is 7)	Both held for six months, then released. (Net loss is 1.0)

**Table 3.5**

### Assumptions in the Prisoner Dilemma

- Cooperation produces the best collective option and the second best individual option. This, in turn, assumes that cooperation produces more social welfare than competition.
- Free riding (competing) on the cooperation of others produces the most individual gains (for the free rider) but the second worst collective results. Society suffers losses from the harm done to the trusting, non-confessor and from the overall loss of trust caused by unpunished free-riding.
- Unlimited, pure competition (both prisoners confess) produces the worst collective results and the second worst individual results.
- Multiple iterations of the prisoner's dilemma eventually lead to cooperative behavior. But what causes this? (1) The trust that emerges as the prisoners, through repeated iterations, come to rely on one another? Or (2) the fear of "tit-for-tat" responses, i.e., that free riding on the part of one player will be punished by free riding on the part of the other in future iterations?
- Does the Prisoner's Dilemma assume that each player is a rational, self-interest maximizer? Are the players necessarily selfish in that they will seek to maximize self interest even at the expense of the other players unless rewards and punishments are imposed onto the playing situation from the outside?

The Prisoner's Dilemma is designed to model the reality of corporate governance where the directors/owners of a corporation delegate responsibility for the corporation's operations to managers who are charged with pursuing, not their own interests, but those of their directors. The problem of corporate governance is how this cooperative arrangement is institutionalized. Can managers be left alone and trusted to pursue the best interests of the corporation? This is implied in stewardship theory. Or is it necessary to design a system of controls to keep the managers from diverting the operations of the corporation toward their exclusive, self-interests? This is the approach taken in agency theory. Modeling this in terms of repeated iterations of the prisoner's dilemma, does cooperation emerge as the most reliable strategy in the long run? Or does it need to be manufactured by introducing a system of incentives such as fear of tit-for-tat strategies? The Prisoner's Dilemma models the central problems of corporate governance by asking whether cooperation naturally emerges between managers and directors or whether it needs to be manufactured through a system of punishments and rewards.

The Prisoner's dilemma is discussed throughout the literature in business ethics. For a novel and insightful discussion in the context of corporate responsibility see Peter A. French, 1995 **Corporate Ethics** from Harcourt Brace College Publishers.

### 3.3.2.2 A Short Footnote on Human Nature

- One important means for classifying different approaches to corporate governance is to reflect on the associated account of human nature. This is a very complex issue but, fortunately, political philosophy provides us with some useful insights.
- Thomas Hobbes in the **Leviathan** presents a comprehensive psychological analysis of human nature based on seventeenth century physics. The focal point of this analysis is the human individual's unlimited pursuit of desire. Without external checks (primarily the threat of punishment imposed by a powerful sovereign) the **State of Nature** (where human individuals pursue self interest without external checks) is identical to a **State of War**. This war of all against all is "**solitary, poore, nasty, brutish, and short.**"
- Hobbes's view has been characterized by C.B. Macpherson as "possessive individualism" which portrays the self as the possessor of its own attributes including the property acquired through its actions. This leads to a view called atomic individualism which is based on the claim that the self has its characteristics and determinate structure prior to and independently of any social interaction.
- Jean-Jacques Rousseau offers a brilliantly original criticism of Hobbes' conception of human nature in his Second Discourse, the **Discourse on the Origin of Inequality**. According to him, Hobbes's characterization of human nature in the State of Nature is actually a description of the human corrupted by society and the acquisition of property. "**The first person who, having enclosed a plot of land, took it into his head to say this is mine and found people simple enough to believe him, was the true founder of civil society. What crimes, wars, murders, what miseries and horrors would the human race have been spared, had someone pulled up the stakes or filled in the ditch and cried out to his fellow men: "Do not listen to this imposter."**" Rousseau argues that before the notion of property, the human's desire to preserve self was balanced by the social feeling of pity brought forth by the suffering of others. Only the unchecked pursuit of property (seen in terms of exclusive possession) would bring the motive of self-interest into conflict with natural pity.
- In opposition to Hobbes's atomic and individualistic self, a group of political philosophers, beginning with Aristotle, see the self as primarily social. Aristotle characterizes the human as a political animal (a being who naturally constructs a social organism called the "polis"). Sandel describes a "thick self" constructed out of familial, social and political content; this content is integrated into the core of the self. Werhane's description of this "social animal" is worth quoting in full: "**In that socialization process, we develop a number of interests, roles, memberships, commitments, and values such that each individual is an historical, cultural, and social product, a pluralistic bundle of overlapping spheres of foci, a thick self or selves....[T]here is no self as precritical, transcendental subject, totally ideal spectator or dispossessed subject.**"
- Thus a series of views of human nature emerge that are instrumental in forming different approaches to corporate governance. Hobbes's atomistic individualism will favor the compliance approach mandated by agency theory as directors set up external checks to self-serving managers. Rousseau's more nuanced view would require structures to hold the pursuit of self-interest in check while strengthening the equally natural impulses toward socializability and cooperation. The social conception of the self would treat the corporation as an environment where managers, as stewards, recruit employees who will quickly commit to the central corporate values and then develop supporting structures and procedures to help their colleagues find meaningful work while fulfilling social, corporate objectives.

### 3.3.2.3 Approaches to Corporate Governance

#### Summary Table



(1,1)	Description(1,2)	Theory of Human Nature(1,3)	Owner Role(1,4)	Manager Role(1,5)	Corporate Ethics Focus(1,6)
<b>Agency Theory</b> (2,1)	Managers act as agents of the corporation fulfilling the goals established by the owners / directors(2,2)	Managers are rational, but self-interested beings who must be controlled from the outside(2,3)	Owners are principals, that is, they originate the action and bear primary moral responsibility.(2,4)	Managers are agents, that is, responsible for acting in the interest of the principals who hire them. Faithful agency implies avoiding conflicts of interests and maintaining confidences.(2,5)	Compliance focus uses (1) rule-based codes, (2) systems of monitoring, and (3) punishments and rewards to motivate compliance from outside.(2,6)
<b>Stockholder Approach</b> (3,1)	Corporation is property of stockholders who dispose of it as they see fit.(3,2)	Stockholders pursue self interest. They are rational (instrumental), economic self-interest maximizers.(3,3)	Owners invest in corporation and seek a return (profit) on their investment.(3,4)	Managers are responsible for ensuring that owners get maximum return on investment.(3,5)	Stockholders direct compliance toward manager control and external conformity to laws.(3,6)
<b>Stakeholder Approach</b> (4,1)	Owners drop out of center focus. Corporation is run for the sake of its stakeholders.(4,2)	Groups have special interests but recognize the need to integrate these. Humans possess capacity for procedural reasoning.(4,3)	Owners drop to one of a group of equal stakeholders. Still advocate their financial interests but not to exclusion of other stakeholders.(4,4)	Managers are meta-stakeholders. They treat stakeholders and stakes equally and integrate these to the fullest extent possible.(4,5)	(4,6)
<i>continued on next page</i>					

<b>Stewardship Model(5,1)</b>	Managers act as stewards for absentee owners; oversee the operations of corporation and exercise care over them. Emotion (care) plays an equal role with instrumental rationality.(5,2)	Desire and self interest are balanced out by social motives such as Rousseau's pity and Aristotle's virtues.(5,3)	Owners still set cardinal objectives but they also are responsible for providing managers with a meaningful work environment.(5,4)	Managers are stewards exercising care over the property of the owners in their absence. Stewardship is based on internally generated and self-imposed motives toward care.(5,5)	Value-based: (1) identify and formulate common standards of excellence, (2) develop training programs to foster pursuit of these excellences, and (3) develop support structures to help reduce value "gaps." (5,6)
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**Table 3.6:** This table summarizes materials from Introduction: Theories of Governance (Clarke, 1 through 30) and provides a taxonomy of several different approaches to corporate governance.

### Agency Theory

1. In agency theory, the owners/directors set the central objectives of the corporation. Managers, in turn, are responsible for executing these objectives in the corporation's day-to-day operations. Corporate governance consists of designing structures and procedures to control management, i.e., to keep their actions in line with director-established objectives.
2. Managers cannot be trusted to remain faithful agents, i.e., to stay faithful to the interests and goals of the owners/directors. This presupposes a particular view of human nature. Humans are rational, egoists. They have desires and use reason to devise means to realize them. Since one desire can be checked only by another desire, this egoism is potentially without limit. Agency theory assumes that managers will divert corporate resources to pursue their own selfish ends unless checked by some system of external controls. Thus, another key element of corporate governance under agency theory is to find the most efficient systems of controls to keep manager egoism in check.
3. The owners/directors play the role of principal in agency theory. The principal originates the action and bears primary moral and legal responsibility for it. Most of the time the principal of an action is also its executor. But there are times when the principal lacks the knowledge and skill necessary for executing the objectives he or she originates. In this case, the principal contracts with an agent. The principal authorizes the agent to act on his or her behalf. This requires that the agent remain faithful to the goals and interests of the principal. See Hobbes's **Leviathan**, Chapter 16 for an important historical account of the agent-principal relation.
4. Managers are agents. Their primary responsibility is to serve as faithful executors of the goals and interests of the principals. This requires, first, that, managers are responsible for exercising their professional judgment in a competent way. Managers are also responsible for remaining faithful to the interests of their principals. To do this they must avoid conflicts of interests and maintain confidentiality (i.e., keep secrets). Agent can also range from being free (unguided by principals) to bound (tightly monitored and controlled by principals).
5. How does ethics enter into corporate governance under agency theory? Primary emphasis is placed on compliance, i.e., enforced conformity to rules that constitute minimum thresholds of acceptable behavior. Compliance approaches develop (1) rule based codes, (2) systems of monitoring to detect violations, and (3) punishments and rewards to deter non-compliance and reward compliance. Trevino and Weaver provide an empirical analysis to the goals achieved through compliance ethics: "[4] the

perception that better decisions are made because of the ethics program [5] ethical advice seeking, [6] decreased unethical behavior in the organization...[7] ethical awareness." (Weaver and Trevino, 1999: 333.)

### Stockholder Theory

1. The stockholder approach is quite similar to that set forth in agency theory. The difference is that it views the corporation as the property of its owners (stockholders) who may dispose of it as they see fit. Most of the time this involves using it to receive maximum return on investment.
2. Stockholders are oriented toward self-interest, so stockholder theory, along with agency theory, takes an egoistic/Hobbesian view of human nature. Humans are rational, self-interest maximizers. Owners should expect this from the corporation's managers and employees. They should integrate procedures and controls that channel the corporation and its members in the direction of their (owners) self-interest.
3. The owners invest in the corporation and seek a return (profit) on this investment. But this narrow role has been expanded into overseeing the operations of the corporations and its managers to ensure that the corporation is in compliance with ethical and legal standards set by the government. Just as the master, under tort law, was responsible for injury brought about by the negligence of a servant, so also are directors responsible for harm brought about by their property, the corporation.
4. Managers are role-responsible for ensuring that investors get maximum return on their investment. This includes exercising good business judgment and avoiding conflicts of interests and violations of confidences.
5. Like corporations operating within agency theory, stockholder corporations focus on compliance strategies to monitor managers and make sure they remain faithful agents. However, directors under the stockholder approach also take seriously oversight responsibility which include ensuring corporate compliance with laws such as Sarbanes-Oxley and the Federal Sentencing Guidelines.

### Stakeholder Theory

1. Owners drop out of the center of attention in this approach to become one of several, equal stakeholders. A stakeholder is any group or individual that has a vital interest, right, good, or value in play or at risk. (A gambler's stake is the money on the table in play as the roulette wheel turns. Depending on the outcome of the situation, the gambler either keeps or loses the stake.) Examples of corporate stakeholders include stockholders, employees, customers, suppliers, local community, and government. The corporation on this view exists for the sake of its stakeholders, not stockholders.
2. The stakeholder view can be closely tied to egoism if it is assumed that the different stakeholder groups exist to maximize their selfish interests. But the stakeholder approach to corporate governance goes beyond the egoistic account of human nature. The corporation (and its managers) become responsible for mediating between these different, often conflicting, stakeholder interests, always keeping in mind that all stakeholders deserve equal respect. If stakeholders have any solidarity with one another, it is because the interest set of each includes the interests of the others. (This is how Feinberg defines solidarity.) The ability to envision the interests of each stakeholder and to work toward integrating these must be built on a view of human nature that is as altruistic as egoistic. While not embracing the social view of human nature outlined above, the stakeholder view assumes that stakeholders are capable and willing to negotiate and bargain with one another. It begins, in other words, with enlightened and long term self interest.
3. The first feature of the owner role is the reduction in centrality mentioned just above. They advocate their interests in the same arena as the other stakeholders, but they also must work to make their interests compatible with the other stakeholders. This requires integrating interests when possible and drawing integrity-preserving compromises when necessary. (See Benjamin 1990).
4. Managers play an important meta-role here. They are faithful agents but of all stakeholders, not just stockholders. Thus, they become referees or (to switch metaphors) brokers between stakeholders. They

oversee the generation of expansive corporate values capable of absorbing and integrating narrower stakeholder interests.

5. Stakeholder approaches combine compliance and value-based approaches. In compliance, corporate officers define a moral and legal minimum; this consists of the minimum set of rules necessary for stakeholder coexistence. Beyond this, value-based approaches seek to create common, broader objectives, aspirations that can unite the different stakeholders in the pursuit of excellence. Stakeholder approaches need both; the compliance approach gets things started and the values-based approach sets them on the path to excellence.

### Stewardship Theory

- Managers and employees can be trusted to act as stewards or guardians of the corporation. This means that while they do not own the corporation's resources, they will safeguard these for the owners. A steward is a caretaker who looks after the owner's property and interests when the owner is absent
- This approach definitely makes use of the social approach to human nature. Humans, naturally and spontaneously, realize their innermost natures by forming social unions. The corporation, under this view, is such an organization. While taking on the characteristics of a social contract with the other approaches, especially agency theory, the corporation under the stewardship view is more of a cooperative, collaborative enterprise. Humans can act and find meaning in interests and concerns well beyond the confines of the ego. In fact, to organize the corporation around egoistic assumptions does harm to those capable of action on altruistic motives. The emphasis here is on building trust and social capital to strengthen the social potentialities of human nature.
- Owners still establish the cardinal objectives for the sake of which the corporation exists. But they are also responsible for providing managers with an environment suitable developing human potentialities of forming societies to collaborate in meaningful work.
- Managers act as stewards or caretakers; they act as if they were owners in terms of the care and concern expressed for work rather than merely executors of the interests of others. In other words, the alienation implied in agency theory (acting not out of self but for another), disappears as the managers and employees of the corporation reabsorb the agent function.
- Stewardship approaches are primarily value-based. They (1) identify and formulate common aspirations or values as standards of excellence, (2) develop training programs conducive to the pursuit of excellence, and (3) respond to values "gaps" by providing moral support.

#### 3.3.2.4 External Controls: Fining, Stock Dilution, Changing Internal Governance, Court Ordered Adverse Publicity, and Community Service

##### Classifications of Corporate Punishments from French and Fisse

	Description	Example	Target of Punishment	Deterrence Trap Avoided?	Non-financial Values Addressed?	Responsive Adjustment	Interference with Corporate Black Box
<i>continued on next page</i>							

<b>Monetary Exaction</b>	Fines	Pentagon Procurement Scandals	Harms innocent	Fails to Escape	Few or None Targeted	None	No interference
<b>Stock Dilution</b>	Dilute Stock and award to victim		Stockholders (Not necessarily guilty)	Escapes by attacking future earnings	Few or None	Limited	No interference
<b>Probation</b>	Court orders internal changes (special board appointments)	SEC Voluntary Disclosure Program	Corporation and its Members	Escapes since it mandates organizational changes	Focuses on management and subgroup values	Passive adjustment since imposed from outside	Substantial entry into and interference with corporate black box
<b>Court Ordered Adverse Publicity</b>	Court orders corporation to publicize crime	English Bread Acts (Hester Prynne shame in <b>Scarlet Letter</b> )	Targets corporate image	Escapes (although adverse publicity indirectly attacks financial values)	Loss of prestige / Corporate shame / Loss of Face/Honor	Active adjustment triggered by shame	No direct interference (corporation motivated to restore itself)
<b>Community Service Orders</b>	Corporation performs services mandated by court	Allied chemical (James River Pollution)	Representative groups/individuals from corporation	Escapes since it targets non-financial values	Adds value to community	Passive or no adjustment: sometimes public does recognize that cs is punishment	None

**Table 3.7:** This table summarizes material from Brent Fisse, "Sanctions Against Corporations: The Limitations of fines and the enterprise of Creating Alternatives." This article is found in the book, **Corrigible Corporations and Unruly Law** and provides a taxonomy of different forms of punishment for corporations. It helps rate a corporate punishment in terms of whether it targets the guilty, produces a positive change within the corporation, avoids Coffee's deterrence trap, and minimizes interference in what Stone terms the corporate black box. For full reference to book see bibliography below.

#### Requirements of Sarbanes-Oxley (From Dyrud: 37)

- Provide increased protection for whistle-blowers
- Adhere to an established code of ethics or explain reasons for non-compliance
- Engage in "full, fair, timely and understandable disclosure"
- Maintain "honest and ethical" behavior.
- Report ethics violations promptly
- Comply with "applicable governmental laws, rules, and regulations"

- Dyurd cites: ELT, **Ethics and Code of Conduct**, n.d.; [http://www.elt-inc.com/solution/ethics\\_and\\_code\\_of\\_conduct\\_training\\_obligations.html](http://www.elt-inc.com/solution/ethics_and_code_of_conduct_training_obligations.html)

### **Ammended Federal Sentencing Guidelines (Dyrud 37)**

- Establishing standards and procedures to prevent and detect criminal conduct
- Promoting responsibility at all levels of the program, together with adequate program resources and authority for its managers
- Exercising due diligence in hiring and assigning personnel to positions with substantial authority
- Communicating standards and procedures, including a specific requirement for training at all levels
- Monitoring, auditing, and non-internal guidance/reporting systems
- Promiting and enforcing of compliance and ethical conduct
- Taking reasonable steps to respond appropriately and prevent further misconduct in detecting a violation

### **3.3.3 What you will do ...**

#### **Module Activities**

- Study the Prisoner's Dilemma to help you formulate the central challenges of corporate governance.
- Study four different approaches to corporate governance, (1) agency theory, (2) the stockholder approach, (3) the stakeholder approach, and (4) stewardship theory.
- Examine corporate governance from the macro level by (1) looking at the structural changes a company can make to comply with legal and ethical standards and (2) examining the balances that government must make to control corporate behavior and yet preserve economic freedom.
- Design a corporate governance program for an actual company that you and your group choose. It should be a company to which you have open access. You will also be required to take steps to gain the consent of this company for your study.
- Reflect on how to integrate this module's macro description of corporate governance with the micro perspective presented in the module on moral ecologies and corporate governance.

#### **Corporate Governance Plans**

- A corporate code of ethics that responds to the specific ethical problems uncovered by your profile of the corporation you are studying.
- A corporate ethics training program designed to acquaint employees, owners, and managers with the company's value aspirations and compliance objectives.
- A Corporate Ethics Audit designed to identify and minimize ethical risks.
- A comprehensive ethics compliance program that responds to the requirements set forth in Sarbanes and Oxley as well as the Federal Sentencing Guidelines.
- A program in corporate excellence designed to articulate and realize the core values that define your company's identity and integrity.

### **3.3.4 What did you learn?**

This material will be added later. Students will be given an opportunity to assess different stages of this module as well as the module as a whole.

### 3.3.5 Appendix

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### Corporate Governance and Hewlett-Packard Case

[MEDIA OBJECT]<sup>15</sup>

### 3.3.6 EAC ToolKit Project

**3.3.6.1** This module is a **WORK-IN-PROGRESS**; the author(s) may update the content as needed. Others are welcome to use this module or create a new derived module. You can **COLLABORATE** to improve this module by providing suggestions and/or feedback on your experiences with this module.

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**3.3.6.2** Funded by the National Science Foundation: "Collaborative Development of Ethics Across the Curriculum Resources and Sharing of Best Practices," NSF-SES-0551779

## 3.4 Corporate Ethics Compliance Officer Report<sup>17</sup>

NOTE: This module has been designed to bring together the following modules responding to the AACSB four ethics themes, corporate leadership, ethical decision-making, corporate social responsibility, and corporate governance. The links in this module tie it directly to EAC Toolkit modules that will help in preparation of the CECO report. The include the following:

- Type or paste the content directly into the appropriate section
- Socio-Technical Systems in Professional Decision Making (m14025)
- Developing a Statement of Values (m14319)
- Pirate Code for Engineering Ethics (m13849)
- Moral Ecologies in Corporate Governance (m17353)
- Three Views of Corporate Social Responsibility (m17318)
- Different Approaches to Corporate Governance (m17367)

These modules have links of their own that will prove invaluable for this activity. An example is the Leeds School of Business at the University of Colorado; this link connects to a search engine for finding codes of ethics and corporate social responsibility programs.

The media file below provides a generic poster presentation template geared toward this assignment.

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<sup>15</sup>This media object is a downloadable file. Please view or download it at  
<CorpGov\_HP\_Case.pptx>

<sup>16</sup><http://creativecommons.org/licenses/by/2.0/>

<sup>17</sup>This content is available online at <<http://cnx.org/content/m18646/1.1/>>.



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### Template for CECO Poster Presentation

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**Figure 3.3:** This media file provides a template of the poster presentation required for ADME 3405, the course "Corporate Leadership and Social Responsibility." The different sections can be filled in by preparing PowerPoint slides, pressing control + Print Screen when in presentation viewing mode, and copy-pasting into appropriate part of poster template slide.

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### 3.4.1 Introduction

You are the CECO of your company. Being familiar with the requirements of Sarbanes-Oxley and the Federal Sentencing Guidelines, you have been charged with developing a comprehensive ethics program that includes (1) a socio-technical system study, (2) a corporate code of ethics, (3) an ethics training program for new and ongoing employees, (4) an ethics hotline or some other reporting mechanism, (5) a CSR (corporate social responsibility) challenge, and (6) recruitment and leadership strategies for implementing ethics. Your report will begin with an executive summary and end with a concluding section that discusses implementation issues and needs.

### 3.4.2 What you need to know ...

#### Sections of CECO Corporate Ethics Report

1. Executive Summary (1 page)
2. Socio-Technical System Table plus written explanation. (3-5 pages)
3. Corporate Code of Ethics that provides core values, a description of each value, and how you plan to disseminate and implement your code. (3-5)
4. CSR (Corporate Social Responsibility) Challenge
5. Description of Ethics Training Program including activities and required resources (3-5 pages)
6. Recruitment and Leadership Strategies for Implementing Ethics into your organization (3-5 pages)
7. A Conclusion that includes a summary of the report, a time frame for implementing your ethics program, and an inventory of program needs and resources (1 page)

### 3.4.3 What you will do ...

#### Executive Summary

The executive summary should be no more than one page. Expect to write this several times because it needs to be the clearest and best written section. Written for your CEO, it should provide a quick two minute summary of your ethics plan. Write it in active voice, use ordinary language, and make references throughout the summary to the sections of the report that provide more in-depth analysis of the issue at hand. In this section you will tell your reader what you are going to say in the report.

#### Socio-Technical System

- This section will provide both a table and written description to help your reader understand the socio-technical system in which your company works and which provides the ethical and social challenges to which your program will respond.
- For information on how to compose a STS table and the different frames covered refer to module m14025, Socio-Technical Systems in Professional Decision-Making. The table for Burger Man provides frames that will be most relevant to this module but there are also other STS tables adopted for use in power engineering and engineering practice in Puerto Rico.
- Your written analysis should summarize and explore in more detail the STS issues that you are addressing in your corporate ethics plan. These would include compliance issues as well as fields in which your corporation's aspirations could be realized.

### Corporate Code of Ethics

- Your job here is to write a code of ethics for your corporation emphasizing the key value aspirations and CSR challenges that you are targeting in your ethics program. Your code should include...
- The values that form your corporation's highest and central commitments.
- A description or profile of each value. See the Developing a Statement of Values module for more on this.
- How your values apply to both the corporation's stakeholders and to its key CSR challenges.
- You should be clear about the function your code is playing both within your ethics plan and within the corporate organization. Six key functions are (1) to educate, (2) to foster an ethical dialogue, (3) to discipline employees, (4) to support employees in their efforts to realize the corporation's core commitments/values, (5) to communicate these commitments/values to employees and other stakeholders, and (6) to serve as a public testament of the key ethical and value commitments that define the integrity of your organization.

### Ethics Training Program

- This section details how you educate employees on the key components of your ethics program including the core ethical and value commitments. It should also provide means for getting employee buy-in for the ethics program as well as components that help employees with special ethical challenges. It should include the following:
- How you plan to educate employees on the company's code of ethics.
- How the company's core ethical values and principles should be integrated in the company's key operations including setting policy, strategic planning and decision-making.
- How your ethics program addresses your company's moral ecology. (Is it finance-, customer-, or quality driven? How do employees develop successful moral careers and modes of ethical advocacy within each of these companies? How does your ethics training program support this process?)

### CSR Challenges

- Several companies have special challenges in CSR. For example, Coca Cola when operating in India finds itself sharing scarce water resources with local, subsistence farmers. What are their responsibilities in this context? Relate your CSR challenge to the STS description in the second section.
- Develop a response to this CSR challenge. How does this realize your company's key moral values?
- Contextualize your company's CSR response within a general CSR perspective: shareholder, stakeholder, alliance.

### Recruitment and Leadership Strategies for Implementing Ethics

- In this section you will describe how you will realize your core objectives in recruiting new employees and in developing a leadership style.

- Consider, for example, how you will integrate values into the different components of your corporation's recruiting mechanism. Justice in the job description. Communicating to new employees their job and moral responsibilities. Recruiting employees who will be able to develop successful moral careers in the moral ecology of your company.
- Recognizing and responding to ethical risks such as maintaining privacy and property.

### Conclusion

In the executive summary, you have told your reader what you are going to say in this report. The main body of the report contains what you need to say. This final section tells the reader what you have said by recapitulating and summarizing the report's high points. Include a time frame for implementing your ethics program as well as a description of the program's needs.

### 3.4.4 What did you learn?

#### Check List

- Each group will turn in this checklist, fully filled out and signed. Checking signifies that your group has completed and turned in the item checked. Failure to submit this form will cost your group 20 points
- \_\_\_\_\_ Executive Summary
- \_\_\_\_\_ Socio-Technical System Table and Written Explanation
- \_\_\_\_\_ Code of Ethics
- \_\_\_\_\_ Ethics Training Program
- \_\_\_\_\_ Corporate Social Responsibility Challenge and Response
- \_\_\_\_\_ Recruitment and Leadership Strategies for Implementing Ethics
- \_\_\_\_\_ Conclusion

#### Group Self Evaluation Requirements

- Group Self-Evaluation Form including...
- \_\_\_\_\_ a list of the goals your group set for itself
- \_\_\_\_\_ a carefully prepared, justified, and documented assessment of your group's success in reaching these goals
- \_\_\_\_\_ a careful assessment of what you did and did not learn in this activity
- \_\_\_\_\_ a discussion of obstacles you encountered and the measures your group took to overcome these
- \_\_\_\_\_ a discussion of member participation and contribution including the member contribution forms
- \_\_\_\_\_ a general discussion of what worked and what did not work for you and your group in this activity
- \_\_\_\_\_ Each member will turn in a filled out a Team Member Evaluation Form. This form can be accessed through the media file listed above. It is suggested that you do this anonymously by turning in your Team Member Evaluation Form in a sealed envelop with the rest of these materials. You are to evaluate yourself along with your teammates on the criteria mentioned in the form. Use the scale suggested in the form. Your first item here

### Team Member Evaluation Form

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**Figure 3.4:** This Team Member Evaluation Form must be filled out by each team member. Evaluate yourself and each member in terms of the criteria. It is preferable if you do this anonymously.

### Group Pledge

- I certify that these materials have been prepared by those who have signed below, and no one else. I certify that the above items have been checked and that those items with check marks indicate materials that we have turned in. I also certify that we have not plagiarized any material but have given due acknowledgment to all sources used. All who sign below and whose names are included on the title page of this report have participated fully in the preparation of this project and are equally and fully responsible for its results.
- Member signature here \_\_\_\_\_
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### 3.4.5 Appendix

#### 3.4.6 EAC ToolKit Project

**3.4.6.1 This module is a WORK-IN-PROGRESS; the author(s) may update the content as needed. Others are welcome to use this module or create a new derived module. You can COLLABORATE to improve this module by providing suggestions and/or feedback on your experiences with this module.**

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### 3.4.6.2 Funded by the National Science Foundation: "Collaborative Development of Ethics Across the Curriculum Resources and Sharing of Best Practices," NSF-SES-0551779

## 3.5 Three Views of CSR (Corporate Social Responsibility)<sup>19</sup>

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### Word Version of this Template

This media object is a downloadable file. Please view or download it at  
< EAC TK STD TEMPLATE.doc>

**Figure 3.5:** This is an example of an embedded link. (Go to "Files" tab to delete this file and replace it with your own files.)

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- The first two links to this module are to sample corporate social responsibility statements put out by McDonalds and Starbucks. These will help you to benchmark your own efforts both in the fictional Burger Man case and in your efforts to develop CSR reports for real companies.
- The other link is a story from reporter, Paul Solomon, that reports on the annual Business for Social Responsibility conference. This story, first broadcast on December 23, 2004 reports on outstanding and successful efforts on CSR. Its title is "Good Business Deeds" and it was accessed for this module on August 17, 2008 at the following URL:  
[http://www.pbs.org/newshour/bb/business/july-dec04/corporate\\_12-23.html](http://www.pbs.org/newshour/bb/business/july-dec04/corporate_12-23.html)

### 3.5.1 Introduction

This module will introduce you to the theme of corporate social responsibility. Three representative cases will help to pose the central problems and basic issues of CSR. Then you will work on developing a social contract between the business corporation and society to articulate the interests, goods, and rights at stake in CSR. Three different approaches dominate this field: the shareholder approach set forth by Milton Friedman, the stakeholder approach articulated by Evan and Freeman, and Patricia Werhane's alliance model. Finally, you will work on developing a CSR program for the hypothetical corporation, Burger Man. This will be based on a shareholder meeting that consists of six or seven stakeholder presentations. (You will play the role of one of the stakeholders.) Your CSR program will address and integrate the needs and interests of the Burger Man stakeholders.

#### Three CSR Challenges

Patricia Werhane discusses how six corporate organizations deal with three CSR challenges: (1) carrying out oil drilling in a corrupt political environment, (2) working with suppliers who impose sweatshop conditions on employees, and (3) addressing the HIV/AIDS challenge in Africa. Each challenge elicits two corporate responses, one from a shareholder or stakeholder perspective, the other from an alliance perspective. Shell Oil's response to political corruption in Nigeria will be compared with Exxon/Mobile's response in Chad and Cameroon. Nike's answer to public criticism of the employment practices of its third world suppliers

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<sup>19</sup>This content is available online at <<http://cnx.org/content/m17318/1.6/>>.

will be compared to Wal Mart's reputedly heavy-handed treatment of its employees and suppliers. Finally, while the pharmaceutical industry has developed an expensive drug cocktail to treat HIV/AIDS in patients in developed nations, the NGO (Non Government Organization), the Female Health Company, has designed a program to distribute of condoms to prevent infection in the first place. These paired corporate responses to CSR challenges are not provided in support of the position that the superiority of the alliance approach is a "no-brainer." Instead, they provide you with a menu of CSR strategies that you will evaluate using the CSR framework you will develop out of the social contract that between business and society. These three CSR challenges come from Werhane (2007)

### Operating in a Corrupt Environment

- A big challenge facing multinational corporations is how they should respond to local corruption. Both Shell Oil and Exxon/Mobile sought to carry out drilling operations at sites plagued by corrupt local and national governments.
- Shell took a shareholder approach arguing that their primary CSR was to their stockholders and that involvement in corrupt local politics would be tantamount to paternalism.
- Exxon/Mobile, on the other hand, adopted a more active approach. They took expensive measures to mitigate the environmental impact of their operations. They also hired and provided technical training to local residents. Finally, they worked to ensure that the revenues they introduced into the local communities were not lost through political and business corruption.
- What are the CSRs of multinational corporations that operate in corrupt local environments? Are these fashioned around the minimal obligation of creating no additional harm? Or should they expand to preventing harm (if possible) that others are about to inflict? To move even further up the ladder of responsibility, do multinational corporations have positive, supererogatory responsibilities that consist of adding value to the communities they do business in?

### Vicarious CSR: Responding to Supplier Sweatshops

- Vicarious responsibility occurs when one agent accepts responsibility for actions executed by another. For example, under agency theory, the principal bears overall moral and legal responsibility for the action since he or she has originated it. Although the agent executes the action, he or she is responsibility only for executing the action faithfully and treating the principal's interests as his or her own.
- In this context, can we hold corporations such as Nike and Wal Mart vicariously responsible for the morally questionable actions of their suppliers? If so, then under what conditions?
- Nike fell under siege when the press found out that its suppliers based in the third world imposed harsh, sweatshop conditions on their employees, including child labor. Nike could have argued that this was beyond the scope of their responsibility. How could **they** be held **vicariously responsible** for the actions of another? Their job was to produce shoes at the lowest possible price to deliver an affordable quality product to customers and to maximize shareholder value. But Nike went beyond this minimal responsibility to carefully vet suppliers and to work with them to improve working conditions. Thus, they expanded the scope of their CSR to include improving working conditions for, not only their employees, but also the employees of their suppliers.
- Wal Mart has been identified by Collins and Porras (Built to Last) as a highly successful and visionary company. It has certainly led the way in providing consumers with high quality products at surprisingly low prices. But the savings it provides to customers and the high returns it guarantees investors are purchased at a high price. Wal Mart prevents its employees from joining unions which has lowered their wages and restricted their health and retirement benefits. Wal Mart employees are also expected to work long hours for the company. While it provides cheap, high quality products to its customers, Wal Mart pushes suppliers narrowing their profit margin and placing upon them the responsibility of supplying product just-in-time to meet demand.
- In its earlier days, Wal Mart targeted small towns. Their competitive practices forced less aggressive, local business to leave. While they have brought considerable benefits to these communities, they have also seriously changed established business and social structures.

- Finally, Wal Mart, like Nike initially, exercises minimal supervision over their suppliers many of whom are overseas. Wal Mart suppliers also have been known to impose harsh working conditions on their employees.

### Some CSR Questions for Nike and Wal Mart

1. From a broader CSR perspective, is Nike maximizing stakeholder value? Is it redistributing burdens and costs from customers and investors to its suppliers and their employees? Does CSR allow this redistribution of the corporate wealth from the shareholders to other stakeholders? (Think about Friedman's arguments here.)
2. If it is necessary to trade off stakeholder stakes as both Wal Mart and Nike do, which trade off is more just? Nike's distribution of its wealth from its stockholders to the needy manifested in its efforts to improve the working conditions and income of the employees of its suppliers? Or Wal Mart's distribution of benefits to its stockholders and its comparatively prosperous customers?
3. Which model would Friedman prefer under his version of the shareholder view of CSR? Explain and evaluate.
4. Which model would be preferable by Evan and Freeman under the stakeholder view? Who are Nike and Wal Mart's stakeholders? What are their stakes? How should the wealth produced by these two corporations be distributed among their stakeholders?
5. Werhane, in her alliance model, argues for the importance of a CSR model that decentralizes the corporation and facilitates morally imaginative solutions. Why does she argue that Nike's program is better than Wal Mart's from this perspective? What could Wal Mart do to improve its CSR on the alliance view?

### Facing the AIDS Challenge in Africa

- The widespread and devastating effects of the AIDS epidemic in Africa are well known. But what are the responsibilities of corporations in the face of this terrible CSR challenge? Should they do business as usual and allow others who are perhaps more qualified respond to this pervasive social problem? Or should they recognize a broader responsibility to channel their wealth, knowledge and expertise toward mitigating this social problem?
- Pharmaceutical corporations invest huge amounts of money in research and development. The market place is a good place for both encouraging this necessary risk and for distributing it among several groups and interests. Developing new medicines requires costly research. So Friedman's question is highly pertinent here: does imposing CSR on a corporation do more harm than good because it interferes with the delicate mechanism of the market?
- At any point along the way, the product may not meet expectations, a competitor may beat the pharmaceutical to the market, the regulatory process may delay or even prevent sale, and so on. The rewards from patenting a successful medicine are astoundingly high. But heavy, possibly devastating losses are also possible. Adding CSR to the mixture may be the formula for corporate disaster.
- Pharmaceutical corporations also face daunting challenges from regulatory agencies such as the Food and Drug Administration. New products must be exhaustively and painstakingly tested to avoid problems that have arisen in the past such as the Dalkon Shield and Thalidomide. Again, considerable effort must be expended in exploring the middle and long term consequences accompanying product and drug use, and all of this before the product can be marketed and profits made. Government regulation also raises another problem. Is government prodding necessary to force corporations into a proper CSR posture? Or should corporations be allowed to develop voluntarily their own CSR responses?
- In the case at hand, pharmaceutical companies have invested considerable resources to carry out research into medicines that control HIV infection and prevent it from developing into full-blown AIDS. But these treatments are very expensive and bring with them considerable side effects. An anti-AIDS chemical cocktail can cost patients in developed nations between 15 and 20 thousand dollars per patient per year. This is far beyond the financial resources available to a typical HIV/AIDS

patient in Africa. Some NGOs and critics of the pharmaceutical industry accuse the latter of gouging victims and drawing excess profits from the misfortune of others. A spokesperson for "Doctors Without Borders," for example, claims that the AIDS treatment "cocktail" that costs U.S. patients 15 to 20 thousand dollars could be made available to Africans at less than 300 dollars per patient per year. Pharmaceuticals, according to their critics, need to rethink their CSR, cease operating as for-profit businesses, and make these drugs available to third world sufferers at cost.

- What are the CSRs of multinational pharmaceutical corporations for making HIV/AIDS drugs available to victims in the poverty-stricken nations of Africa? Are they responsible for charging what the market will bear? Assuming they have the right to recoup their heavy investment in research, should governments, recognizing the necessity of compensating drug companies for their research, buy these drugs and redistribute them at little or no cost to those who can't afford them? Or should the pharmaceuticals charge more to those who can pay and less to those who cannot? (This redistributes the burden of cost from the haves to the have nots.)
- Many NGOs have taken the stance that their responsibility lies in pressuring drug companies to do the right thing and donate medicines to patients who cannot pay. This is their corporate social responsibility, and the pharmaceutical industry certainly has enough money to do this.
- But others have tried to reframe this issue using moral imagination. Treating individuals for HIV infection once they have contracted it is expensive no matter how you look at it. But, redefining the problem, can moderate and affordable measures be taken to prevent the spread of the disease?
- This is the imaginative approach taken by the Female Health Company which has initiated a widespread effort to distribute condoms to those at risk for contracting AIDS.
- How does the approach of the FHO exemplify Werhane's alliance model? How should pharmaceutical companies respond to this kind of initiative? Is it necessary to frame the relation between the pharmaceutical industry and NGOs as an adversarial relation or should broader alliances be formed that coordinate the efforts of these groups?

### 3.5.2 The Social Contract between Business and Society

Every contract is built on the basis of three conditions (1) free and informed consent, (2) a quid pro quo, and (3) the rational self interest of the contracting parties.

- **Free and Informed Consent:** No contract is legitimate that is based on force, fraud or deception. The parties must enter into this agreement freely and without compulsion. They must understand the terms of the contract which excludes deception and fraud. In short, the contract presupposes the uncoerced participation of all the parties. To enter into the contract they must understand all the key issues and consent to the constitutive exchange.
- **Quid Pro Quo:** Quid Pro Quo literally means something in exchange for something. Every contract is built around a mutually beneficial exchange. I give you my baseball cap in exchange your ice cream. Most exchanges are simultaneous. But some are what Hobbes calls "covenants." Here I give you my baseball cap with the understanding that later this afternoon you will pass by your refrigerator, get my ice cream cone and give it to me. I give you my part now and trust you to carry out your part later.
- **Rational Self Interest:** Each of us should know the value of the items to be exchanged. (That is one reason why a contract requires free and informed consent.) This knowledge is determined, in part, by the preference schedules that we have developed as rationally self-interested beings. So a legitimate contract assumes that I have interests, that I am capable of determining what promotes these interests, and that I am rational enough to determine means to promote them and avoid other means that interfere with them.

#### Social Contracts

A social contract differs from other contracts because it is hypothetical. Business and Society have never sat down in a room and hammered out a contract outlining their relation. But this hypothetical contract



provides a good means of making sense out of the relation that has gradually evolved between society and business. Forget for a moment the historical details of the relation between business and society. If this relation is summarized as a contract, what does society give to business? What does business give to society? Do these two institutions trust one another or do they each adopt means to monitor and control the other? What are these means? Treating the relation between business and society as a contract between two mutually consenting agents or actors does get some of the facts wrong. But it provides a useful "heuristic" device, i.e., a framework that will help us to summarize, structure, and, in a work, make sense of the relation between the two. Moving from the terms of this "contract" you will be able to develop a framework for understanding the social responsibilities of business corporations. This, in turn, will help you to understand the CSR challenges presented above and the CSRs of the fictional but realistic Burger Man corporation.

**Exercise 1: In small groups, spell out the social contract between society and business.**

- How can the absence of force, deception, and fraud be guaranteed in this contract? How should each side hold the other accountable? (This is especially the case where one side delivers at one time and the other side is trusted to deliver later.)
- What benefits can business bring to society? How can society benefit business. Develop a table with one column listing what business has to contribute to society and the other what society has to contribute to business. This table is the heart of your social contract.
- Assume that society and business are rationally self interested. How does this effect the formulation of the goods of the exchange? How does this enforce the terms of the contract? Are these self interests divergent? (Then each side must monitor the other to prevent the corruption of the contract.) Are these interests convergent? (Then the contract consists largely in building social capital and trust between the contracting parties.)
- Donaldson, 1993 uses social contract theory to account for the rights and duties of multinational corporations

**Exercise 2: CSR and STS**

Choose one of the CSR challenges above and construct a socio-technical table around it

**STS Table**

<b>Component / Em- bedded Value</b>	<b>Technology (Hard- ware)</b>	<b>Technology (Soft- ware)</b>	<b>Physical Sur- round- ings</b>	<b>Stakeholder</b>	<b>Procedures</b>	<b>Laws</b>	<b>Information and Infor- mation Systems</b>
<b>Justice</b>							
<b>Free Speech</b>							
<b>Property</b>							
<b>Privacy</b>							
<b>Safety</b>							

**Table 3.8**

### 3.5.3 Three CSR Frameworks

#### Shareholder View

From Milton Friedman, "The Social Responsibility of Business is to Increase Its Profits." "But the doctrine of "social responsibility" taken seriously would extend the scope of the political mechanism to every human

activity. It does not differ in philosophy from the most explicitly collectivist doctrine. It differs only by professing to believe that collectivist ends can be attained without collectivist means. That is why, in my book **Capitalism and Freedom**, I have called it a "fundamentally subversive doctrine" in a free society, and have said that in such a society, "there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud." 1970 by New York Times Company

### Stakeholder View

- A stakeholder must be distinguished from a stockholder. The latter owns a share of the corporation. On the other hand, a stakeholder is any group or individual that has a vital interest in the doings of the corporation. Hence the stockholder is a stakeholder of the corporation whose vital interest at play is the share owned of the corporation and the money invested in this share.
- There are several other stakeholders of the corporation. These include (1) employees, (2) customers, (3) suppliers, (4) local community, (4) surrounding governments, (5) the surrounding human and natural environment, and (6) the corporation's managers. (In some situations there are other stakeholders such as competitors.)
- Stakeholder theory requires that the corporation recognize and respect the vital interests of each of its surrounding stakeholders. This frequently issues in proposing stakeholder rights and assigning to others correlative duties to recognize and respect these rights.
- Stakeholder theory also requires that the corporation integrate interests where possible, mediate or broker conflicts between interests, and only trade off competing interests when absolutely necessary and when more conciliatory efforts have already been made and have failed.
- See Evan and Freeman 1988

### Werhane's Alliance Approach

- Werhane's alliance approach is similar to the stakeholder approach in that it recognizes several groups that surround the corporation and have vital interests that depend on the doings of the corporation. These surrounding groups are more or less the same as those in the stakeholder approach: owners, managers, employees, customers, suppliers, local communities, governments, the environment, etc.
- But Werhane makes two significant departures from the stakeholder approach. First, she uses moral imagination to distance the corporation from the problem solving process; the lens of problem solving refocuses on each of the other stakeholders. Whereas for stakeholder theory the corporation is the center of analysis and is visualized as surrounded by its stakeholders, the alliance approach decentralizes the corporation and alternatively visualizes each stakeholder as the center for the purpose of framing problems and generating solutions.
- Second, the alliance approach sees the corporation as a part of a system of interrelated and interdependent parts. Hence, each problem situation presents a system formed of the corporation, owners, managers, employees, suppliers, customers, local communities, and governments. Problems emerge from value conflicts within and between the constituent parts of the system. They are solved through the cooperation of the different constituencies of the alliance.
- While this approach does not lend itself to algorithms or rules, it does promise solutions by highlighting and facilitating moral imagination both in the framing of problems (problems are posed in terms of framings from multiple perspectives) and in terms of the generation of solutions (multiple problem-framings help us to visualize new solution horizons).
- See Werhane, 2007 and 2008.

## 3.5.4 What you will do ...

### Module Activities

1. Examine the CSR challenges presented above. Compare the two responses to each challenge.
2. Learn about three models of corporate social responsibility.
3. Develop a fully articulated social contract between business and society. Use this contract to understand the basic CSRs of business corporations.
4. Prepare a Social Impact Analysis on the fictional firm, Burger Man.
5. Prepare for and participate in a board meeting for Burger Man to examine ethically its practices and develop for it a viable and sustainable program of corporate social responsibility. This requires that you give a short presentation on the interests of a particular Burger Man stakeholder
6. Develop a full blown CSR program for Burger Man that carries out the responsibilities of this company to its stakeholders.

### 3.5.5 Burger Man Stakeholders

The author became aware of the Burger Man exercise when participating in an Ag-Sat broadcast course in Agricultural Ethics in 1992. The exercise was created by the leader of the course, Dr. Paul Thompson.

#### **Burger Man Profile**

Burger Man is a franchise that began by selling the fast food staples of hamburgers, french fries, and milk shakes. As the company has matured and faced other competitors in this market niche, it has, of course, developed a more sophisticated set of products and services. But it has also been challenged on various issues related to corporate social responsibility. Groups representing the rights and interests of animals have criticized the agribusiness methods used by its suppliers. Recently, public interest groups have blamed Burger Man and its competitors for encouraging unhealthy dietary habits among its customers and the public in general. Shareholders, of course, are concerned that the company continue to be profitable and provide them with a good return on investment. Governmental regulatory agencies such as the EPA (Environmental Protection Agency) and OSHA (Occupational Safety and Health Administration) wish to hold Burger Man accountable for conforming to its regulations. In short there are several stakeholder groups surrounding this corporation, each vying for its particular interest. In this exercise, you will play two roles. First you will be assigned a role as one of Burger Man's stakeholders and make a presentation of your group's interest in mock shareholder meeting that will be held in class. Then you will switch to the role of Burger Man management. Here your assignment will be to articulate the different stakeholder interests and integrate them into a coherent CSR plan for your company.

#### **Burger Man Customers**

- Burger Man customers are the consumers who go to its restaurant and enjoy its food services. In preparing your board meeting presentation you need to explore Burger Man's social responsibilities to its customers.
- Are these reducible to providing them an enjoyable product at a reasonable price? Or does BM's social responsibilities go beyond this?
- Burger Man has extensive interactions with its suppliers that include meat packing corporations and agri-business concerns. How should Burger Man choose its suppliers? How carefully should it monitor their activities. To what extent is Burger Man responsible for the untoward activities of these groups?
- How responsible is Burger Man for shaping the dietary habits of its customers? Does it bear responsibility for the health problems that its public develops from bad dietary practices?

#### **Burger Man Shareholders**

- Burger Man shareholders are investors who have purchased shares of Burger Man's publicly traded stock.
- What are their stakes?
- What are their responsibilities? For example, how closely should shareholders monitor the actions of their agents, i.e., Burger Man's managers? Are shareholders responsible for holding Burger Man to

certain standards of corporate social responsibility? What are these standards and how do they stand in relation to the different models of social responsibility?

- Prepare your presentation around these issues. Address shareholder interests (stakes) and responsibilities.

### **Burger Man Managers**

- Burger Man managers are the agents of the shareholders/owners responsible for overseeing the day-to-day operations of the corporation.
- What are the manager's stakes? What role do they play in the different models of social responsibility? (Classical, stakeholder, and alliance views?)
- Agency theory argues that the primary corporate governance problem is overseeing and controlling the actions of managers. How closely should shareholders and their board of directors oversee corporate managers? Are managers self-interested agents or stewards of the corporation?
- What are managerial responsibilities vis a vis corporate social responsibility? Should they uncover illegal actions? Should they implement an audit process that assess the corporation's success in carrying out its social responsibilities? Should these responsibilities go beyond the legal minimum?
- Should managers go beyond the legal minimum in monitoring and carrying out corporate social responsibilities?
- Are corporate managers responsible only to shareholders or do their responsibilities extend to other stakeholders? If the latter, how do they balance conflicting stakes?
- Structure your presentation around outlining managerial stakes and roles. Choose a model of corporate social responsibility and argue for its appropriateness to Burger Man.

### **Government Regulatory Agencies: OSHA and EPA**

- OSHA is in charge of regulating workplace safety. EPA is in charge of setting, monitoring, and enforcing standards concerning the environment. (For example, they establish acceptable air emission and water discharge standards.)
- What are the stakes of government regulatory agencies? What is their role in the context of the Burger Man corporation?
- Write your position paper outlining your group's stakes and roles in the context of establishing Burger Man's corporate social responsibility procedures. What would you recommend? How should you back up or enforce these recommendations?

### **Animal Rights Activists**

- Burger Man serves hamburgers, chicken sandwiches, and dairy products. These involve animals. As animal rights activists, you are concerned with steering Burger Man and its suppliers toward morally acceptable treatment of animals.
- What are your group's stakes in this board meeting? What kind of role should you play?
- State your policy on animal treatment? Is it a position of animal welfare based on utilitarian considerations? (Peter Singer provides such a position.) Is it a deontological position based on the assertion of animal rights that impose correlative duties on humans? (Tom Regan takes this position.) Or should you base your arguments on anthropocentric issues such as human health?
- Write a position paper that responds to these questions for presentation in the Burger Man board meeting.

### **Town X Committee for Economic Development**

- Your town, Town X, has three Burger Man franchises. Representatives from the town council are participating in the board meeting in order to ensure that Burger Man's policies on corporate social responsibility enhance the town's economic welfare and development.
- What are your stakes? What are your roles and responsibilities?

- What kind of services and products do you provide for Burger Man? What benefits do your community draw from Burger Man? How can Burger Man activities and policies promote or demote your town's interests and stakes?
- Develop a position paper for the board meeting that addresses these issues? Pay special attention to the goods and risks that your town exchanges with Burger Man.

Insert paragraph text here.

### Exercises in CSR

- Participate in the Burger Man Stakeholder Meeting
- Take your assigned stakeholder group and prepare a short presentation (five minutes maximum) on your stakeholder's interests, rights, needs, and vulnerabilities.
- Listen to the stakeholder presentations from the other groups. Try to avoid a competitive stance. Instead, look for commonalities and shared interests. You may want to form coalitions with one or more of the other groups.
- Switch from the stakeholder role to that of Burger Man management. You are responsible for developing a comprehensive corporate social responsibility program for Burger Man. Your job is to integrate the concerns expressed by the stakeholders in their presentation and form your plan around this integration.
- Try to resolve conflicts. If you cannot and are forced to prioritize, then you still must find a way of recognizing and responding to each legitimate stakeholder stake. You may want to refer to the "Ethics of Team Work" module (m13760) to look for time-tested methods for dealing with difficult to reconcile stake. These include setting quotas, negotiating interests, expanding the pie, nonspecific compensation, logrolling, cost-cutting and bridging. You should be able to establish beyond a shadow of a doubt that you have made every attempt to recognize and integrate every legitimate stakeholder stake.

### 3.5.6 What did you learn?

This module and two others (A Short History of the Corporation and Corporate Governance) are designed to help you understand the corporate context of business. In this section, you should reflect on three questions: (1) What have you learned about the social responsibilities of corporations? (2) What still perplexes you about the social responsibilities of corporations. (3) Do you find one model of CSR better than the others? (4) Can these models of CSR be combined in any way?

### 3.5.7 Appendix

#### Rubric for Partial Exam on CSR

This media object is a downloadable file. Please view or download it at  
<PE\_Rubric\_CLSR\_F08.docx>

**Figure 3.6:** This file contains the rubric to be used on the partial exam for Corporate Leadership and Social Responsibility, ADMI 3405, Fall 2008"

### Corporate Social Responsibility Frameworks: Seminal Papers

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### 3.5.8 EAC ToolKit Project

**3.5.8.1 This module is a WORK-IN-PROGRESS; the author(s) may update the content as needed. Others are welcome to use this module or create a new derived module. You can COLLABORATE to improve this module by providing suggestions and/or feedback on your experiences with this module.**

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### 3.5.8.2 Funded by the National Science Foundation: "Collaborative Development of Ethics Across the Curriculum Resources and Sharing of Best Practices," NSF-SES-0551779

## 3.6 Moral Ecologies in Corporate Governance<sup>21</sup>

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### Word Version of this Template

This media object is a downloadable file. Please view or download it at  
< EAC TK STD TEMPLATE.doc>

**Figure 3.7:** This is an example of an embedded link. (Go to "Files" tab to delete this file and replace it with your own files.)

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### 3.6.1 Thought Experiment: Plato–The Ring of Gyges

#### The Ring of Gyges (Plato's Republic II, S359)

Gyges a poor shepherd is tending his flock when there is an earthquake. A huge crack opens in the earth to expose a sarcophagus. Gyges reaches in and takes the ring that draws his attention. Later, when he is talking among friends, he notices that he becomes invisible when he turns the ring in toward himself. He tries this out a few times and then forms his plans. Invisible, he gains entry to the king's castle and rapes the queen. Drawing her into his nefarious plan, they kill the king and take over the kingdom. Gyges marries the queen and becomes ruler of a large and wealthy kingdom. Somehow it doesn't seem fit to say that he lives "happily ever after." But, since he is never caught, it doesn't follow that his ill-gotten gain has made him miserable.

Before finding his ring, Gyges was, at least outwardly, a well-behaved, just citizen. But the combination of vast power and no accountability drew Gyges over to the dark side. Does the human character, like that of Gyges, dissolve in the face of temptation and lack of accountability? Is the threat of punishment necessary to keep individuals moral? Is visibility and the threat of punishment all that stands between an individual and a life of injustice?

#### 3.6.1.1 Thought Experiment: The Milgram Experiments

From 1960 until 1963, Stanley Milgram, a social psychologist, carried out a series of experiments on around 1000 subjects. Each experiment brought together three participants, a subject (or teacher), a learner, and an experimenter. In the initial orientation, the experimenter told the subject/teacher and the learner that they were about to participate in an experiment designed to measure the influence of punishment (in the form of electrical shocks) on learning. The learner was presented with information. The teacher then asked questions based on this information. If the learner answered correctly, then they went on to the next question. If the learner answered incorrectly, then he was given an electrical shock by the teacher. With each missed question the intensity of the shock increased. The experiment continued until all the questions were asked and answered.

However, these instructions constituted a deception brought upon the teacher/subject by the secret collaboration of the experimenter and the learner. The real purpose of the experiment was to determine how far the teacher/subject would go in turning against his or her moral views at the urging of an external authority. The learner feigned pain and suffering because there was no actual electrical shock. The learner also deliberately missed most of the questions in order to force the teacher to progress to higher and what appeared to be life-threatening levels of shock. While teachers were not physically forced to continue the

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<sup>21</sup>This content is available online at <<http://cnx.org/content/m17353/1.8/>>.

experiment over the feigned protests of the learners, whenever they tried to stop it, they were told by the experimenter that they had to continue to the end.

Before the Milgram experiments were carried out, a group of psychologists were asked to predict how many teachers/subjects would go all the way to the end and give the learner what they thought were life-threatening and highly painful shocks. The consensus was that most would stop the experiment early on when the learner first began to protest. But the actual results went contrary to these predictions. Over 60 percent of the teachers went all the way and gave the learner the maximum shock. You can read more about these experiments and how they have been interpreted by reading Milgram 1974 and Flanagan 1991. You Tube has several video vignettes on the Milgram Experiments. Simply type "Milgram Experiments" in the search window and browse the results.

Milgram argued that his research demonstrated a propensity to delegate moral authority for one's immoral actions to those in positions of power and authority. Others have pushed these results further to assert situationalism, i.e., the claim that forces arising in situations can overpower and annul the expression in action of self, character, and character traits. In addition to what Milgram claims, opponents of virtue theory would claim that Milgram's experiments offer conclusive proof that moral exemplars, i.e., individuals who exhibit sustained moral careers through the strength of their characters and moral virtues, do not exist and cannot exist (See Gilbert Harmon). And setting forth these so-called moral exemplars as models imposes on students moral standards that are not minimally, psychologically realistic.

### 3.6.1.2 Thought Experiment: Zimbardo and the Stanford Prison Experiment

In many ways, Zimbardo's experiments appear equally damaging to virtue and moral exemplar theory. Students were recruited to take part in a prison experiment. After being carefully screened for any abnormal psychological traits, they were randomly assigned the roles of prisoner guard and prisoner. The prisoners were arrested at their homes and taken to the psychology building at Stanford University whose basement had been made over to resemble a prison. The experiment was designed to last for two weeks but was halted mid-way because of its harmful impacts on the subjects. The guards abused the prisoners, physically and psychologically; individuals who behaved normally before the experiment, became sadistic when playing through the prison guard role. The prisoners were traumatized by their experience and many experienced breakdowns; all testified to how they forgot who they were before the experiment began; their normal identities were absorbed and cancelled by their new identities stemming from the role "prisoner" and from the dehumanizing treatment they received from the guards.

Just as the Milgram experiments have been used to demonstrate the weakness of character in the face of situation-based pressures, Zimbardo's experiments have been used to demonstrate the fragility of moral and personal identity. Powerful roles overwhelm moral integrity and conscience; individuals give way to the corrupting demands of immoral roles.

Nevertheless, Milgram and Zimbardo both pull up well short of this extreme position. Milgram talks of a former subject who used the knowledge he gained about himself as a subject in the obedience to authority experiment to strengthen his character and successfully take a leadership role in the protest movement against the Vietnam war. And Milgram also profiles two individuals who offered firm and resolute disobedience when asked to continue the experiment over the objections of the victim/learner. When the experimenter prompted Jan Rensaleer that he "had no other choice [but to continue]," he replied, "I came here on my own free will." Gretchen Brandt, a woman who spent her youth in Nazi Germany, responded similarly. To the same prompt she replied, "I think we are here on our own free will." During the post-experiment debriefing, both emphasized not giving over responsibility for their actions to others and acknowledged that their experience with the Nazis (Rensaleer lived in the Netherlands during the Nazi occupation) may have helped them in carrying out their acts of disobedience. In reflecting on her reason for disobedience, Brandt also added, "Perhaps we have seen too much pain."

Zimbardo also thinks that individuals can develop strategies, skills, and practices to keep hold of their moral selves in the face of strong situation and role-based pressures. These consist of exercises to gain distance and perspective on the situation and to recall oneself to one's character and personality. Here are some examples from *The Lucifer Effect* of his "Ten-Step Program:"453-454



- “I am responsible.”
- “I will assert my unique identity.”
- “I respect just authority but rebel against unjust authority.”our second item here
- “I will not sacrifice personal or civic freedoms for the illusion of security.”

### From Gyges, Milgram, and Zimbardo to Moral Ecology

These thought experiments raise the question of the influence of environment on character and on individual agency. As we have repeatedly seen this semester, the environments of the organization (ethical, technological, organizational, and economic) all constrain agency in certain ways and enable or empower it in others. This module is designed to help you identify how the organizational environment creates a moral ecology that constrains and enables your ability to act. (You can be pressured to act against conscience as the Milgram experiments show. And you can lose your sense of self in a particularly power role and role-supportive environment.) It is also designed to suggest strategies that increase the strength of moral character by identifying different organizational environments (finance-, customer-, and quality-driven corporations) and calling upon you to develop special skills that help you to keep moral and personal commitments in tact.

### 3.6.2 Introduction

Corporate governance is defined in the Blackwell Encyclopedic Dictionary of Business Ethics as "concerned with those decisions made by the senior executives of a firm and the impacts of their decisions on various stakeholder groups." (EBE 147) This module turns corporate governance inside-out and looks at it from the perspective of the governed, that is, from the directors, managers, and employees subject to the structures and strategies of corporate governance. Corporate environments function as "moral ecologies," that is, "the somewhat stable, but constantly negotiated set of values, practices, and influences within societies, organizations, professions, and work groups." (Huff et. al., 2008) The thrust of this module is to help you begin to strategize on how to develop sustainable moral careers within different moral ecologies. You will study different kinds of moral ecologies using a taxonomy developed from the research of Michael Davis in **Thinking Like an Engineer** and Robert Jackall in **Moral Mazes**. Huff (2008) provides some generic strategies for individuals to pursue within in these organizational environments. But the exercises included in this module will encourage you to expand upon this list. Working through this module will help you to view corporate governance from within from the micro perspective of the individual. Another module will allow you to see corporate governance from the outside from the macro point of view.

### 3.6.3 What you need to know . . .

#### 3.6.3.1 Personality Characteristics: The "Big Five" (plus one)

So much of success in practical and professional ethics lies in anticipating and defusing potential ethical challenges. Called "Preventive Ethics," this approach encourages you to develop the skill of uncovering latent or hidden ethical problems that could erupt into full-blown ethical dilemmas. "An ounce of prevention is worth a pound of cure." This module is designed to help you reflect on your personality, different organizational environments or ecologies, and how your personality fits into these moral ecologies. Your success depends on developing plans for successful moral careers that respond to your personality traits and resist ethical challenges presented by organizational environments.

#### Personality Characteristics: Find your place on the continuum

- |                                   |                        |
|-----------------------------------|------------------------|
| 1. Extraversion _____             | Introversion           |
| 2. Neuroticism _____              | Emotional              |
| Stability _____                   |                        |
| 3. Conscientiousness _____        | Carelessness.          |
| 4. Agreeableness _____            | Disagreeableness       |
| 5. Openness (to experience) _____ | Closed (to experience) |
| 6. Honesty/Humility _____         | Dishonesty/Arrogance   |

This account of personality modifies that presented by Huff et al in "Good computing: a pedagogically focused model of virtue in the practice of computing, parts 1 and 2."

### 3.6.3.2 Three Moral Ecologies

Summary Table

Type / Characteristics	Managers and engineers: role and participation	Centrality of ethics and values	Allocation of praise and blame	Withholding information	Treatment of dissent and DPOs
<b>Finance-Driven</b>	Managers play line role (=make decisions) Engineers provide technical information (=staff role)	Ethics and values are side constraints dealt with when they oppose financial considerations	Allocated according to hierarchical position: praise goes up and blame goes down.	Managers withhold to control and protect secrets. Engineers withhold bad news to avoid blame.	"Shoot the messenger!" Dissent = disloyalty and betrayal.
<b>Customer-Driven</b>	Managers make decisions on financial matters. Engineers "go to the mat" on engineering matters.	Ethics and values are not central but are still important.	Praise and blame are fairly allocated based on assigned responsibility and contribution.	Information not withheld but gaps arise because of role differences.	Differences occur but engineers are expected to advocate their perspective in decision making process.
<b>Quality-Driven</b>	Manager and engineering distinction drops out. Interdisciplinary work teams are empowered and responsible	Ethics and values are constitutive of the organization's identity.	Praise and blame are attributed to group and distributed to individuals within according to contribution.	Open consensus process ensures that needed information is integrated into decision making	Engineers and managers work toward consensus by gathering more information, continuing the discussion, and (as last resort) postponing the decision until consensus is reached.

**Table 3.9:** This table and the explanatory material below summarizes materials from studies reported by Davis (Thinking Like an Engineer) and Jackall (Moral Mazes). The reader should be aware that it departs somewhat from the strictly reported results in order to adopt the results to the idea of moral ecology. This later idea was introduced by R. Park in **Human Communities: The City and Human Ecology**, Free Press, Glencoe, IL, 1952.

#### Breakdown of Table

- Moral ecologies can be categorized according to a series of considerations. The table above focuses on five.

- First, managers and engineers occupy distinct roles and participate differently in the decision making process. Managers play the **line** role. They collect information to make decisions that govern the day to day operations of the corporation. Engineers are hired as **staff** employees. They provide technical information to decision makers but do not participate directly in the decision making process. This raises difficulties when engineers, for technical or ethical reasons, disagree with the decisions taken by their managers. The line and staff roles channel decision making and constrain dissent.
- Moral ecologies can also be typed according to the centrality of ethical considerations in the corporation's goals, charter, operations, and even identity. Ethical considerations can range from (1) playing a **central** role, (2) to playing an important but subordinate role, (3) to being marginalized as irrelevant **side constraints**. The importance a corporation places on ethics colors all the other categories mentioned in the table above. If ethics is central to a corporation then it plays a central role in the decision making process, guides the allocation of praise and blame, determines the nature and amount of information shared in the decision making process, and determines how an organization treats dissent and disagreement.
- A corporation's conception of responsibility is revealed through the ways in which it allocates praise and blame. Significant differences arise between the way finance companies assign praise and blame and the ways these are allocated in quality or customer driven companies. Again, this related to the roles played by engineers and managers and the centrality of ethics in the corporation's governance.
- Ethical problems arise when crucial information is withheld from the decision making process. Hence, the flow of communication and the kinds of situations in which communication flow is disrupted helps to characterize a moral ecology. For example, the Hitachi report asserts that communication between managers and engineers breaks down predictably within finance-driven companies. This breakdown is grounded in the characteristics of the finance-driven moral ecology, especially in differences between the managerial and engineering roles and the extent to which managers and engineers participate in decision making.
- Finally, moral ecologies can be classified according to how they treat dissent and dissenting professional opinions. Dissent is less likely in quality than in finance-driven companies. While finance-driven companies treat dissent as disloyalty, quality- and customer-driven driven companies treat dissent as a stage in the process of reaching consensus.

### Finance-Driven Companies

1. Finance-driven companies place financial objectives at the very heart of their constitutive objectives and corporate identity. For example, such companies are focused on maximizing returns for investors.
2. **Manager and Engineer Roles and Participation in Decision Making Process:** Managers play the line role in that they make the decisions that drive the day to day operations of the corporation. They bear responsibility for the consequences of their decisions and they are also responsible as the faithful agents of the company's directors. Being a faithful agent requires that one treat another's interests as one's own, maintain confidentiality, and avoid interests that conflict with the director. Engineers play the staff role, that is, they answer questions put to them by managers and are responsible for providing competent technical information. However, they do not participate directly in the decision making process, nor do they bear responsibility for the results of their manager's decisions.
3. **Centrality of ethics and values in the corporations decision making process:** Ethical considerations play only the role of side constraints in the setting of corporate policy and in the formulation and execution of its decisions. This means that ethical considerations are important only if they promote or interfere with the central, financial objectives. If appearing philanthropic is good for a corporation's image (and generates customers and profits) then the corporation appears philanthropic. If the corporation is likely to get caught in an ethical violation (excessive pollution) and this negative publicity will lower its prestige (and profits) then the corporation will not commit the violation. But in each case, the end is the promotion of financial objectives and the means are appearing ethical.
4. **Allocating Praise and Blame** Jackall goes into detail on how finance-driven corporations (and bureaucracies in general) assign praise and blame. The crucial factor is one's position in the corporate

hierarchy. Praise works its way up the corporate ladder. If engineer Smith saves the company from a severe financial loss, then Smith's supervisor (or his supervisor's supervisor) gets the credit. However, if Smith's supervisor messes up, the blame passes down the corporate ladder to Smith. Praise moves up the corporate hierarchy, blame down.

5. **Information Exchange between Engineers and Managers:** In finance driven companies, managers withhold information from the engineers under their supervision for a variety of reasons. For example, if it is proprietary information, the manager may withhold all or part to prevent engineers from leaving the firm and revealing its secrets to a competitor. Managers may also use information to wield power and authority. By keeping engineers in the dark (like mushrooms) they effectively maintain authority and prevent dissent. On the other hand, engineers withhold bad news from their managers to avoid blame as well as the "shoot the messenger" syndrome. (When the incompetent general receives bad news from a soldier, he shoots the soldier rather than respond to the news.)
6. **Handling Dissenting Professional Opinions:** Dissent is interpreted as disloyalty in finance-driven companies. This organizational habit (maintained by managers to hold on to their authority) will even undermine DPO (dissenting professional opinion) procedures that look good on paper. A good DPO procedure communicates the opinion to several levels of supervisor, allows for the independent investigation of the merits of the opinion, and prevents retaliation against the professional asserting the opinion. But ruthless managers find ways to undermine such a procedure at all levels. Engineers may claim the right not to be held as scape goats to administrative incompetence. (See the Theory Building Activities: Rights module) This right may be supported on paper by a detailed DPO procedure. But it also has to be implemented at all levels and continually monitored.

### Customer-Driven Companies

- Customer-driven companies focus on customer satisfaction. If the customer asks for or is satisfied with a lower quality product, then this is an acceptable result for this type of company as opposed to a quality driven company which would stand fast with the higher quality product.
- **Managers and engineers: roles and participation:** Managers make decisions on financial matters. But engineers are expected to "go to the mat" for engineering standards when these form all or part of the decision. Hence the distinction between managers (playing the line role) and engineers (playing the staff role) weakens, and engineers play a much more active role (advocates for engineering standards) in decision making. (Engineering standards include engineering ethics standards.)
- **Centrality of Ethics and Values:** While customer satisfaction plays the central role, ethical considerations are still important, especially regarding the ethical treatment of customers and reflecting the ethical values held by the customers. In many cases, it is difficult to distinguish quality and customer driven companies as the role ethical standards play gets closer to a central, constitutive one.
- **Allocation of Praise and Blame:** Responsibility in customer driven companies is tied closely to individual performance and contribution. This is because customer satisfaction is a more objective criterion than the internal political standards that dominate finance driven companies. Responsibility is closely aligned with contribution.
- **Withholding Information:** Information enhances control and responsibility. (The more you know, the more responsibly you can act.) Since praise and blame are allocated according to contribution, there is less incentive to withhold information. If communication gaps arise between engineers and managers, these are much more likely to hinge on disciplinary differences. Engineers may have trouble communicating technical information to managers, or appear condescending by "dumbing down" the information. Managers may have difficulties communicating financial constraints to engineers who focus on quality standards. But these are minor, resolvable gaps.
- **Treatment of Dissent:** Dissent and disagreement are not only tolerated but actually expected. Managers expect engineers to advocate for issues in their sphere as they pertain to the decision making process. This process itself is adversarial because it is assumed that this is the best way to get all the information out on the table. Bad news and professional dissenting opinions are not interpreted as disloyalty; in fact, disloyalty lies in refusing to expose flaws in the choices proposed by one's supervisor.

Managers expect their engineers to "go to the mat" when advocating technical positions based on their professional judgment.

### Quality-Driven Companies

- Quality-driven companies stand out for the emphasis they place on achieving high engineering standards and on elevating the participation of the engineer in the decision making process. As is implied by the name, the central focus of these corporations is the achievement of high quality in products and services.
- **Managers and Engineers: Role and Participation:** In quality-driven companies, the distinction between the manager and engineering roles drops out. For example, while engineers play the staff role and provide expert engineering advice, they also participate fully in the decision making process. The locus of decision making moves from individual managers to small interdisciplinary groups. These groups, in turn, carry out consensus-based decision making procedures.
- **Centrality of Ethics and Values:** In quality-driven companies, ethics and values are central to the organization's objectives, charter, and identity. This has a decisive impact on the role of the engineer in the decision-making process. In customer driven companies, engineers are expected to advocate engineering and ethical standards precisely because these are not central to the organization's identity. But the centrality of ethical concerns in quality driven companies changes the engineer's role from advocacy to channeling technical expertise toward realizing ethical value.
- **Allocation of praise and blame:** In customer-driven companies, blame avoidance procedures no longer dominate the decision making process. In quality driven companies they disappear completely. Decisions are made by interdisciplinary groups in which engineers and managers participate fully and equally. Responsibility (praise and blame) then is allocated to the group. If it is distributed to members inside the group it is done so on the basis of contribution. But the primary target of responsibility ascriptions is the group, not the individual. And the response to untoward happenings is not targeting individuals and groups for blame but taking measures to learn from mistakes and avoiding them in the future.
- **Withholding Information:** The open, consensus-based decision process ensures that the needed information is brought forth and integrated into the decision. This results from removing a primary motivation to withholding information, namely, blame avoidance. Quality-driven corporations aggressively move to prevent untoward occurrences and, should prevention fail, make adjustments to ensure they do not reoccur. The motive to withhold information does not arise in this moral ecology.
- **Treatment of Dissent and DOPs (dissenting professional opinions):** Engineers and managers work toward consensus by gathering information, discussing the problem and continuing the discussion until consensus is reached. Thus, dissent does not stand alone but is considered to be an essential and healthy component to the decision-making process. When consensus is not immediately reached, participants seek more information. If consensus is still not reached, the decision is postponed (if this is possible). The most viable strategy to reach consensus is to continue the discussion. For example, an engineer and manager might approach a supervisor; in this way they bring a new perspective into the decision-making process. They might consult other experts. The crucial point here is that disagreement (really non-agreement) is not a bad thing but a necessary stage in the process of reaching agreement and consensus.

### Skill Sets

- The four skills described below are derived from studying the moral expertise displayed by moral exemplars. Each moral ecology will require the exercise of each of the skills described below. However, each skill has to be contextualized into the moral ecology. For example, reasonableness should not be exercised in the same way in a finance-driven company as it should be exercised in a quality-driven company. The reasonable exercise of dissent is manifested differently in an environment where dissent is equated with disloyalty than in one in which dissent is embraced as a necessary part of the consensus-reaching process. So your job, in constructing your moral careers within these different moral ecologies,

is to contextualize the skill, that is, describe specifically how each skill should be practiced in each particular moral ecology.

- **Moral imagination** consists of projecting oneself into the perspective of others. It also includes multiple problem definitions and the ability to distance oneself from the decision situation to gain impartiality.
- **Moral creativity** is the ability to generate non-obvious solutions to moral challenges while responding to multiple constraints.
- **Reasonableness** consists of gathering relevant evidence, listening to others, giving reasons for one's own positions (arguments and evidence), and changing plans/positions only on the basis of good reasons.
- **Perseverance** involves planning moral action and responding to unforeseen circumstances while keeping moral goals intact.

### Personality Traits

- **Extraversion:** Extraversion, which is paired with its opposite, introversion, has also been called confident self-expression, assertiveness, social extraversion, and power. An individual in whom this trait dominates tends to be assertive and out-going.
- **Conscientiousness:** Individuals with this trait are successful in carrying out tasks because they can discipline themselves to stay focused on a task. They are successful in the right moral ecology and tend to conform to the basic norms of their environment. This trait can lead to bad results if not guided by moral considerations.
- **Neuroticism:** This trait indicates a lack of emotional stability. According to Huff et al., "it is correlated with less effective coping and depression." Neuroticism has also been shown to interfere with the exercise of moral skills. Is there a particular moral ecology that can heighten the negative impacts of this personality trait?
- **Agreeableness:** According to Huff et al, this trait has also been called "social adaptability, likability, friendly compliance, and love." Again think about how this trait would operate within a finance-driven moral ecology as opposed to a quality-driven one.

### Two Kinds of Moral Expertise

- Studies carried out by Chuck Huff into moral exemplars in computing suggest that moral exemplars can operate as craftspersons or reformers. (Sometimes they can combine both these modes.)
- Craftspersons (1) draw on pre-existing values in computing, (2) focus on users or customers who have needs, (3) take on the role of providers of a service/product, (4) view barriers as inert obstacles or puzzles to be solved, and (5) believe they are effective in their role.
- Reformers (1) attempt to change organizations and their values, (2) take on the role of moral crusaders, (3) view barriers as active opposition, and (4) believe in the necessity of systemic reform
- These descriptions of moral exemplars have been taken from a presentation by Huff at the STS colloquium at the University of Virginia on October 2006.

Skill sets, personality traits, and kinds of moral expertise are discussed in detail by Huff et al., "Good computing: a pedagogically focused model of virtue in the practice of computer, parts 1 and 2." These are published in **Information, communication and Ethics in Society**, Emerald Group Publishing Limited, Vol. 6, numbers 3 and 4 in 2008.

### 3.6.4 What you will do ...

In this section, you will learn about this module's activities and/or exercises. You will also find step by step instructions on how to carry them out.

#### Exercise 1: What we do when nobody is looking

- **You will be asked either to defend or criticize the following position on the nature and function of punishment**
- Entiendo que ser castigado es una manera de educar a la persona a cometi  la falta y a la sociedad en general para que comprendan y entiendan que su conducta es una falta y afecta a la sociedad. En conclusi n es una soluci n viable hasta el memento bastante efectiva siempre y cuando el castigo sea ejecutado de una manera prudente, saludable y dentro de lo que las leyes permiten.
- I understand that punishment educates both the individual at fault and society in general in order that they understand that their conduct is faulty and that it effects society. In conclusion, it is a viable solution and, up to the moment, sufficiently effective always and when the punishment is executed in a prudent and safe manner within what is permitted by the law.
- Restate this argument in your own words. (Try to shorten it by summarizing its key points.) Then discuss and clarify its key terms. Offer ethical and practical considerations in its defense.

### Exercise 2: Milgram and Business

- **Continuing with the task in part one, you will be asked to either defend or criticize the following position on the meaning that the results of the Milgram experiments have for business administration**
- The Milgram experiments teach us that under the right conditions, anyone is capable of committing immoral activities. If a strong, dominant boss exists and has a weak, dependable employer, then the employer will out of necessity do whatever the boss wants.
- Many people are willing to commit immoral acts even though they know it is wrong if they know they are not being watched.
- It teaches us that many employees tend to do illegal works just because their managers ask them to so they assume they will be taking full responsibility for the situation even though it is unethical.

### Exercise 3: Commentary Groups

- **Your job is to evaluate the arguments made by the teams debating in parts one and two. Be sure to focus on the argument and not the content of the position. Listen to their statements.**
- Do they base these on sound statements?
- What kind of ethical and practical principles (or values) do they use to make their case?
- Do their frame their position broadly or narrowly?

### Exercise 4: Closure Groups

- **After listening to the debate and commentary, recap what has happened and discuss whether there are any conclusions that can be drawn from this activity**
- Do people agree or disagree about these 2 issues?
- If there is agreement, why does it exist?
- If there is disagreement, why does it exist?
- Is agreement possible? Why or why not?

### Exercise 5

- Which moral ecology would you like to work in: finance-, customer, or quality-driven companies?
- Why? Specify your answer in terms of how the company allocates praise or blame, the centrality of moral concerns, the role given to professionals, the circumstances under which information is withheld, and the typical response to bad news.
- Why? What configuration of personality traits best fits within which moral ecology?

### 3.6.5 What did you learn?

This module was designed to help you visualize how to realize a moral career within three dominant moral ecologies. Apply these matters to yourself. Which moral ecology would be best for you? Of the two moral careers mentioned above, reformer and helper, which best fits your personality? Why? In other words, begin the process of visualizing and planning your own moral career.

### 3.6.6 Appendix

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This optional section contains additional or supplementary information related to this module. It could include: assessment, background such as supporting ethical theories and frameworks, technical information, discipline specific information, and references or links.

### 3.6.7 EAC ToolKit Project

**3.6.7.1 This module is a WORK-IN-PROGRESS; the author(s) may update the content as needed. Others are welcome to use this module or create a new derived module. You can COLLABORATE to improve this module by providing suggestions and/or feedback on your experiences with this module.**

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## Chapter 4

# Case Studies in Property and Free Speech

### 4.1 Toysmart Case Exercises - Student Module<sup>1</sup>

HOW TO EDIT: Write your module for a student audience. To complete or edit the sections below erase the provided textual commentaries then add your own content using one or more of the following strategies:

- Type or paste the content directly into the appropriate section
- Link to a published CNX module or an external online resource using the ‘‘Links’’ tabs (see example on the right)
- Link to a document or multimedia file within the content after uploading the file using the ‘‘Files’’ tab (see example below)
- Cite content not available online

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#### Word Version of this Template

This media object is a downloadable file. Please view or download it at  
< EAC TK STD TEMPLATE.doc>

**Figure 4.1:** This is an example of an embedded link. (Go to "Files" tab to delete this file and replace it with your own files.)

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#### 4.1.1 Introduction

In this module you will study a real world ethical problem, the Toysmart case, and employ frameworks based on the software development cycle to (1) specify ethical and technical problems, (2) generate solutions that

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m14789/1.9/>>.

Available for free at Connexions <<http://cnx.org/content/col11447/1.9/>>

integrate ethical value, (3) test these solutions, and (4) implement them over situation-based constraints. This module will provide you with an opportunity to practice integrating ethical considerations into real world decision-making and problem-solving in business and computing. This whole approach is based on an analogy between ethics and design (Whitbeck).

Large real world cases like Toysmart pivot around crucial decision points. You will take on the role of one of the participants in the Toysmart case and problem-solve in teams from one of three decision points. Problem-solving in the real world requires perseverance, moral creativity, moral imagination, and reasonableness; one appropriates these skills through practice in different contexts. Designing and implementing solutions requires identifying conflicting values and interests, balancing them in creative and dynamic solutions, overcoming technical limits, and responding creatively to real world constraints.

Each decision point requires that you take up the position of a participant in the case and work through decision-making frameworks from his or her perspective. You may be tempted to back out and adopt an evaluative posture from which to judge the participants. Resist this temptation. This module is specifically designed to give you practice in making real world decisions. These skills emerge when you role play from one of the standpoints within the case. You will learn that decision-making requires taking stock of one's situation from within a clearly defined standpoint and then accepting responsibility for what arises from within that standpoint.

Cases such as Toysmart are challenging because of the large amount of information gathering and sorting they require. Moral imagination responds to this challenge by providing different framings that help to filter out irrelevant data and structure what remains. Framing plays a central role in problem specification. For example, Toysmart could be framed as the need to develop more effective software to help negotiate the exchange of information online. In this case, a software programming expert would be brought in to improve P3P programs. Or it could be framed as a legal problem that requires amending the Bankruptcy Code. What is important at this stage is that you and your group experiment with multiple framings of the case around your decision point. This makes it possible to open up avenues of solution that would not be possible under one framing.

Tackling large cases in small teams also helps develop the communication and collaboration skills that are required for group work. Take time to develop strategies for dividing the work load among your team members. The trick is to distribute equally but, at the same time, to assign tasks according the different abilities of your team members. Some individuals are better at research while others excel in interviewing or writing. Also, make sure to set aside time when you finish for integrating your work with that of your teammates. Start by quickly reviewing the information available on the case. This is called "scoping the case." Then formulate specific questions to focus further research on information relevant to your problem solving efforts. This includes information pertinent to constructing a socio-technical analysis, identifying key "embedded" ethical issues, and uncovering existing best and worst practices.

A case narrative, STS (socio-technical system) description, and two ethical reflections have been published at <http://computingcases.org>. This module also links to websites on bankruptcy and privacy law, the Model Business Corporation Act, consumer privacy information, and the TRUSTe website.

#### 4.1.1.1 Toysmart Narrative

Toysmart was a Disney-supported company that sold educational toys online from December 1998 to May 2000. After disappointing Christmas sales in 1999, Disney withdrew its financial support. The greatly weakened dot-com company lasted less than a year after this. On May 22, 2000, Toysmart announced that it was closing down and brought in a consulting firm, The Recovery Group, to evaluate its assets, including a customer data base of 260,000 profiles, each worth up to \$500.

Fierce opposition emerged when Toysmart placed ads in the **Wall Street Journal** and the **Boston Globe** to sell this data base. Customer interest groups pointed out that Toysmart had promised not to share customer information with third parties. Toysmart also prominently displayed the TRUSTe seal which testified further to the company's obligations to respect customer privacy and security. Selling this data to third parties would break Toysmart promises, violate TRUSTe policies, and undermine consumer confidence

in the security and privacy of online transactions. Toysmart's obligations to its customers came into direct conflict with its financial obligations to its investors and creditors.

TRUSTe reported Toysmart's intention to sell its data base to the FTC (Federal Trade Commission) who on July 10, 2000 filed a complaint "seeking injunctive and declaratory relief to prevent the sale of confidential, personal customer information" (FTC article) Toysmart's promise never to share customer PII with third parties provided the legal foundation for this complaint. According to the FTC, Toysmart "violated Section 5 of the FTC Act by misrepresenting to customers that personal information would **never** be shared with third parties, then disclosing, selling, or offering that information for sale." Finally, because it collected data from children under 13 who entered various contests offered on its website, Toysmart was also cited for violating the Children's Online Privacy Protection Act or COPPA.

The FTC reached a settlement with Toysmart. The bankrupt dot-com must "file an order in the bankruptcy court prohibiting the sale of its customer data as a 'stand-alone asset'. In other words, the rights bundled in the liquidation and sale of Toysmart did not include the liberty of buyers to dispose of the asset in whatever way they saw fit. According to the negotiated settlement, buyers were bound by the commitments and promises of the original owners. Toysmart creditors "can sell electronic assets only if the purchasing company abided by the same privacy policy." In essence, the FTC asked Toysmart creditors to honor the spirit, if not the letter, of Toysmart's original promise to its customers not to sell their PII to third parties. Creditors now had to guarantee that (1) the buyer had the same basic values as Toysmart (for example, a commitment to selling quality, educational toys), (2) the buyer use the data in the same way that Toysmart had promised to use it when collecting it, and (3) the buyer would not transfer the information to third parties without customer consent. In this way, the settlement proposed to protect Toysmart customer privacy interests while allowing creditors to recover their losses through the sale of the bankrupt company's "crown jewel", its customer data base.

On August 17, 2000, the Federal Bankruptcy Court declined to accept the Toysmart-FTC settlement. Instead, they argued that Toysmart and the FTC should wait to see if any parties willing to buy the data base would come forward. The Bankruptcy Court felt that potential buyers would be scared off by the FTC suit and the pre-existing obligations created by Toysmart promises and TRUSTe standards. Should a buyer come forth, then they would evaluate the buyer's offer in terms of the FTC-Toysmart settlement designed to honor the privacy and security commitments made to Toysmart customers.

A final settlement was reached on January 10, 2001. When a buyer did not come forward, Buena Vista Toy Company, a Disney Internet subsidiary who was also a major Toysmart creditor, agreed to buy the data base for \$50,000 with the understanding that it would be immediately destroyed. The data base was then deleted and affidavits were provided to this effect.

#### 4.1.1.2 Toysmart Chronology

##### Time Line

1997	David Lord, former college football player, come to work for Holt Education Outlet in Waltham, Mass.
December 1998	Lord and Stan Fung (Zero Stage Capital) buy Holt Education Outlet and rename it "Toysmart." (Lorek) Toysmart focuses on providing customers with access to 75,000 toys through online catalogue. (Nashelsky).
<i>continued on next page</i>	

August 1999	Toysmart turns down a 25 million offer from an investment firm. Accepts Disney offer of 20 million in cash and 25 million in advertising,
September 1999	Toysmart post privacy policy which promises not to release information collected on customers to third parties. At about this time, Toysmart receives permission from TRUSTe to display its seal certifying that Toysmart has adopted TRUSTe procedures for protecting privacy and maintaining information security.
Christmas 1999	After disappointing Christmas toy sales, Disney withdraws its support from Toysmart.
April 2000	COPPA goes into effect. (Childhood Online Privacy Protection Act) Prohibits soliciting information from children under 13 without parental consent.
June 2000 (approximately)	Toysmart erases 1500 to 2000 customer profiles from data base to comply with COPPA (information collected after law went into effect)
May 22, 2000	Toysmart announces that it is closing its operations and selling its assets. Its initial intention is to reorganize and start over.
June 9, 2000	Toysmart creditors file an involuntary bankruptcy petition rejecting Toysmart proposal to reorganize. They petition the U.S. Trustee to form a Creditors Committee to oversee the liquidation of Toysmart assets.
June 23, 2000	Toysmart consents to involuntary bankruptcy petition. Files Chapter 11 bankruptcy. It rejects reorganization and works with lawyers and the Recovery Group to liquidate its assets.
June 2000	Recovery Group analyzes Toysmart assets and identifies its customer information data base as one of its most valuable assets (a "crown jewel")
June 9, 2000	Disney subsidiary, acting as Toysmart creditor, places ads in <b>Wall Street Journal</b> and <b>Boston Globe</b> offer Toysmart customer data base for sale.
<i>continued on next page</i>	

After June 9, 2000	TRUSTe discovers Toysmart ad. Informs FTC (Federal Trade Commission) that selling of customer data base to third parties violates TRUSTe guidelines and violates Toysmart's promises to customers(13,2)
July 10, 2000	FTC files complaint against Toysmart "seeking injunctive and declaratory relief to prevent the sale of confidential, personal customer information." District attorneys of 41 states also participate in complaint against Toysmart.
July 27, 2000	Hearing by U.S. Bankruptcy Court on Toysmart case. Includes Toysmart proposal to sell customer data base.
Late July 2000	FTC and Toysmart reach settlement. Toysmart can only sell customer information to a third party who shares Toysmart values and agrees to carry out same privacy policy as Toysmart.
Late July 2000	Federal bankruptcy court rejects FTC and Toysmart settlement. Suggests waiting to see if a buyer comes forth.
January 10, 2001	Walt Disney Internet subsidiary (Buena Vista Toy Company?) pays Toysmart \$50,000 for its data base. Toysmart then destroys the data base and provides confirming affidavit.(18,2)

**Table 4.1:** Chronology of Toysmart Case

Insert paragraph text here.

#### 4.1.1.3 Supporting Documents and Tables

##### Toysmart Creditors

Creditor	Description	Debt	Impact
<b>Zero Stage Capital</b>	Venture Capital Firm	4 million	
<b>Citibank</b>		4 million	
<b>Arnold Communications</b>		2.5 million	
<b>Children's Television Workshop</b>		1.3 million	
<i>continued on next page</i>			

<b>Data Connections</b>	Set up high speed cable and fiber optics for Toysmart	85,000	Data Connections took out loan to keep solvent
<b>Integrated Handling Concepts</b>	Set up packaging and handling system for Toysmart	40,000	Requires dot-coms to pay up front after Toysmart experience
<b>Blackstone</b>	Software business	45,000	"It puts us in jeopardy as well"
<b>PAN Communications</b>	"Public relations agency specializing in e-business"	171,390	Turns down deals with dot-com companies and requires up-front payments

Table 4.2: Source Lorek

Insert paragraph text here.

#### 4.1.1.4 Intermediate Moral Concept: Informed Consent

##### Concept and Definition

- **Informed Consent:** The risk bearer consents to taking on the risk on the basis of a complete understanding of its nature and breadth.
- **Belmont Report:** "subjects, to the degree that they are capable, be given the opportunity to choose what shall or shall not happen to them."
- "This opportunity is provided when adequate standards for informed consent are satisfied."
- Quotes take from Belmont Report

##### Arguments for Free and Informed Consent as a Moral Right

- Free and informed consent is **essential** for the exercise of moral autonomy. Absence implies force, fraud, or manipulation all of which block the exercise of moral autonomy.
- The **standard threat** occurs when crucial risk information is not communicated to risk taker. This could be because the risk taker cannot appreciate the risk, because the mode of communication is inadequate, or because the information has been covered up. Given this standard threat, free and informed consent is **vulnerable**; it must be protected.
- Informed consent must be shaped around its feasibility, that is, the ability of the duty holder to recognize and respect this right in others. If private individuals exercise their right as a veto, then they can block socially beneficial projects. There are also serious problems concerning children, mentally challenged adults, and future generations. Finally, it may not be possible or feasible to know all risks in advance.

##### Conditions for Recognizing and Respecting Right

- From **Belmont Report**
- **Information:** research procedure, their purposes, risks and anticipated benefits, alternative procedures (where therapy is involved), and a statement offering the subject the opportunity to ask questions and to withdraw at any time from the research.
- **Comprehension:** manner and context in which information is conveyed is as important as the information itself.
- **Voluntariness:** an agreement to participate in research constitutes a valid consent only if voluntarily given. This element of informed consent requires conditions free of coercion and undue influence.



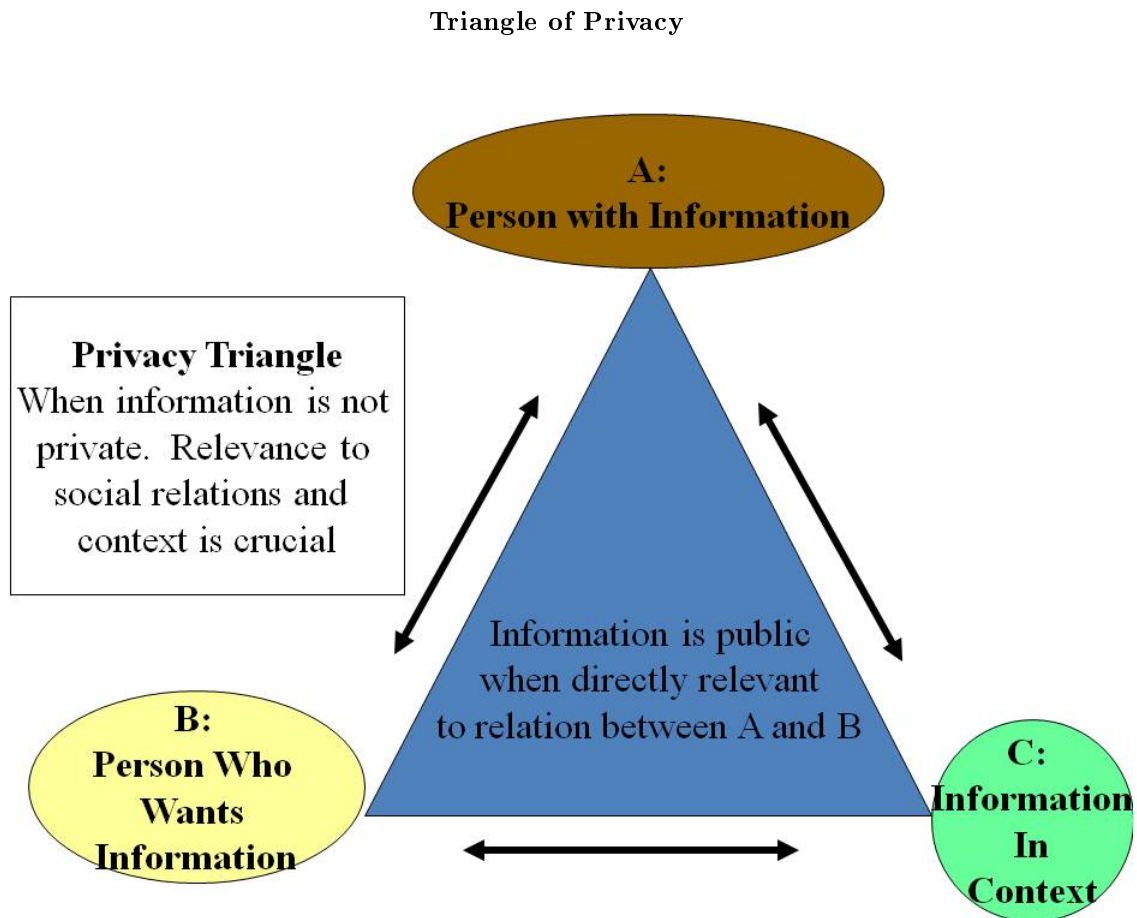
## Other Legal and Moral Frameworks

- Institutional Research Boards or IRBs now require documentation of informed consent on research projects carried out under the university's auspices. This is in response to requirements by granting agencies such as the National Institute for Health and the National Science Foundation.
- **Consenting to the transfer of PII (personal identifying information) online:** opt-in and opt-out.
- **Opt-in:** Information is transferred only upon obtaining express consent. Default is not transferring information.
- **Opt-in:** Information transfer is halted only when person to whom information applies does something positive, i.e., refuses to consent to transfer. Default is on transferring the information.
- **Liability Rules and Property Rules:** These also have to do with consent. Sagoff makes this distinction with reference to activities that have an impact on the environment. an injunction referring to liability rules stops the activity to protect the individual who proves impact. Property rules require only that the producer of the environmental impact compensate the one who suffers the impact.

## Cases Employing Informed Consent

- **Therac-25:** Patients receiving radiation therapy should be made aware of the risks involved with treatment by the machine. Free and informed consent is involved when shutting down the machines to investigate accident reports or continuing operating the machines while investigating accident reports. In both cases, it is necessary, under this right, to let patients know what is going on and their risks.
- **Toysmart Case:** Toysmart creditors are about to violate Toysmart's promise not to transfer customer information profiles to third parties. This transfer can occur, morally, but only with the express consent of the customers who have provided the information. The devil is in the details. Do opt-in or opt-out procedures best recognize and respect free and informed consent in this case?
- **Hughes Case:** Hughes customers want their chips right away and are pressuring Saia and crowd to deliver them. Would they consent to renegotiating the conditions under which environmental tests can be skipped?

## 4.1.2 Privacy and Property Summaries



**Figure 4.2:** Seeing privacy in its STS Context.

### Intellectual Property

- I own that with which I mix my labor
- The US constitution attempts to balance two contradictory policies of property
  - Giving innovators and inventors control to encourage more innovation
  - Limiting this control to ensure dissemination of good ideas throughout society
- One way to do this: bundle different liberties under property
  - possess, control, use, benefit from, dispose of, and exclude others
- Another way to do this is to create and balance two things
  - Intellectual commons: shared repository of ideas
  - Legal devices to restrict dissemination and use of property: patents, copyright, trade secrets
  - Control/ Adjustment: extending-contracting terms limits
- Intellectual property is different from physical property
  - Ideas are non-rivalrous (like one candle lighting another)
  - Ideas are non-excludable (like the air which cannot be contained in one restricted area)
  - These two characteristics make ideas “ideal” for forming an “intellectual commons”

**Figure 4.3:** Summary of issues on Intellectual Property

#### Bibliographical Note

The triangle of privacy is widely disseminated in the literature of business ethics. The author first became aware of it from George G Brenkert (1981) "Privacy, Polygraphs and Work," **Business and Professional Ethics** 1, Fall 1981" 19-34. Information on intellectual property comes from Lawrence Lessig (2006) **Code.2**, Basic Books: Chapter 10.

### 4.1.3 What you need to know ...

#### 4.1.3.1 What you need to know about socio-technical systems

**1. STS have seven broad components: hardware, software, physical surroundings, people/groups/roles, procedures, laws, and data/data structures.**

**2. Socio-technical systems embody values**

- These include moral values like safety, privacy, property, free speech, equity and access, and security. Non-moral values can also be realized in and through Socio Technical Systems such as efficiency, cost-effectiveness, control, sustainability, reliability, and stability.

- Moral values present in Socio Technical Systems can conflict with other embedded moral values; for example, privacy often conflicts with free speech. Non-moral values can conflict with moral values; developing a safe system requires time and money. And, non-moral values can conflict; reliability undermines efficiency and cost effectiveness. This leads to three problems that come from different value conflicts within Socio Technical Systems and between these systems and the technologies that are being integrated into them.
- Mismatches often arise between the values embedded in technologies and the Socio Technical Systems into which they are being integrated. As UNIX was integrated into the University of California Academic Computing STS (see Machado case at Computing Cases), the values of openness and transparency designed into UNIX clashed with the needs of students in the Academic Computing STS at UCI for privacy.
- Technologies being integrated into Socio Technical Systems can magnify, exaggerate, or exacerbate existing value mismatches in the STS. The use of P2P software combined with the ease of digital copying has magnified existing conflicts concerning music and picture copyrights.
- Integrating technologies into STSs produces both immediate and remote consequences and impacts.

### 3. Socio-technical systems change

- These changes are brought about, in part, by the value mismatches described above. At other times, they result from competing needs and interests brought forth by different stakeholders. For example, bicycle designs, the configuration of typewriter keys, and the design and uses of cellular phones have changed as different users have adapted these technologies to their special requirements.
- These changes also exhibit what sociologists call a “trajectory”, that is, a path of development. Trajectories themselves are subject to normative analysis. For example, some STSs and the technologies integrated into them display a line of development where the STS and the integrated technology are changed and redesigned to support certain social interests. The informing capacities of computing systems, for example, provide information which can be used to improve a manufacturing processes can or to monitor workers for enhancing management power. (See Shoshanna Zuboff, **The Age of the Smart Machine**)
- Trajectories, thus, outline the development of STSs and technologies as these are influenced by internal and external social forces.

In this section, you will learn about this module’s exercises. The required links above provide information on the frameworks used in each section. For example, the Socio-Technical System module provides background information on socio-technical analysis. The "Three Frameworks" module provides a further description of the ethics tests, their pitfalls, and the feasibility test. These exercises will provide step by step instructions on how to work through the decision points presented above.

**For more information see Huff and Jawer below.**

#### Decision Point One:

You are David Lord, a former employee of Holt Educational Outlet, a manufacturer of educational toys located in Waltham, Mass. Recently, you have joined with Stan Fung of Zero Stage Capital, a venture capital firm to buy out Holt Educational Outline. After changing its name to Toysmart, you and Fung plan to transform this brick and mortar manufacturer of educational toys into an online firm that will link customers to a vast catalogue of educational, high quality toys. Designing a website to draw in toy customers, linking to information on available toys, setting up a toy distribution and shipping system, and implementing features that allow for safe and secure online toy purchases will require considerable financing. But, riding the crest of the dot-com boom, you have two promising options. First, a venture capital firm has offered you \$20,000,000 for website development, publicity, and other services. Second, Disney has offered the same amount for financing, but has added to it an additional \$25,000,000 in advertising support. Disney has a formidable reputation in this market, a reputation which you can use to trampoline Toysmart into prominence in the growing market in educational toys. However, Disney also has a reputation of micro-managing its partners. Develop a plan for financing your new dot-com.

**Things to consider in your decision-making:**

1. What are Toysmart values? What are Disney values? Would Disney respect Toysmart's values?
2. What synergies could result from working with Disney? For example, could you share information on customers? You could feed your customer profiles to Disney in exchange for their customer profiles. What kind of data managing technology would be required for this? What ethical problems could arise from transferring customer identifying information to third parties?
3. What kind of commitment would you be willing to make to Disney in terms of product and sales? How should Disney reciprocate? For example, how long should they stick with you through sales that fall short of projections?

#### **Decision Point Two:**

You work for Blackstone, "an 18-person software business." You have been asked by Toysmart to provide software the following functions: (1) designing a webpage that would attract customers and communicate Toysmart Values, (2) advise Toysmart on its privacy and data security policy including whether to register with an online trust, security measures to protect customer data during online transactions, and measures to prevent unauthorized access to customer data while stored, and (3) a comprehensive online catalogue that would provide customers with access to educational toys from a variety of small business manufacturers. An example of small toy manufacturers to which Toysmart should be linked is Brio Corporation which manufactures wooden toys such as blocks, trains, and trucks. Develop general recommendations for Toysmart around these three areas.

Information for this scenario comes from Laura Lorek, "When Toysmart Broke," <http://www.zdnet.com/eweek/stories/general/0,1101,2612962,00.html>. Accessed July 16, 2001.

#### **Things to consider in your decision-making**

- Toysmart is a fairly new dot-com. While it is supported by Disney, it is still a risky venture. Should you ask them for advance payment for whatever services you render? What kind of policies does your company have for identifying and assessing financial risk?
- What kind of privacy and data security policy should you recommend to Toysmart? What kind of values come into conflict when a company like Toysmart develops and implements privacy and data security measures? (Use your STS description to answer this question.)
- Should Toysmart become bankrupt, their data base would turn into a valuable asset. What recommendations should you make to help Toysmart plan around this possibility? What values come into conflict when planning to dispose of assets during bankruptcy proceedings? What kind of obligations does a company take on during its operation that continue even after it has become bankrupt?
- Using the link provided with this module, visit the TRUSTe website and find its white paper on developing a privacy policy. Evaluate this privacy policy for Toysmart. What benefits can a strong privacy policy bring to a dot-com? Should Toysmart work to qualify to display the TRUSTe seal on its website? Examine TRUSTe procedures for transferring confidential customer PII to third parties? What obligations will this create? Would this over-constrain Toysmart?

#### **Decision Point Three:**

You work for PAN Communications and have been providing advertising services for Toysmart. Now you find out that Toysmart has filed a Chapter 11 bankruptcy, and it has an outstanding debt to your company for \$171,390. As a part of this filing procedure, Toysmart has reported its assets at \$10,500,000 with debts of \$29,000,000. Toysmart creditors, including PAN Communications, have petitioned the Office of the United States Trustee for a "Creditors' Committee Solicitation Form." This will allow for the formation of a committee composed of Toysmart creditors who decide on how the assets of the bankrupt firm will be distributed. You, because of your knowledge of bankruptcy and accounting procedures, have been asked to represent your company on this committee. This bleak situation is somewhat remedied by the customer data base that Toysmart compiled during its operation. It contains profiles of the PII (personal identifying information) of 260,000 individuals. Because selling educational toys is profitable, there is a good chance that this data base could be sold for up to \$500 a profile to a third party. Should you recommend selling this data base? Should Toysmart customers be notified of the pending transfer of their PII and, if so, how should they be notified?

### Here are some constraints that outline your decision

- As a member of the Creditors' Committee, you have a fiduciary duty to Toysmart creditors in working to distribute fairly the remaining Toysmart assets. This would, all things being equal, lead to recommending selling the Toysmart customer data base
- There are some provisions in the bankruptcy code that may require or allow overriding fiduciary duties given prior legal commitments made by Toysmart. These commitments, in the form of strong privacy guarantees made to customers by Toysmart on its webpage, may constitute an "executory contract." See the Legal Trail table in the Toysmart case narrative and also Larren M. Nashelsky, "On-Line Privacy Collides With Bankruptcy Creditors," New York Law Journal, New York Law Publishing Company, August 28, 2000.
- Finally, Nashelsky makes an interesting argument. While deontological considerations would require setting aside creditor interests and honoring Toysmart privacy promises, a justice-based argument would recommend a compromise. Bankruptcy proceedings start from the fact that harm (financial) has been done. Consequently, the important justice consideration is to distribute fairly the harms involved among the harmed parties. Harm distributions are correlated with benefit distributions. Because Toysmart customers benefited from Toysmart offerings, they should also bear a share of the harms produced when the company goes bankrupt. This requires that they allow the distribution of their PII under certain conditions.

### Things to consider in your decision-making

- How do you balance your obligations to PAN with those to other Toysmart creditors as a member of the Creditors' Committee?
- How should you approach the conflict between honoring Toysmart promises and carrying out Creditor Committee fiduciary duties? Do you agree with Nashelsky's argument characterized above?
- Should the Bankruptcy Code be changed to reflect issues such as these? Should privacy promises be considered an "executory contract" that overrides the duty to fairly and exhaustively distribute a company's assets?
- Finally, what do you think about the FTC's recommendation? The Bankruptcy Court's response? The final accommodation between Toysmart and Buena Vista Toy Company?

#### 4.1.4 What you will do ...

In this section, you will learn about this module's exercises. The required links above provide information on the frameworks used in each section. For example, the Socio-Technical System module provides background information on socio-technical analysis. The "Three Frameworks" module provides a further description of the ethics tests, their pitfalls, and the feasibility test. These exercises will provide step by step instructions on how to work through the decision points presented above.

#### 4.1.5 Exercise One: Problem Specification

In this exercise, you will specify the problem using socio-technical analysis. The STS section of the Toysmart Case narrative (found at Computing Cases) provides a good starting point. In the first table, enter the information from the Toysmart case materials pertinent to the general components of a STS, its hardware, software, physical surroundings, people/groups/roles, procedures, laws, data. Some examples taken from the STS description at Computing Cases are provided to get you started. Then, using the second table, identify the values that are embedded in the different components of the STS. For example, PICS (platforms for internet content selection) embody the values of security and privacy. Finally, using the data from your socio-technical analysis, formulate a concise problem statement.

##### Exercise 1a:

Read the socio-technical system analysis of the Toysmart case at <http://computingcases.org>. Fill in the table below with elements from this analysis that pertain to your decision point.

**Socio-Technical System Table**

Hardware	Software	Physical Surroundings	People/Groups	Procedures	Laws, Codes, Regulations	Data and Data Structures
Holt Education Outlet	Platforms for Internet Content Selection	Cyber Space	Toysmart the corporation	Buying Toys Online	COPPA	Toysmart Customer Data Base

Table 4.3

**Instructions for Table 1:**

1. Go to <http://computingcases.org> and review the STS description provided for the Toysmart case.
2. Pull out the elements of the STS description that are relevant to your decision point. List them under the appropriate STS component in the above table.
3. Think about possible ways in which these components of the Toysmart STS interact. For example, what kinds of legal restrictions govern the way data is collected, stored, and disseminated?
4. Develop your STS table with an eye to documenting possible ethical conflicts that can arise and are relevant to your decision point.

**Values Embedded by Relevant Software**

Software / Value Embedded	PICS (Platforms for Internet Content Selection)	(Platforms for Privacy Preferences)	SSLs (Secured Socket Layers) that encrypt pages asking for SS numbers
<b>Security</b>	Embodies privacy and security by filtering objectionable data. Security selected over free speech.	Integrates property with security and privacy by converting information into property.	Realizes / supports security by sealing off domains of information.
<b>Privacy</b>	Embodies privacy and security by filtering objectionable data. Security selected over free speech.	Integrates property and security by filtering objectionable data. Security selected over free speech.	Realizes and supports privacy by sealing off domains of information.
<b>Property</b>		Integrates property with security and privacy by converting information into property	Realizes and supports property by restricting access (intellectual property protected by excluding non-authorized access.
<i>continued on next page</i>			



<b>Free Speech</b>	Interferes with free speech by filtering content. Content can be filtered with recipient's awareness.	Facilitates by permitting information exchange on model of property exchange. But this limits exchange by assigning it a price.	Restricts access.
<b>Justice (Equity and Access)</b>	Could be used to restrict access to ideas by filtering ideas. Thus it could cut off flow of information into the intellectual commons.	Facilitates by permitting information exchange on model of property exchange. But this limits exchange by assigning it a price.	Because it restricts access to a domain, it can be used to reduce or cut off flow of information into the intellectual commons.

**Table 4.4:** Values embedded in key software components in the Toysmart case. Emphasis on machine/software negotiation for privacy preferences in Internet transactions.

### Exercise 1b

Examine the values embedded in the STS surrounding this decision point. Locate your values under the appropriate component in the Toysmart STS. For example, according to the STS description for Toysmart found at Computing Cases, the software programs prominent in this case embody certain values; SSLs embody security and privacy, P3P property, and PICS privacy. Next, look for areas where key values can come into conflict.

**Value Table**

Hardware	Software	Physical Surroundings	People/Groups/Institutions	Procedures	Laws/Codes/Regulations	Regulatory Data Structures
Security						
Privacy						
Property						
Justice (Equity/Access)						
Free Speech						

**Table 4.5**

### Instructions for Table 2:

1. This module links to another Connexions module, Socio-Technical Systems in Professional Decision-Making. There you will find short profiles of the values listed in the above table: security, privacy, property, justice, and free speech. These profiles will help you to characterize the values listed in the above table.
2. The second ethical reflection in the Toysmart case narrative (at Computing Cases) also contains a discussion of how property comes into conflict with privacy.
3. Identify those components of the Toysmart STS that embody or embed value. For example, list the values realized and frustrated by the software components discussed in the Toysmart case in the STS description.
4. Look for ways in which different elements of the STS that embed value can interact and produce value conflicts. These conflicts are likely sources for problems that you should discuss in your problem statement and address in your solution.

**Exercise 1c:**

Write out the requirements (ethical and practical) for a good solution. Identify the parts of the STS that need changing. Then, develop a concise summary statement of the central problem your decision point raises. As you design solutions to this problem, you may want to revise this problem statement. Be sure to experiment with different ways of framing this problem.

**Harris, Pritchard, and Rabins provide a useful approach to problem specification. See references below.**

**4.1.6 Exercise Two: Solution Generation**

**Generate solutions to the problem(s) you have specified in Exercise 1. This requires that...**

- each member of your group develop a list of solutions,
- the group combines these individual lists into a group list, and...
- the group reduces this preliminary list to a manageable number of refined and clarified solutions for testing in the next stage.

**Helpful Hints for Solution Generation****1. Solution generation requires proficiency in the skills of moral imagination and moral creativity.**

Moral imagination is the ability to open up avenues of solution by framing a problem in different ways. Toysmart could be framed as a technical problem requiring problem-solving skills that integrate ethical considerations into innovative designs. Moral creativity is the ability to formulate non-obvious solutions that integrate ethical considerations over various situational constraints.

**2. Problems can be formulated as interest conflicts. In this case different solution options are available.**

- **Gather Information.** Many disagreements can be resolved by gathering more information. Because this is the easiest and least painful way of reaching consensus, it is almost always best to start here. Gathering information may not be possible because of different constraints: there may not be enough time, the facts may be too expensive to gather, or the information required goes beyond scientific or technical knowledge. Sometimes gathering more information does not solve the problem but allows for a new, more fruitful formulation of the problem. Harris, Pritchard, and Rabins in *Engineering Ethics: Concepts and Cases* show how solving a factual disagreement allows a more profound conceptual disagreement to emerge.
- **Nolo Contendere.** Nolo Contendere is latin for not opposing or contending. Your interests may conflict with your supervisor but he or she may be too powerful to reason with or oppose. So your only choice here is to give in to his or her interests. The problem with nolo contendere is that non-opposition is often taken as agreement. You may need to document (e.g., through memos) that you disagree with a course of action and that your choosing not to oppose does not indicate agreement.
- **Negotiate.** Good communication and diplomatic skills may make it possible to negotiate a solution that respects the different interests. Value integrative solutions are designed to integrate conflicting values. Compromises allow for partial realization of the conflicting interests. (See the module, **The Ethics of Team Work**, for compromise strategies such as logrolling or bridging.) Sometimes it may be necessary to set aside one's interests for the present with the understanding that these will be taken care of at a later time. This requires trust.
- **Oppose.** If nolo contendere and negotiation are not possible, then opposition may be necessary. Opposition requires marshalling evidence to document one's position persuasively and impartially. It makes use of strategies such as leading an "organizational charge" or "blowing the whistle." For more on whistle-blowing consult the discussion of whistle blowing in the Hughes case that can be found at computing cases.

- **Exit.** Opposition may not be possible if one lacks organizational power or documented evidence. Nolo contendere will not suffice if non-opposition implicates one in wrongdoing. Negotiation will not succeed without a necessary basis of trust or a serious value integrative solution. **As a last resort**, one may have to exit from the situation by asking for reassignment or resigning.

### 3. Solutions can be generated by readjusting different components of the STS.

- **Technical Puzzle.** If the problem is framed as a technical puzzle, then solutions would revolve around developing designs that optimize both ethical and technical specifications, that is, resolve the technical issues and realize ethical value. In this instance, the problem-solver must concentrate on the hardware and software components of the STS.
- **Social Problem.** If the problem is framed as a social problem, then solutions would revolve around changing laws or bringing about systemic reform through political action. This would lead one to focus on the people/groups/roles component (working to social practices) or the legal component.
- **Stakeholder Conflict.** If the problem is framed as a conflict between different stakeholder interests, then the solution would concentrate on getting stakeholders (both individuals and groups) to agree on integrative or interest compromising solutions. This requires concentrating on the people/group/role component of the STS. (Note: A stakeholder is any group or individual with a vital interest at play in the situation.)
- **Management Problem.** Finally, if the problem is framed as a management problem, then the solution would revolve around changing an organization's procedures. Along these lines, it would address the (1) fundamental goals, (2) decision recognition procedures, (3) organizational roles, or (4) decision-making hierarchy of the organization. These are the four components of the CID (corporate internal decision) structure described in the "Ethical Reflections" section of the Toysmart case.
- **Nota Bene:** Financial issues are covered by the feasibility test in the solution implementation stage. As such, they pose side issues or constraints that do not enter into the solution generation phase but the solution implementation phase.

### 4. Brainstorming. Moral creativity, which involves designing non-obvious solutions, forms an essential part of solution generation. Here are some guidelines to get you started.

- Individually make out a list of solutions before the group meeting. Work quickly to realize a pre-established quota of five to ten solutions. After composing a quick first draft, revise the list for clarity only; make no substantial changes.
- Start the group brainstorming process by having the group review and assemble all the individual solutions. Do this quickly and without criticism. Beginning criticism at this stage will kill the creativity necessary for brainstorming and shut down the more timid (but creative) members of the group.
- Review the list and identify solutions that are identical or overlap. Begin the refining process by combining these solutions.
- Having reviewed all the brainstormed solutions, it is now time to bring in criticism. Begin by eliminating solutions with major ethical problems such as those that violate rights, produce injustices, or cause extensive harm.
- Identify but do not eliminate solutions that are ethical but raise serious practical problems. Do not initially eliminate an ethical solution because there are obstacles standing in the way of its implementation. Be descriptive. Identify and impartially describe the obstacles. Later, in the solution implementation stage, you may be able to design creative responses to these obstacles.
- Identify solutions that do not "fit" your problem statement. These require a decision. You can throw out the solution because it does not solve the problem or you can change the problem. If a solution does not fit the problem but, intuitively, seems good, this is a sign that you need to take another look at your problem statement.
- Don't automatically reject partial solutions. For example, sending memos through email rather than printing them out and wasting paper may not solve the entire recycling problem for your company.

But it represents a good, partial solution that can be combined with other partial solutions to address the bigger problem.

- Through these different measures, you will gradually integrate criticism into your brainstorming process. This will facilitate working toward a manageable, refined list of solutions for testing in the next stage.

### Exercise 3: Develop a Solution List

- Have each member of your team prepare a solution list and bring it to the next group meeting. Set a quota for this individual list, say, 5 to 10 solutions.
- Prepare a group list out of the lists of the individual members. Work to combine similar solutions. Be sure to set aside criticism until the preliminary group list is complete.
- Make use of the following table.
- Refine the group list into a manageable number of solutions for testing in the next stage. Combine overlapping solutions. Eliminate solutions that do not respond to the requirements and the problem statement that you prepared in the previous exercise. Eliminate solutions that violate important ethical considerations, i.e., solutions that violate rights, produce harms, etc.
- Check your refined solution list with your problem statement. If they do not match, eliminate the solution or redefine the problem

#### Refined Brainstorm List

Solution Ranking	Description of Solution	Justification (fits requirements, fits problem)
Best Solution		
Second Best Solution		
Third Best Solution		
Fourth Best Solution		
Fifth Best Solution		

Table 4.6

Anthony Weston provides an illuminating and useful discussion of creative problem solving in the reference provided below.

### 4.1.7 Exercise Three: Solution Testing

In this section, you will test the solutions on the refined list your group produced in the previous exercise. Three ethics tests, described below, will help you to integrate ethical considerations in the problem-solving process. A global feasibility test will help to identify solutions with serious practical problems. Finally, a Solution Evaluation Matrix summarizes the results for class debriefings.

#### Setting up for the test.

- Identify the agent perspective from which the decision will be made
- Describe the action as concisely and clearly as possible.
- Identify the stakeholders surrounding the decision, i.e., those who will suffer strong impacts (positively or negatively) from the implementation of your decision. Stakeholders have a vital or essential interest (right, good, money, etc) in play with this decision.
- In the harm/beneficence test, identify the likely results of the action and sort these into harms and benefits.
- For the reversibility test, identify the stakeholders with whom you will reverse positions.

- For the public identification test, identify the values, virtues, or vices your action embodies. Associate these with the character of the agent.

### Harm/Beneficence Test

1. **What are the harms your solution is likely to produce? What are its benefits? Does this solution produce the least harms and the most benefits when compared to the available alternatives?**
2. **Pitfall—Too much.** In this "Paralysis of Analysis" one factor in too many consequences. To avoid the fallacy restrict the analysis to the most likely consequences with the greatest magnitude (Magnitude indicates the range and severity of impact).
3. **Pitfall—Too Little.** A biased or incomplete analysis results when significant impacts are overlooked. Take time to uncover all the significant impacts, both in terms of likelihood and in terms of magnitude.
4. **Pitfall—Distribution of Impacts.** Consider, not only the overall balance of harms and benefits but also how harms and benefits are distributed among the stakeholders. If they are equally or fairly distributed, then this counts in the solution's favor. If they are unequally or unfairly distributed, then this counts against the solution. Be ready to redesign the solution to distribute better (=more equitably or fairly) the harmful and beneficial results.

### Reversibility Test

1. **Would this solution alternative be acceptable to those who stand to be most affected by it? To answer this question, change places with those who are targeted by the action and ask if from this new perspective whether the action is still acceptable?**
2. **Pitfall—Too much.** When reversing with Hitler, a moral action appears immoral and an immoral action appears moral. The problem here is that the agent who projects into the immoral standpoint loses his or her moral bearings. The reversibility test requires viewing the action from the standpoint of its different targets. But understanding the action from different stakeholder views does not require that one abandon himself or herself to these views.
3. **Pitfall—Too little.** In this pitfall, moral imagination falls short, and the agent fails to view the action from another stakeholder standpoint. The key in the reversibility test is to find the middle ground between too much immersion in the viewpoint of another and too little.
4. **Pitfall—Reducing Reversibility to Harm/Beneficence.** The reversibility test requires that one assess the impacts of the action under consideration on others. But it is more than a simple listing of the consequences of the action. These are viewed from the standpoint of different stakeholders. The reversibility test also goes beyond considering impacts to considering whether the action treats different stakeholders respectfully. This especially holds when the agent disagrees with a stakeholder. In these disagreements, it is important to work out what it means to disagree with another respectfully.
5. **Pitfall—Incomplete survey of stakeholders.** Leaving out significant stakeholder perspectives skews the results of the reversibility test. Building an excellent death chamber works when one considers the action from the standpoint of Hitler; after all, it's what he wants. But treating an individual with respect does not require capitulating to his or her desires, especially when these are immoral. And considering the action from the standpoint of other stakeholders (say the possible victims of newer, more efficient gas chambers) brings out new and radically different information.
6. **Pitfall—Not Weighing and Balancing Stakeholder Positions.** This pitfall is continuous with the previous one. Different stakeholders have different interests and view events from unique perspectives. The reversibility test requires reviewing these interests and perspectives, weighing them against one another, and balancing out their differences and conflicts in an overall, global assessment.

### Publicity (or Public Identification) Test

1. **Would you want to be publicly associated or identified with this action? In other words, assume that you will be judged as a person by others in terms of the moral values**

expressed in the action under consideration. Does this accord with how you would want to or aspire to be judged?

2. **Pitfall—Failure to association action with character of agent.** In the publicity test, the spotlight of analysis moves from the action to the agent. Successfully carrying out this test requires identifying the agent, describing the action, and associating the agent with the action. The moral qualities exhibited in the action are seen as expressing the moral character of the agent. The publicity test, thus, rests on the idea that an agent's responsible actions arise from and express his or her character.
3. **Pitfall—Failure to appreciate the moral color of the action.** The publicity test assumes that actions are colored by the ends or goods they pursue. This means that actions are morally colored. They can express responsibility or irresponsibility, courage or cowardice, reasonableness or unreasonableness, honesty or dishonesty, integrity or corruption, loyalty or betrayal, and so forth. An analysis can go astray by failing to bring out the moral quality (or qualities) that an action expresses.
4. **Pitfall—Reducing Publicity to Harm/Beneficence Test.** Instead of asking what the action says about the agent, many reduce this test to considering the consequences of publicizing the action. So one might argue that an action is wrong because it damages the reputation of the agent or some other stakeholder. But this doesn't go deep enough. The publicity test requires, not that one calculate the consequences of wide-spread knowledge of the action under consideration, but that one draws from the action the information it reveals about the character of the agent. The consequences of bad publicity are covered by the harm/beneficence test and do not need to be repeated in the public identification test. The publicity test provides new information by turning from the action to the agent. It focuses on what the action (its moral qualities and the goods it seeks) says about the agent.

### Comparing the Test Results: Meta-Tests

1. The ethics tests will not always converge on the same solution because each test (and the ethical theories it encapsulates) covers a different dimension of the action: (1) harm/beneficence looks at the outcomes or consequences of the action, (2) reversibility focuses on the formal characteristics of the action, and (3) publicity zeros in on the moral character of the agent.
2. The meta-tests turn this surface disagreement into an advantage. The convergence or divergence between the ethics tests become indicators of solution strength and weakness.
3. **Convergence.** When the ethics tests converge on a given solution, this indicates solution strength and robustness.
4. **Divergence.** When tests diverge on a solution—a solution does well under one test but poorly under another—this signifies that it needs further development and revision. Test divergence is not a sign that one test is relevant while the others are not. Divergence indicates solution weakness and is a call to modify the solution to make it stronger.

### Exercise 3: Summarize your results in a Solution Evaluation Matrix

1. Place test results in the appropriate cell.
2. Add a verbal explanation to the SEM table.
3. Conclude with a global feasibility test that asks, simply, whether or not there exist significant obstacles to the implementation of the solution in the real world.
4. Finish by looking at how the tests converge on a given solution. Convergence indicates solution strength; divergence signals solution weakness.

### Solution Evaluation Matrix

Solution/Test	Harm/Beneficence	Reversibility	Publicity (public identification)	Feasibility
First Solution				
Second Solution				
Third Solution				
Fourth Solution				
Fifth Solution				

Table 4.7

The ethics tests are discussed in Cruz and Davis. See references below. Wike and Brincat also discuss value based approaches in the two references below.

#### 4.1.8 Exercise Four: Solution Implementation

In this section, you will trouble-shoot the solution implementation process by uncovering and defusing potential obstacles. These can be identified by looking at the constraints that border the action. Although constraints specify limits to what can be realized in a given situation, they are more flexible than generally thought. Promptly identifying these constraints allows for proactive planning that can push back obstacles to solution implementation and allow for realization of at least some of the value embodied in the solution.

A **Feasibility Test** focuses on these situational constraints and poses useful questions early on in the implementation process. What conditions could arise that would hinder the implementation of a solution? Should the solution be modified to ease implementation under these constraints? Can the constraints be removed or modified through activities such as negotiation, compromise, or education? Can solution implementation be facilitated by modifying both the solution and the constraints?

#### Feasibility Constraints

Category	Sub-Category		
Resource	Money/Cost	Time/Deadlines	Materials
Interest	Organizational(Supervisor)	Legal (laws, regulations)	Political/Social
Technical	Technology does not exist	Technology patented	Technology needs modification

Table 4.8

#### Resource Constraints:

- **Does the situation pose limits on resources that could limit the realization of the solution under consideration?**
- **Time.** Is there a deadline within which the solution has to be enacted? Is this deadline fixed or negotiable?
- **Financial.** Are there cost constraints on implementing the ethical solution? Can these be extended by raising more funds? Can they be extended by cutting existing costs? Can agents negotiate for more money for implementation?

- **Resource.** Are necessary resources available? Is it necessary to plan ahead to identify and procure resources? If key resources are not available, is it possible to substitute other, more available resources? Would any significant moral or non-moral value be lost in this substitution?

#### Interest Constraints

- **Does the solution threaten stakeholder interests? Could it be perceived as so threatening to a stakeholder's interests that the stakeholder would oppose its implementation?**
- **Individual Interests.** Does the solution threaten the interests of supervisors? Would they take measures to block its realization? For example, a supervisor might perceive the solution as undermining his or her authority. Or, conflicting sub-group interests could generate opposition to the implementation of the solution even though it would promote broader organizational objectives.
- **Organizational Interests.** Does the solution go against an organization's SOPs (standard operating procedures), formal objectives, or informal objectives? Could acting on this solution disrupt organization power structures? (Perhaps it is necessary to enlist the support of an individual higher up in the organizational hierarchy in order to realize a solution that threatens a supervisor or a powerful sub-group.)
- **Legal Interests.** Are there laws, statutes, regulations, or common law traditions that oppose the implementation of the solution? Is it necessary to write an impact statement, develop a legal compliance plan, or receive regulatory approval in order to implement the solution?
- **Political/Social/Historical Constraints.** Would the solution threaten or appear to threaten the status of a political party? Could it generate social opposition by threatening or appearing to threaten the interests of a public action group such as an environmental group? Are there historical traditions that conflict with the values embedded in the solution?

#### Technical Constraints

- **Technology does not yet exist.** Would the implementation of the solution require breaking new technological ground?
- **Technology Protected by Patent.** The technology exists but is inaccessible because it is still under a patent held by a competitor.
- **Technology Requires Modification.** The technology required to implement solution exists but needs to be modified to fit the context of the solution. Important considerations to factor in would be the extent of the modification, its cost, and how long it would take to bring about the modification.

### 4.1.9 Exercise Five: Ethical Perspective Pieces

#### Getting Consent to Information Transfer

**Customer Consent** If you have followed the case so far, you see that while the money Toysmart owes to Citibank may just be a drop in the bucket, the welfare and even survival of other Toysmart creditors depends on how much money can be retrieved through the bankruptcy process. The following Ethical Perspective argues that the right of creditors for their money cannot be traded off with the right to privacy of Toysmart customers profiled in their now valuable data base. These two stakeholders and their stakes—in this case rights—need to be integrated as fully as possible. The key lies in the execution of the consumer right to be informed and to freely consent to the transfer of their data to third parties. This right's execution must address three important aspects.

- Customer consent must be obtained by having them opt-in rather than opt-out of the transfer of PII. Opt-in represents a more active, opt-out a more passive mode of consent. By opting into the data transfer, Toysmart customers consent explicitly, knowingly, and freely to the transfer of their information. Opt-out is passive because unless customers expressly forbid it, the transfer of their PII to a third party will occur. The chances are that many customers will consent only if compensated.



And the mechanics of obtaining positive opt-in consent are complicated. Is this done by email or snail mail? How can Toysmart customers be fully informed? What kind of timeline is necessary for their full consent? Implimentation of opt-in consent is more adequate morally speaking but much more difficult, time-consuming, and costly in its implementation.

- Any exchange of information must be in accord with TRUSTe standards which Toysmart agreed to when they solicited the right to use the TRUSTe seal. TRUSTe has its own standards (they can be found through the link above) which reinforce the above discussion of informed consent but also bring in other matters. Important here is the utilitarian concern of building and maintaining consumer trust to encourage their using the Internet for e-business. Web site certification agencies like TRUSTe exist to validate that a web site is trustworthy; but to maintain this validation, customers must know that TRUSTe will enforce its standards when websites become reluctant to follow them. TRUSTe must be aggressive and strict here in order to maintain the high level of trust they have generated with e-business customers.
- An important part of TRUSTe standards on the transfer of PII to third parties is their insistence that these third parties share the values of those who have been given the information. Toysmart cultivated a reputation as a trustworthy company devoted to producing safe, high quality, educational toys. The customer data base should be transferred only to concerns that share these goals and the accompanying values. (What are these?) Did Toysmart compromise on these goals and values when they agreed to accept Disney financing and advertising support? What are Toysmart values? What are Disney values?

In conclusion, this perspective piece is designed to get you to think about the right of informed consent, whether it can be reconciled with financial interests and rights of Toysmart creditors, and how this right can be implemented in the concrete details of this case. It has argued that customer PII can be transferred but only with the consent of the customers themselves. It has defined this consent in terms of express opting-into the transfer on the part of the customers. It has also argued that the third part must share the values and goals of Toysmart, especially those values accompanying Toysmart promises to customers.

#### 4.1.10 Group Exercise

**Identify the role played and the values held by each of the following participants:**

1. David Lord (CEO of Toysmart)
2. Disney (as venture capitalist)
3. TRUSTe (as non-profit)
4. Toysmart Creditors (Pan Communications)
5. FTC (government regulatory agency)
6. Toysmart Customers

#### **Toysmart's customer data base**

1. Should Toysmart creditors be allowed to sell the customer data base to third parties? Respond to arguments pro and con given by participants in the case.
2. Assume Toysmart should be allowed to sell the data base to their third party. What kind of values should this third party have?
3. Assume Toysmart has to get customer consent before selling the data base. How should customer consent be obtained? (What counts as customer consent?)

#### 4.1.11 What did you learn?

This section provides closure to the module for students. It may consist of a formal conclusion that summarizes the module and outlines its learning objectives. It could provide questions to help students debrief

and reflect on what they have learned. Assessment forms (e.g., the “Muddiest Point” Form) could be used to evaluate the quality of the learning experience. In short, this section specifies the strategy for bringing the module to a close.

**In this module, you have...**

- studied a real world case that raised serious problems with intellectual property, privacy, security, and free speech. Working with these problems has helped you to develop a better “working” understanding of these key concepts,
- studied and practiced using four decision-making frameworks: (1) using socio-technical analysis to specify the problem in a complex, real world case, (2) practiced brainstorming techniques to develop and refine solutions that respond to your problem, (3) employed three ethics tests to integrate ethical considerations into your solutions and to test these solutions in terms of their ethics, and (4) applied a feasibility analysis to your solutions to identify and trouble-shoot obstacles to the implementation of your ethical solution,
- explored the analogy between solving ethical and design problems,
- practiced the skills of moral imagination, moral creativity, reasonableness, and perseverance, and...
- experienced, through key participant perspectives, the challenges of ethics advocacy “under the gun.”

**Debrief on your group work before the rest of the class**

1. Provide a concise statement and justification of the problem your group specified
2. Present the refined solution generation list your group developed in exercise 2.
3. Present and provide a quick summary explanation of the results of your group’s solution evaluation matrix.
4. Show your group’s feasibility matrix and summarize your assessment of the feasibility of implementing the solution alternatives you tested in exercise three.

**Group Debriefing**

1. Were there any problem you group had working together to carry out this case analysis? What were the problems and how did you go about solving them?
2. What problems did you have with understanding and practicing the four frameworks for solving problems? How did you go about solving these problems? Does your group have any outstanding questions or doubts?
3. Now that you have heard the other groups present their results, what differences emerged between your group’s analysis and those of the other groups? Have you modified your analysis in light of the analyses of the other groups? If so how? Do the other groups need to take into account any aspects of your group’s debriefing?

#### 4.1.12 Toysmart Presentations

[MEDIA OBJECT]<sup>2</sup>

[MEDIA OBJECT]<sup>3</sup>

**Updated concept presentation for Spring 2011**

[MEDIA OBJECT]<sup>4</sup>

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<sup>2</sup>This media object is a downloadable file. Please view or download it at  
<Toysmart\_2.pptx>

<sup>3</sup>This media object is a downloadable file. Please view or download it at  
<Toysmart\_3.pptx>

<sup>4</sup>This media object is a downloadable file. Please view or download it at  
<Review on Privacy and Property.pptx>

## Privacy, Intellectual Property, Free and Informed Consent

[MEDIA OBJECT]<sup>5</sup>

[MEDIA OBJECT]<sup>6</sup>

### 4.1.13 Appendix

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This optional section contains additional or supplementary information related to this module. It could include: assessment, background such as supporting ethical theories and frameworks, technical information, discipline specific information, and references or links.

#### References

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2. Cruz, J. A., Frey, W. J. (2003) An Effective Strategy for Integration Ethics Across the Curriculum in Engineering: An ABET 2000 Challenge, **Science and Engineering Ethics**, 9(4): 543-568.

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<sup>5</sup>This media object is a downloadable file. Please view or download it at  
<Review on Privacy Property Consent.pptx>

<sup>6</sup>This media object is a downloadable file. Please view or download it at  
<IMC\_V2\_97.doc>

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#### 4.1.14 EAC ToolKit Project

**4.1.14.1 This module is a WORK-IN-PROGRESS; the author(s) may update the content as needed. Others are welcome to use this module or create a new derived module. You can COLLABORATE to improve this module by providing suggestions and/or feedback on your experiences with this module.**

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**4.1.14.2 Funded by the National Science Foundation: "Collaborative Development of Ethics Across the Curriculum Resources and Sharing of Best Practices," NSF-SES-0551779**

## 4.2 Biomatrix Case Exercises - Student Module<sup>8</sup>

HOW TO EDIT: Write your module for a student audience. To complete or edit the sections below erase the provided textual commentaries then add your own content using one or more of the following strategies: **Guide to Links**

- Electronic Privacy Information Center provides updated information on online privacy issues
- The linked Amicus Curiae provides insight into how John Doe Lawsuits can be used to suppress legitimate speech
- Computing cases link provides supporting information on socio-technical systems
- David van Mill's article, "Freedom of Speech" in the Stanford Encyclopedia of Philosophy nicely summarizes J.S. Mill's defense of free speech and Feinberg's "Offense Principle."

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### Word Version of this Template

This media object is a downloadable file. Please view or download it at  
< EAC TK STD TEMPLATE.doc>

**Figure 4.4:** This is an example of an embedded link. (Go to "Files" tab to delete this file and replace it with your own files.)

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## 4.2.1 Introduction

In this module you will study a real world ethical problem, the Biomatrix case, and employ frameworks based on the software development cycle to (1) specify ethical and social problems, (2) generate solutions that integrate ethical value, (3) test these solutions, and (4) implement them over situation-based constraints. This module will provide you with an opportunity to practice integrating ethical considerations into real world decision-making and problem-solving in business and computing. This whole approach is based on an analogy between ethics and design (Whitbeck).

Large real world cases like Biomatrix pivot around crucial decision points. You will take on the role of one of the participants and problem-solve in teams from three such points. Problem-solving in the real world requires perseverance, moral creativity, moral imagination, and reasonableness. These skills are developed through practice. Designing and implementing solutions requires identifying conflicting values and interests, balancing them in creative and dynamic solutions, overcoming technical limits, and responding creatively to real world constraints.

Each decision point requires that you take up the position of a participant and work with the frameworks from this standpoint. You may be tempted to back out and adopt an evaluative posture from which to **judge** the participants. Resist this temptation. This module is specifically designed to give you practice in making real world decisions. These skills emerge when you role-play from a standpoint **within** within the case. You will learn that decision-making requires understanding your situation and taking responsibility for it.

Cases such as Biomatrix are challenging because of the large amount of information gathering and sorting they require. Moral imagination responds to this challenge by providing different framings that help to filter out irrelevant data and structure what remains. Framing plays a central role in problem specification. For example, Biomatrix could be framed as the need to develop quick and decisive responses to cyber-smear. Or it could be framed legally as employing legal tools (John Doe sues to pierce anonymity) that set a dangerous precedent against free speech. Yet again, it could be framed as a cautionary tale on the dangers of thinking that you are anonymous when you speak online. What is important at this stage is that you and your group experiment with multiple framings of the case. This will open up new horizons of solution possibilities not available under just one framing.

Tackling large cases in small teams also helps develop the communication and collaboration skills that are required for group work. Take time to develop strategies for dividing the work load among your team members. The trick is to distribute equally but, at the same time, to assign tasks according the different abilities of your team members. Some individuals are better at research while others excel in interviewing or writing. Also, make sure to set aside time when you finish for integrating your work with that of your teammates. Start by quickly reviewing the information available on the case. This is called “scoping the case.” Then formulate specific questions to focus further research on information relevant to your problem solving efforts. This includes information pertinent to constructing a socio-technical analysis, identifying key “embedded” ethical issues, and uncovering existing best and worst practices.

A case narrative, STS (socio-technical system) description, and two ethical reflections have been published at <http://computingcases.org>. This module also links to websites on free speech and privacy law, advice to corporate officials on how to respond to cyber-smear, and information useful in understanding the products manufactured by Biomatrix.

### 4.2.2 Case Narrative and Supporting Documents

#### **Biomatrix Abstract**

Biomatrix manufactures a medical product called Synvisc, a lubricant injected into the knee to take the place of natural lubricants that disappear with age. Synvisc was developed in the late 1990s to help patients suffering osteoarthritis, a condition that leads to immobility in the knee caused by the disappearance of natural lubricating fluids and the deterioration of the cartilage that cushions the knee's movement. As individuals age the natural chemical lubricants in the knee lose their elasticity. Synvisc is designed to slow this process. Manufactured from the comb of roosters, it mimics the chemical structure and properties of the knee's natural lubricants. Injected into the knee in a treatment called visco supplementation, it provides patients with immediate though temporary relief from osteoarthritis. In many cases it has helped postpone difficult and painful knee surgery.

#### **Cybersmear**

- From April 1999 to August 2000, three individuals posted over 16,000 messages critical of Biomatrix in a financial discussion forum provided by Yahoo. Using 23 pseudonyms, they made several unsubstantiated claims:
- that Synvisc produces harmful side effects
- that Biomatrix covered up negative financial and product information
- that Biomatrix and its corporate officials had connections to the Mafia
- that the publicly announced friendly merger between Biomatrix and Genzyme was a ruse and would never take place
- that the CEO of Biomatrix was under investigation by famous Nazi hunter, Simon Wiesenthal, for crimes committed in Germany during the second world war
- that a top level Biomatrix corporate officer routinely sexually harassed employees

#### **The Outcome**

All of these claims were successfully refuted during legal proceedings initiated by Biomatrix. Yet this false information may have had a negative impact on the financial well being of the company. During the period in which the messages appeared in Yahoo, Biomatrix stock dropped from 35 to 21 dollars per share. Other factors may have contributed to this loss. (Biomatrix mentions difficulties with FDA regulations and protecting its patents in its report to the Security Exchange Commission.) But Biomatrix took direct legal action to stop the flow of negative information, find those responsible, and seek compensatory and punitive damages. They initiated a John Doe lawsuit that asked the court to subpoena Yahoo to identify the authors of the defamatory messages. Yahoo complied revealing two former Biomatrix employees, Raymond Costanzo and Ephraim Morris. A third participant, Richard Costanzo who was Raymond's twin brother, was also identified. These three, who called themselves the BXM Police, failed to substantiate the claims they made in their 16,000 messages. Biomatrix legal counsel petitioned the court for summary judgment. On August 2, 2000, the court found Costanzo, Costanzo, and Morris guilty of defamation.

### 4.2.3 Biomatrix Chronology

#### **Biomatrix Chronology**

Date	Event	Actors
April 1999 through August 2000	Posting of anti-Biomatrix messages	Richard Costanzo, Raymond Costanzo, Ephraim Morris
April 1999 to July 2000	Biomatrix Shares drop from 35 to 21	Caused by BXM Police?
March 2000	Announcement of Genzyme's intention to buy Biomatrix for \$245,000,000	Biomatrix and Genzyme Top Management
June/July 2000	Initiation of John Doe Lawsuit	Plaintiffs: Biomatrix, Balazs, and Denlinger
July 2000	Court subpoenas Yahoo for identities of message posters (BXM Police)	Plaintiffs: Biomatrix, Balazs, and Denlinger
August 3, 2000	Summary Judgment against Raymond Costanzo, Richard Costanzo, and Ephraim Morris	Plaintiffs: Biomatrix, Balazs, and Denlinger
November 7, 2000	SEC approval of Genzyme plan to purchase Biomatrix	Genzyme and Biomatrix Top Management plus SEC
November 7, 2000	Biomatrix stock rises from \$19 to \$19.94	
January 3, 2001	Yahoo alters bulletin board policies	

**Table 4.9:** Case events from April 1999 to January 2001

### Materials used in compilation of case summary and chronology

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5. Biomatrix, INC., Janet L. Denlinger and Endre A. Balazs vs. John Does I-VIII inclusive. John Doe proceedings against Biomatrix defamers to persuade court to subpoena Yahoo.
6. Biomatrix, INC. Janet L. Denlinger and Endre A. Balazs, Plaintiffs, vs. Raymond V. Constanzo, Richard Constanzo, Ephraim Morris, Defendants. "Brief in support of motion for partial summary judgment as to defamation against defendants. Provides legal arguments of defamatory materials, evidence of harms done, and responses of BXM Police under question.

### Short Selling

- One of the motives behind the defamatory posting may have been short selling. The following is an explanation of how it works from Zlotnick v. Tie Communications, 86 F.2nd 818-820 (3rd Cir. 1988):

- Where the traditional investor seeks to profit by trading a stock the value of which he expects to rise, the short seller seeks to profit by trading stocks which he expects to decline in value. . . . Short selling is accomplished by selling stock which the investor does not yet own; normally this is done by borrowing shares from a broker at an agreed upon fee or rate of interest. At this point, the investor's commitment to the buyer of the stock is complete; the buyer has his shares and the short seller his purchase price. The short seller is obligated, however, to buy an equivalent number of shares in order to return the borrowed shares. In theory, the short seller makes this covering purchase using the funds he received from selling the borrowed stock. Herein lies the short seller's potential for profit: if the price of the stock declines after the short sale, he does not need all the funds to make his covering purchase; the short seller then pockets the difference. On the other hand, there is no limit to the short seller's potential loss: if the price of the stock rises, so too does the short seller's loss, and since there is no cap to the stock's price, there is no limitation on the short seller's risk. There is no time limit on this obligation to cover.

#### Short Selling: Step by Step

- Consider how investor Z can profit from 100 shares of stock X that he borrows from broker A:
- 1. Z borrows 100 shares of X from A at a certain time, T1 (say Monday, October 11, 2004). X is worth \$10 a share at this time so 100 shares of X are worth \$1000.
- 2. Z immediately sells these 100 borrowed shares of X at its market value of \$10 per share or \$1000. This still occurs within time frame, T1.
- 3. Z opens an account with Yahoo and starts spreading false rumors about the financial health of X on Yahoo's financial bulletin board. He uses several usernames, copies the same message over and over, and creates the illusion that X is going down the tubes:
- **By c\_smear/c1\_smear/c\_smearr/etc. All people who run corporation X are lying thieves OUT TO STEAL YOUR MONEY. They also DRESS FUNNY too. So SHUN THEM LIKE THE PLAGUE! SELL YOUR STOCK, even if you have to take a loss.**
- 4. Through cyber smear, Z lowers the price of X to \$9 a share.
- 5. Z then buys back 100 shares of X at T2 at its new value of \$9 a share for a total of \$900.
- 6. Z gives back the 100 shares of X that he borrowed to dealer A.
- 7. Z pockets the difference between the value of 100 shares of X at T1 (\$1000) and its reduced value at T2 (\$900). He has just made \$100 by short selling stock.
- 8. But there are two small problems. First, the ISP (Yahoo) used by Z is required to reveal his IP address if it receives a subpoena from the court. Second, defamation, specifically libel, is illegal.

#### 4.2.4 Slander = Whistle Blowing by Meddra 2k

The following is a BXM posting on Yahoo's Finance Bulletin Board. It was posted 4/11/00 and accessed 8/10/2000.

- BMX Police as Whistle-Blowers. The Biomatrix Police presented themselves as social crusaders out to prevent Biomatrix from harming innocent investors. They claimed that Biomatrix would try to undermine their claims by accusing them of slander whereas in truth they (the BMX Police) were altruistically motivated individuals blowing the whistle on internal corporate wrongdoing. In the following, meddra\_2k argues that what Biomatrix officials call slander is really whistle-blowing, i.e., the public revelation of true information designed to avoid a public harm:
- **SLANDER = WHISTLE BLOWING**
- By meddra\_2k
- It all depends which side of the fence you're on. The "pusher" sees the negative information, factual as it may be, as "slander" because they feel that anything that might make stock go down is inherently wrong. Thus, they call it "slander". The BMX Police know that the TRUTH, as unpleasant as it may be, is NEVER wrong. Indeed, it is our CIVIC DUTY to expose the TRUTH about Biomatrix, its products, and its stock. Thus, we call it "whistle blowing."



- The readers of this board are free to evaluate both sides, and their motives for posting, and decide what they wish to do. Some will learn that this is a SCAM company peddling a SCAM product and run for the door.
- Others may not mind that it's a SCAM company peddling a SCAM product as long as the stock price goes up. Certainly, there are enough unethical people out there that won't mind investing in a SCAM that hurts people as long as they profit from it.
- This message board is FILLED with such people. Fortunately, it also has a few do-gooders that help balance the EVIL that men do.

## 4.2.5 What you need to know . . .

### 4.2.5.1 What you need to know about socio-technical systems

**1. STS have seven broad components: hardware, software, physical surroundings, people/groups/roles, procedures, laws, and data/data structures.**

**2. Socio-technical systems embody values**

- These include moral values like safety, privacy, property, free speech, equity and access, and security. Non-moral values can also be realized in and through Socio Technical Systems such as efficiency, cost-effectiveness, control, sustainability, reliability, and stability.
- Moral values present in Socio Technical Systems can conflict with other embedded moral values; for example, privacy often conflicts with free speech. Non-moral values can conflict with moral values; developing a safe system requires time and money. And, non-moral values can conflict; reliability undermines efficiency and cost effectiveness. This leads to three problems that come from different value conflicts within Socio Technical Systems and between these systems and the technologies that are being integrated into them.
- Mismatches often arise between the values embedded in technologies and the Socio Technical Systems into which they are being integrated. As UNIX was integrated into the University of California Academic Computing STS (see Machado case at Computing Cases), the values of openness and transparency designed into UNIX clashed with the needs of students in the Academic Computing STS at UCI for privacy.
- Technologies being integrated into Socio Technical Systems can magnify, exaggerate, or exacerbate existing value mismatches in the STS. The use of P2P software combined with the ease of digital copying has magnified existing conflicts concerning music and picture copyrights.
- Integrating technologies into STSs produces both immediate and remote consequences and impacts.

**3. Socio-technical systems change**

- These changes are bought about, in part, by the value mismatches described above. At other times, they result from competing needs and interests brought forth by different stakeholders. For example, bicycle designs, the configuration of typewriter keys, and the design and uses of cellular phones have changed as different users have adapted these technologies to their special requirements.
- These changes also exhibit what sociologists call a "trajectory", that is, a path of development. Trajectories themselves are subject to normative analysis. For example, some STSs and the technologies integrated into them display a line of development where the STS and the integrated technology are changed and redesigned to support certain social interests. The informing capacities of computing systems, for example, provide information which can be used to improve a manufacturing processes can or to monitor workers for enhancing management power. (See Shoshanna Zuboff, **The Age of the Smart Machine**)
- Trajectories, thus, outline the development of STSs and technologies as these are influenced by internal and external social forces.

In this section, you will learn about this module's exercises. The required links above provide information on the frameworks used in each section. For example, the Socio-Technical System module provides background information on socio-technical analysis. The "Three Frameworks" module provides a further description of the ethics tests, their pitfalls, and the feasibility test. These exercises will provide step by step instructions on how to work through the decision points presented above.

**For more information see Huff and Jawer below.**

**Decision Point One:**

You are the publicist for the company Biomatrix, a manufacturer of biotechnology products including Synvisc, a promising treatment for osteoarthritis. The CEO, Endre Balazs, and Vice President, Janet Denlinger, come to you. It seems that they are quite upset. Biomatrix and its top level employees have become the victims of cyber-smear. Dozens of messages have appeared in the highly visible Yahoo Financial Bulletin Board that make the following unsubstantiated accusations:

- Synvisc (a product manufactured by Biomatrix) produces seriously harmful side effects
- Biomatrix has deceived its stockholders by suppressing negative financial and product information
- Biomatrix and its employees have connections to the mafia
- Company public releases that the merger between Biomatrix and Genzyme is friendly are false. In fact, the messages allege that the merger will never take place because of Biomatrix's terrible financial profile
- Biomatrix CEO is under investigation by famous Nazi hunter, Simon Wiesenthal, for crimes he allegedly committed in Germany during the Second World War
- Biomatrix Vice President requires sexual favors from employees under her supervision as a condition for promotion

None of these charges is true. But Balazs and Denlinger are devastated by the personal attacks made upon them. Biomatrix also stands to lose a great deal from the negative publicity. Allegations of side effects from using Synvisc, a promising new produce patented by the company, threaten to drive the product out of the market. The recently announced friendly merger between Biomatrix and Genzyme has produced modest gains in stock prices but the cyber slanderers seem determined to drive Biomatrix stock value down.

**You have been charged by Balazs and Denlinger, as publicist, with designing a rapid and effective campaign against this cyber-smear. Several issues have arisen that demand your immediate attention:**

1. The identity of the cyber-slanderers is unknown. What can you do, if anything, to find out who these individuals are?
2. One of the slanderers claims to have worked for Biomatrix in the past. He/she uses this to lend credence to the attacks made on the company and its managers. If true, is there anything that can be done to prevent future employees from resorting to slander as a way of retaliating against the company?
3. If the real identities of the individuals posting the Yahoo messages are revealed, should they be sued? What are the advantages of defamation lawsuits if those sued do not have the financial resources to compensate the victim for damages suffered?
4. Should the cyber-slanderers be attacked? If so, how? How, in general, should corporations and their managers respond to cyber-slander? By publicly refuting the messages? By ignoring these attacks? By ignoring them until they produce clear damage? Or by responding quickly and proactively before they produce damage?

**Decision Point Two: Defending Against Defamation:**

The cat is out of the bag. The BXM Police, those self-styled whistle-blowers against the corporate greed of Biomatrix, have been revealed as Richard and Raymond Costanzo and Ephraim Morris. (Richard Costanzo and Ephraim Morris were former Biomatrix employees.) These are the real world names behind the 23 pseudonyms under which 16,000 anti-Biomatrix emails were posted on the Financial Bulletin Board of Yahoo between April 1999 and August 2000. These messages accused Biomatrix managers of sexual harassment and Nazi war crimes and Biomatrix of corporate greed.

**Biomatrix managers feel that the company has a problem if its former employees find the motivation to behave in this manner. You are a human resource official in the Biomatrix and it has fallen on you to design a strategy and program to prevent a reoccurrence of this cyber-smear disaster. What should you do?**

- Bring a defamatory lawsuit against the three? Would this help to recoup damages? What other benefits could a successful defamation lawsuit bring? What would be the downside of such an action?
- Alter the way in which employees are let go. (In other words develop procedures for firing or laying off employees that would defuse the desire to get even.) What could be done to sever a relation with an employee in as good a fashion as possible?
- What steps could be taken to reduce the possibility of a former employee taking a “short selling” strategy? For example, could steps be taken to restrict the ways in which former employees use the confidential information they have about the company? Could risk identification measures be taken to uncover those who could or are benefiting from short selling a company’s stock?
- Could Human Resources develop an effective program to counter cyber smear by effective communication of true and accurate information? How can a good reputation be established that could serve as a basis for counter-acting defamation?
- In short, design a strategy for Biomatrix that could minimize the risk of future cyber-smear attacks and/or minimize the impact of these attacks. Defend your strategy in the Ethics Bowl debate.

### **Decision Point Three: How far does free speech go?**

You work with a public service organization devoted to the defense of free speech, both off and online. For this reason you immediately noticed a newspaper story that three individuals, Richard Costanzo, Raymond Costanzo, and Ephraim Morris, were found guilty in a summary judgment of defamation. It seems they published, under 23 pseudonyms, some 16,000 messages that made negative claims against Biomatrix and its managers that they were unable to substantiate.

**The claims made by these individuals in their emails were pretty strong:**

- Biomatrix’s most popular product, Synvisc, has produced significant harmful side effects and the company has taken wrongful measures to suppress this information. Synvisc is a manufactured substance that resembles the natural fluids that lubricate knee movements. These fluids disappear with age producing a condition called osteoarthritis. Synvisc has been presented as a highly promising treatment for this problem.
- They also accuse Biomatrix of covering up that fact that they are targets of potentially damaging lawsuits.
- These three individuals, who style themselves the BXM Police, also accuse the company of covering up negative, harmful information about their upcoming merger with Genzyme. The messages claim that inside information reveals that the merger will never take place.
- The BXM police also accuse Biomatrix top management of having committed war crimes and acts of sexual harassment.

During pre-trial depositions, the accused were unable to substantiate any of these claims. While the motives for posting these messages have never been made clear three stand out: revenge, short selling, and the perception that rules of defamation did not apply in cyber space. You have been asked by your organization to contact the BXM Police and propose that they appeal this decision. You and your organization think that there are strong legal and ethical arguments, based on the right to free speech, that need to be put forth in this case. Your job in this decision point is to set forth these legal and moral arguments. In other words, construct a comprehensive defense for the BXM Police.

### **Important Considerations**

- EPIC (Electric Privacy Information Center) and the ACLU (American Civil Liberties Union) present an amici curiae (friend of the court brief) outlining their concerns about the use of John Doe lawsuits to pierce online anonymity. This brief is summarized in the Biomatrix case materials.

- Perhaps the strongest case for Free Speech is made by John Stuart Mill in *On Liberty*. Consult this book and find his argument in the first chapter. The summary of this argument in the Biomatrix case materials will help. Do defamation lawsuits suppress free speech. Why does Mill think that it is wrong to suppress even completely false speech?
- Did Biomatrix and its management team suffer damages as a result of the Yahoo messages? What is this damage? What evidence proves that the damage was caused by the negative speech and not something else? Who bore the burden of proof in the summary judgment against the BXM Police?
- What is the strongest argument that Biomatrix made against the speech of the BXM three? How can you and organization counter this argument?
- The strongest argument the BXM Police offer for their actions is that they are not bound by rules of veracity and defamation while operating pseudonymously online. Should we be held responsible for what we say online? In the same way that we are held responsible off line? Doesn't Yahoo's disclaimer to readers that they should not assume that what they read is true suffice to exculpate those who post false speech?
- It has been suggested that the BXM Police were motivated by greed. Their speech was designed to lower the price of Biomatrix stock so they could profit from short selling it. Does this change your defense? There is also inconclusive evidence that they were not acting alone? Does this change your defense?

#### 4.2.6 What you will do ...

In this section, you will learn about this module's exercises. The required links above provide information on the frameworks used in each section. For example, the Socio-Technical System module provides background information on socio-technical analysis. The "Three Frameworks" module provides a further description of the ethics tests, their pitfalls, and the feasibility test. These exercises will provide step by step instructions on how to work through the decision points presented above.

#### 4.2.7 Exercise One: Problem Specification

In this exercise, you will specify the problem using socio-technical analysis. The STS section of the Biomatrix Case narrative (found at Computing Cases) provides a good starting point. In the first table, enter the information from the Biomatrix case materials pertinent to the general components of a STS, its hardware, software, physical surroundings, people/groups/roles, procedures, laws, data. Some examples taken from the STS description at Computing Cases are provided to get you started. Then, using the second table, identify the values that are embedded in the different components of the STS. For example, PICS (platforms for internet content selection) embody the values of security and privacy. Finally, using the data from your socio-technical analysis, formulate a concise problem statement.

##### Exercise 1a:

Read the socio-technical system analysis of the Biomatrix case at <http://computingcases.org>. Fill in the table below with elements from this analysis that pertain to your decision point.

**Socio-Technical System Table**

Hardware	Software	Physical Surroundings	People/Groups/Roles	Procedures	Laws, Codes, Regulations	Data and Data Structures
<i>continued on next page</i>						

Plant manufacturing Synvisc	Yahoo software	cyber vs real space	Biomatrix, Genzyme, Yahoo	Getting a Yahoo account	John Doe Lawsuits	OSP user in- formation
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**Table 4.10****Instructions for Table 1:**

1. Go to <http://computingcases.org> and review the STS description provided for the Biomatrix case.
2. Pull out the elements of the STS description that are relevant to your decision point. List them under the appropriate STS component in the above table.
3. Think about possible ways in which these components of the Biomatrix STS interact. For example, what kinds of legal restrictions govern the way data is collected, stored, and disseminated?
4. Develop your STS table with an eye to documenting possible ethical conflicts that can arise and are relevant to your decision point.

**Exercise 1b**

Examine the values embedded in the STS surrounding this decision point. Locate your values under the appropriate component in the Biomatrix STS. For example, according to the STS description for Biomatrix found at Computing Cases, the Yahoo software that structures the architecture of the bulletin boards embody certain values like free speech. Should this be changed given the threat of defamation? What are Yahoo responsibilities in the context of defamation?

**Value Table**

Hardware	Software	Physical Surroundings	People/Groups/Institutions	Procedures	Laws/Codes/Regulations	Data Structures
Security						
Privacy						
Property						
Justice (Equity/Access)						
Free Speech						

**Table 4.11****Instructions for Table 2:**

1. This module links to another Connexions module, Socio-Technical Systems in Professional Decision-Making. There you will find short profiles of the values listed in the above table: security, privacy, property, justice, and free speech. These profiles will help you to characterize the values listed in the above table.
2. Look for value conflicts or mismatches. For example, free speech in the Yahoo discussion space could conflict with laws that protect against defamation. How are these laws transferred online?
3. Identify those components of the Biomatrix STS that embody or embed value. For example, list the values realized and frustrated by the software components discussed in the Biomatrix case in the STS description.
4. Look for ways in which different elements of the STS that embed value can interact and produce value conflicts. These conflicts are likely sources for problems that you should discuss in your problem statement and address in your solution.

**Exercise 1c:**

Write out the requirements (ethical and practical) for a good solution. Identify the parts of the STS that need changing. Then, develop a concise summary statement of the central problem your decision point raises. As you design solutions to this problem, you may want to revise this problem statement. Be sure to experiment with different ways of framing this problem.

**Harris, Pritchard, and Rabins provide a useful approach to problem specification. See references below.**

**4.2.8 Exercise Two: Solution Generation**

**Generate solutions to the problem(s) you have specified in Exercise 1. This requires that...**

- each member of your group develop a list of solutions,
- the group combines these individual lists into a group list, and...
- the group reduces this preliminary list to a manageable number of refined and clarified solutions for testing in the next stage.

**Helpful Hints for Solution Generation****1. Solution generation requires proficiency in the skills of moral imagination and moral creativity.**

Moral imagination is the ability to open up avenues of solution by framing a problem in different ways. Toysmart could be framed as a technical problem requiring problem-solving skills that integrate ethical considerations into innovative designs. Moral creativity is the ability to formulate non-obvious solutions that integrate ethical considerations over various situational constraints.

**2. Problems can be formulated as interest conflicts. In this case different solution options are available.**

- **Gather Information.** Many disagreements can be resolved by gathering more information. Because this is the easiest and least painful way of reaching consensus, it is almost always best to start here. Gathering information may not be possible because of different constraints: there may not be enough time, the facts may be too expensive to gather, or the information required goes beyond scientific or technical knowledge. Sometimes gathering more information does not solve the problem but allows for a new, more fruitful formulation of the problem. Harris, Pritchard, and Rabins in *Engineering Ethics: Concepts and Cases* show how solving a factual disagreement allows a more profound conceptual disagreement to emerge.
- **Nolo Contendere.** Nolo Contendere is latin for not opposing or contending. Your interests may conflict with your supervisor but he or she may be too powerful to reason with or oppose. So your only choice here is to give in to his or her interests. The problem with nolo contendere is that non-opposition is often taken as agreement. You may need to document (e.g., through memos) that you disagree with a course of action and that your choosing not to oppose does not indicate agreement.
- **Negotiate.** Good communication and diplomatic skills may make it possible to negotiate a solution that respects the different interests. Value integrative solutions are designed to integrate conflicting values. Compromises allow for partial realization of the conflicting interests. (See the module, **The Ethics of Team Work**, for compromise strategies such as logrolling or bridging.) Sometimes it may be necessary to set aside one's interests for the present with the understanding that these will be taken care of at a later time. This requires trust.
- **Oppose.** If nolo contendere and negotiation are not possible, then opposition may be necessary. Opposition requires marshalling evidence to document one's position persuasively and impartially. It makes use of strategies such as leading an "organizational charge" or "blowing the whistle." For more on whistle-blowing consult the discussion of whistle blowing in the Hughes case that can be found at computing cases.

- **Exit.** Opposition may not be possible if one lacks organizational power or documented evidence. Nolo contendere will not suffice if non-opposition implicates one in wrongdoing. Negotiation will not succeed without a necessary basis of trust or a serious value integrative solution. **As a last resort**, one may have to exit from the situation by asking for reassignment or resigning.

### 3. Solutions can be generated by readjusting different components of the STS.

- **Technical Puzzle.** If the problem is framed as a technical puzzle, then solutions would revolve around developing designs that optimize both ethical and technical specifications, that is, resolve the technical issues and realize ethical value. In this instance, the problem-solver must concentrate on the hardware and software components of the STS.
- **Social Problem.** If the problem is framed as a social problem, then solutions would revolve around changing laws or bringing about systemic reform through political action. This would lead one to focus on the people/groups/roles component (working to social practices) or the legal component.
- **Stakeholder Conflict.** If the problem is framed as a conflict between different stakeholder interests, then the solution would concentrate on getting stakeholders (both individuals and groups) to agree on integrative or interest compromising solutions. This requires concentrating on the people/group/role component of the STS. (Note: A stakeholder is any group or individual with a vital interest at play in the situation.)
- **Management Problem.** Finally, if the problem is framed as a management problem, then the solution would revolve around changing an organization's procedures. Along these lines, it would address the (1) fundamental goals, (2) decision recognition procedures, (3) organizational roles, or (4) decision-making hierarchy of the organization. These are the four components of the CID (corporate internal decision) structure described in the "Ethical Reflections" section of the Toysmart case.
- **Nota Bene:** Financial issues are covered by the feasibility test in the solution implementation stage. As such, they pose side issues or constraints that do not enter into the solution generation phase but the solution implementation phase.

### 4. Brainstorming. Moral creativity, which involves designing non-obvious solutions, forms an essential part of solution generation. Here are some guidelines to get you started.

- Individually make out a list of solutions before the group meeting. Work quickly to realize a pre-established quota of five to ten solutions. After composing a quick first draft, revise the list for clarity only; make no substantial changes.
- Start the group brainstorming process by having the group review and assemble all the individual solutions. Do this quickly and without criticism. Beginning criticism at this stage will kill the creativity necessary for brainstorming and shut down the more timid (but creative) members of the group.
- Review the list and identify solutions that are identical or overlap. Begin the refining process by combining these solutions.
- Having reviewed all the brainstormed solutions, it is now time to bring in criticism. Begin by eliminating solutions with major ethical problems such as those that violate rights, produce injustices, or cause extensive harm.
- Identify but do not eliminate solutions that are ethical but raise serious practical problems. Do not initially eliminate an ethical solution because there are obstacles standing in the way of its implementation. Be descriptive. Identify and impartially describe the obstacles. Later, in the solution implementation stage, you may be able to design creative responses to these obstacles.
- Identify solutions that do not "fit" your problem statement. These require a decision. You can throw out the solution because it does not solve the problem or you can change the problem. If a solution does not fit the problem but, intuitively, seems good, this is a sign that you need to take another look at your problem statement.
- Don't automatically reject partial solutions. For example, sending memos through email rather than printing them out and wasting paper may not solve the entire recycling problem for your company.

But it represents a good, partial solution that can be combined with other partial solutions to address the bigger problem.

- Through these different measures, you will gradually integrate criticism into your brainstorming process. This will facilitate working toward a manageable, refined list of solutions for testing in the next stage.

### Exercise 3: Develop a Solution List

- Have each member of your team prepare a solution list and bring it to the next group meeting. Set a quota for this individual list, say, 5 to 10 solutions.
- Prepare a group list out of the lists of the individual members. Work to combine similar solutions. Be sure to set aside criticism until the preliminary group list is complete.
- Make use of the following table.
- Refine the group list into a manageable number of solutions for testing in the next stage. Combine overlapping solutions. Eliminate solutions that do not respond to the requirements and the problem statement that you prepared in the previous exercise. Eliminate solutions that violate important ethical considerations, i.e., solutions that violate rights, produce harms, etc.
- Check your refined solution list with your problem statement. If they do not match, eliminate the solution or redefine the problem

#### Refined Brainstorm List

Solution Ranking	Description of Solution	Justification (fits requirements, fits problem)
Best Solution		
Second Best Solution		
Third Best Solution		
Fourth Best Solution		
Fifth Best Solution		

Table 4.12

Anthony Weston provides an illuminating and useful discussion of creative problem solving in the reference provided below.

### 4.2.9 Exercise Three: Solution Testing

In this section, you will test the solutions on the refined list your group produced in the previous exercise. Three ethics tests, described below, will help you to integrate ethical considerations in the problem-solving process. A global feasibility test will help to identify solutions with serious practical problems. Finally, a Solution Evaluation Matrix summarizes the results for class debriefings.

#### Setting up for the test.

- Identify the agent perspective from which the decision will be made
- Describe the action as concisely and clearly as possible.
- Identify the stakeholders surrounding the decision, i.e., those who will suffer strong impacts (positively or negatively) from the implementation of your decision. Stakeholders have a vital or essential interest (right, good, money, etc) in play with this decision.
- In the harm/beneficence test, identify the likely results of the action and sort these into harms and benefits.
- For the reversibility test, identify the stakeholders with whom you will reverse positions.



- For the public identification test, identify the values, virtues, or vices your action embodies. Associate these with the character of the agent.

### Harm/Beneficence Test

1. **What are the harms your solution is likely to produce? What are its benefits? Does this solution produce the least harms and the most benefits when compared to the available alternatives?**
2. **Pitfall—Too much.** In this "Paralysis of Analysis" one factor in too many consequences. To avoid the fallacy restrict the analysis to the most likely consequences with the greatest magnitude (Magnitude indicates the range and severity of impact).
3. **Pitfall—Too Little.** A biased or incomplete analysis results when significant impacts are overlooked. Take time to uncover all the significant impacts, both in terms of likelihood and in terms of magnitude.
4. **Pitfall—Distribution of Impacts.** Consider, not only the overall balance of harms and benefits but also how harms and benefits are distributed among the stakeholders. If they are equally or fairly distributed, then this counts in the solution's favor. If they are unequally or unfairly distributed, then this counts against the solution. Be ready to redesign the solution to distribute better (=more equitably or fairly) the harmful and beneficial results.

### Reversibility Test

1. **Would this solution alternative be acceptable to those who stand to be most affected by it? To answer this question, change places with those who are targeted by the action and ask if from this new perspective whether the action is still acceptable?**
2. **Pitfall—Too much.** When reversing with Hitler, a moral action appears immoral and an immoral action appears moral. The problem here is that the agent who projects into the immoral standpoint loses his or her moral bearings. The reversibility test requires viewing the action from the standpoint of its different targets. But understanding the action from different stakeholder views does not require that one abandon himself or herself to these views.
3. **Pitfall—Too little.** In this pitfall, moral imagination falls short, and the agent fails to view the action from another stakeholder standpoint. The key in the reversibility test is to find the middle ground between too much immersion in the viewpoint of another and too little.
4. **Pitfall—Reducing Reversibility to Harm/Beneficence.** The reversibility test requires that one assess the impacts of the action under consideration on others. But it is more than a simple listing of the consequences of the action. These are viewed from the standpoint of different stakeholders. The reversibility test also goes beyond considering impacts to considering whether the action treats different stakeholders respectfully. This especially holds when the agent disagrees with a stakeholder. In these disagreements, it is important to work out what it means to disagree with another respectfully.
5. **Pitfall—Incomplete survey of stakeholders.** Leaving out significant stakeholder perspectives skews the results of the reversibility test. Building an excellent death chamber works when one considers the action from the standpoint of Hitler; after all, it's what he wants. But treating an individual with respect does not require capitulating to his or her desires, especially when these are immoral. And considering the action from the standpoint of other stakeholders (say the possible victims of newer, more efficient gas chambers) brings out new and radically different information.
6. **Pitfall—Not Weighing and Balancing Stakeholder Positions.** This pitfall is continuous with the previous one. Different stakeholders have different interests and view events from unique perspectives. The reversibility test requires reviewing these interests and perspectives, weighing them against one another, and balancing out their differences and conflicts in an overall, global assessment.

### Publicity (or Public Identification) Test

1. **Would you want to be publicly associated or identified with this action? In other words, assume that you will be judged as a person by others in terms of the moral values**

expressed in the action under consideration. Does this accord with how you would want to or aspire to be judged?

2. **Pitfall—Failure to association action with character of agent.** In the publicity test, the spotlight of analysis moves from the action to the agent. Successfully carrying out this test requires identifying the agent, describing the action, and associating the agent with the action. The moral qualities exhibited in the action are seen as expressing the moral character of the agent. The publicity test, thus, rests on the idea that an agent's responsible actions arise from and express his or her character.
3. **Pitfall—Failure to appreciate the moral color of the action.** The publicity test assumes that actions are colored by the ends or goods they pursue. This means that actions are morally colored. They can express responsibility or irresponsibility, courage or cowardice, reasonableness or unreasonableness, honesty or dishonesty, integrity or corruption, loyalty or betrayal, and so forth. An analysis can go astray by failing to bring out the moral quality (or qualities) that an action expresses.
4. **Pitfall—Reducing Publicity to Harm/Beneficence Test.** Instead of asking what the action says about the agent, many reduce this test to considering the consequences of publicizing the action. So one might argue that an action is wrong because it damages the reputation of the agent or some other stakeholder. But this doesn't go deep enough. The publicity test requires, not that one calculate the consequences of wide-spread knowledge of the action under consideration, but that one draws from the action the information it reveals about the character of the agent. The consequences of bad publicity are covered by the harm/beneficence test and do not need to be repeated in the public identification test. The publicity test provides new information by turning from the action to the agent. It focuses on what the action (its moral qualities and the goods it seeks) says about the agent.

### Comparing the Test Results: Meta-Tests

1. The ethics tests will not always converge on the same solution because each test (and the ethical theories it encapsulates) covers a different dimension of the action: (1) harm/beneficence looks at the outcomes or consequences of the action, (2) reversibility focuses on the formal characteristics of the action, and (3) publicity zeros in on the moral character of the agent.
2. The meta-tests turn this surface disagreement into an advantage. The convergence or divergence between the ethics tests become indicators of solution strength and weakness.
3. **Convergence.** When the ethics tests converge on a given solution, this indicates solution strength and robustness.
4. **Divergence.** When tests diverge on a solution—a solution does well under one test but poorly under another—this signifies that it needs further development and revision. Test divergence is not a sign that one test is relevant while the others are not. Divergence indicates solution weakness and is a call to modify the solution to make it stronger.

### Exercise 3: Summarize your results in a Solution Evaluation Matrix

1. Place test results in the appropriate cell.
2. Add a verbal explanation to the SEM table.
3. Conclude with a global feasibility test that asks, simply, whether or not there exist significant obstacles to the implementation of the solution in the real world.
4. Finish by looking at how the tests converge on a given solution. Convergence indicates solution strength; divergence signals solution weakness.

**Solution Evaluation Matrix**

Solution/Test	Harm/Beneficence	Reversibility	Publicity (public identification)	Feasibility
First Solution				
Second Solution				
Third Solution				
Fourth Solution				
Fifth Solution				

**Table 4.13**

The ethics tests are discussed in Cruz and Davis. See references below. Wike and Brincat also discuss value based approaches in the two references below.

#### 4.2.10 Exercise Four: Solution Implementation

In this section, you will trouble-shoot the solution implementation process by uncovering and defusing potential obstacles. These can be identified by looking at the constraints that border the action. Although constraints specify limits to what can be realized in a given situation, they are more flexible than generally thought. Promptly identifying these constraints allows for proactive planning that can push back obstacles to solution implementation and allow for realization of at least some of the value embodied in the solution.

A **Feasibility Test** focuses on these situational constraints and poses useful questions early on in the implementation process. What conditions could arise that would hinder the implementation of a solution? Should the solution be modified to ease implementation under these constraints? Can the constraints be removed or modified through activities such as negotiation, compromise, or education? Can solution implementation be facilitated by modifying both the solution and the constraints?

**Feasibility Constraints**

Category	Sub-Category		
Resource	Money/Cost	Time/Deadlines	Materials
Interest	Organizational(Supervisor)	Legal (laws, regulations)	Political/Social
Technical	Technology does not exist	Technology patented	Technology needs modification

**Table 4.14**

#### Resource Constraints:

- **Does the situation pose limits on resources that could limit the realization of the solution under consideration?**
- **Time.** Is there a deadline within which the solution has to be enacted? Is this deadline fixed or negotiable?
- **Financial.** Are there cost constraints on implementing the ethical solution? Can these be extended by raising more funds? Can they be extended by cutting existing costs? Can agents negotiate for more money for implementation?

- **Resource.** Are necessary resources available? Is it necessary to plan ahead to identify and procure resources? If key resources are not available, is it possible to substitute other, more available resources? Would any significant moral or non-moral value be lost in this substitution?

#### Interest Constraints

- **Does the solution threaten stakeholder interests? Could it be perceived as so threatening to a stakeholder's interests that the stakeholder would oppose its implementation?**
- **Individual Interests.** Does the solution threaten the interests of supervisors? Would they take measures to block its realization? For example, a supervisor might perceive the solution as undermining his or her authority. Or, conflicting sub-group interests could generate opposition to the implementation of the solution even though it would promote broader organizational objectives.
- **Organizational Interests.** Does the solution go against an organization's SOPs (standard operating procedures), formal objectives, or informal objectives? Could acting on this solution disrupt organization power structures? (Perhaps it is necessary to enlist the support of an individual higher up in the organizational hierarchy in order to realize a solution that threatens a supervisor or a powerful sub-group.)
- **Legal Interests.** Are there laws, statutes, regulations, or common law traditions that oppose the implementation of the solution? Is it necessary to write an impact statement, develop a legal compliance plan, or receive regulatory approval in order to implement the solution?
- **Political/Social/Historical Constraints.** Would the solution threaten or appear to threaten the status of a political party? Could it generate social opposition by threatening or appearing to threaten the interests of a public action group such as an environmental group? Are there historical traditions that conflict with the values embedded in the solution?

#### Technical Constraints

- **Technology does not yet exist.** Would the implementation of the solution require breaking new technological ground?
- **Technology Protected by Patent.** The technology exists but is inaccessible because it is still under a patent held by a competitor.
- **Technology Requires Modification.** The technology required to implement solution exists but needs to be modified to fit the context of the solution. Important considerations to factor in would be the extent of the modification, its cost, and how long it would take to bring about the modification.

#### 4.2.11 Ethical Perspective: Free Speech

By this time, you have already worked through the various rights relevant to business and computing. The rights justification framework we have been using is based on the following:

1. A right is a **capacity of action essential to autonomy** that others are obliged to recognize and respect.
2. A duty is a principle that **obliges us to recognize and respect** the legitimate rights claims of others.
3. **Rights and duties are correlative.** For every right there is a series of correlative duties and duty-holders.
4. For a right claim to be legitimate, the right must be **essential** to autonomy, **vulnerable** to a standard threat, and imply correlative duties that do not deprive the duty-holders of anything essential (**feasible**).
5. Correlative duties generally fall into three categories. First, are the most fundamental duties **not to deprive** right holders of their right. Second are the duties **to prevent** others from depriving right-holders of their rights whenever possible. Finally, in cases where right-holders have been deprived of their right, there are correlative duties **to aid those deprived**.

The main claim of freedom of speech consists of the right to express our opinions, even if—and especially when—these are offensive to others. Is this a legitimate or valid claim? If so, it must be essential, vulnerable, and feasible. Why would freedom of speech be essential to autonomy? (Would you agree that expressing one's ideas and receiving feedback from others is a necessary part of developing these thoughts? Then how would developing thoughts contribute to autonomy?) Is the standard threat that our thoughts may be offensive to others who would then try to censor them? Does this constitute vulnerability and the need to protect speech as the capacity to express and develop thought? Finally, does recognizing and respecting free speech in others deprive us of something essential? (Is the legal punishment for defamation a violation of the right of free speech? Does recognizing and respecting the right of free speech of others deprive us of the ability to defend ourselves against defamation?)

John Stuart Mill limits freedom of speech by his "harm principle." If the speech threatens to harm someone (the speaker not included) then society can suppress or censor that speech in its own defense. This is a broad statement of the right. For example, free speech need not be responsible speech. It need not even be true speech for Mill (see below) discusses the bad consequences of censoring false speech. In fact only speech that directly causes harm falls under this principle: yelling "fire" in a crowded theater, inciting an angry mob to riot, and motivating others to inflict harm. So Mill pushes back the limits to free speech but not entirely. Even for its most eloquent advocate, free speech has its limits.

Still free speech is allocated generous territory by Mill. He bases his argument against censorship on the **content** of opinions. He shows how censorship is founded on the untenable position of infallibility. If one censors opinion contrary to received opinion, then one insulates received opinion from every avenue of criticism and improvement—this assumes infallibility. (Received opinion is that which everybody takes for true without question or examination. Slavery was received opinion in the southern states of the U.S. in the 18th and 19th centuries.) Moreover, this assumes, without proof, the veracity of what society currently accepts as truth. Mills' argument for free speech and against censorship looks at three possibilities:

1. **The content of the speech to be censored is true.** In this case, censorship is wrong because it denies society of the benefit of the truth. This is the most obvious case of the wrongness of censorship.
2. **The content of the speech turns out to be (only) partially true.** In this case, censorship is still wrong because it suppresses part of the truth and, thus, deprives society of its benefits.
3. **The content of the speech is entirely false.** This is the test case. If censorship is wrong even when the view suppressed is entirely false, then this is telling. For Mill, censorship is wrong even if the suppressed speech turns out to be entirely false, because suppressing the false deprives the truth of clarity, which is achieved by contrast with the false, and vigor, which is purchased by defending the true against the challenges brought to it by the false.

There is another argument for censorship based, this time, on the speaker. Corporations are considered legal persons and have been endowed with legal rights including free speech. Until 1978 this included commercial free speech rights but not political free speech rights; corporations could advertise their products (within regulated parameters of truth) but they could not advocate a political candidate. But **First National Bank of Boston v Belotti** changed all that. To deny corporations, as legal persons, the right to political speech is to target the speaker, not the speech. This opens the way for the suppression of speech based on gender, race, political persuasion, or religion because with each of these we have turned from the speech itself to the characteristics of the speaker. So the Supreme Court of the United States, using this argument, extended corporate free speech rights to include political speech.

The minority opinion issued by the Supreme Court in this case also found a dangerous precedent. Corporate speech backed by the huge financial resources of these commercial entities can easily silence the speech of human individuals by drowning it out. Corporations have the money to buy access to the mass media to disseminate their speech. Human individuals cannot do this so easily.

But consider speech in cyberspace. Outside cyberspace, audiences are best reached through the expensive mass media giving the advantage to the corporation with its huge financial resources. In cyberspace, the networking capacities of the Internet put the speaker in direct contact with the audience and, thus, circumscribes the need for purchasing access to audiences through the expensive mass media. The importance of

the speaker diminishes and the spotlight focuses, again, on the content of the speech. Notice how in Biomatrix, three individuals were able to blanket the Internet with defamatory speech against Biomatrix. With this new found equality in cyberspace, how can corporate organizations like Biomatrix protect themselves against cyberslanders? One possibility: hold online service providers or OSPs responsible for the defamatory content published within their portals. This issue is addressed in the next ethics perspective piece.

#### 4.2.12 Ethical Perspective: OSP Responsibility

##### Legal Responsibility: Criminal

Legal responsibility is a highly structured practice. There are two basic kinds, criminal and civil. Criminal responsibility requires establishing three things:

1. That the agent under investigation had a **mens rea**, a guilty state of mind or an intention to do wrong. Suppose, for example, that the BXM Police intended to defame Biomatrix and its top officials in order to drive down the value of its stock and to make money by short selling it. Or suppose that the two former Biomatrix employees decided to get even with their former employers. This state of mind or intention would be termed a mens rea.
2. That the agent under investigation actually committed the **actus reus**, the wrongful action. Again, the BXM police posted thousands of messages in Yahoo that were false and defamatory. This action constitutes the actus reus.
3. That the mens rea shaped and guided the actus reus. The messages of the BXM Police must be defamatory and they must be so intentionally. In other words, the BXM Police cannot be punished if they unintentionally published defamatory messages even if they had formed an intention to get back at Biomatrix. Their guilty mind must have informed the guilt act, guiding it and shaping it in its planning and execution. Thus, the criminal responsibility framework presupposes this connection between mens rea and actus reus in order to justify punishment. We can't punish an individual for having a guilty intention; he or she must act on it. And we can't punish those who do wrong accidentally, although we may be able to establish negligence under civil law (tort). The intention to do wrong must issue forth into an actual wrongful action in order for punishment to kick in.
4. This discussion of criminal responsibility is taken largely from Manuel Velazquez who argues that corporations are not morally responsible because they lack both mens rea and actus reus.

##### Legal Responsibility: Civil

- Responsibility under civil law requires establishing fault such as negligence, carelessness, or recklessness. (The later two faults when egregious actually provide an opportunity for criminal responsibility to spill into civil responsibility. If a negligence expands into recklessness, then it seems to be in society's interest to punish and deter it.) Yahoo may not have intended to harm Biomatrix and its top officials but they may not have taken reasonable precautions from preventing others from using their bulletin board to cause this harm. If the harm (tort) occurs because of some fault on the part of Yahoo, then those who suffer this harm have the right to receive compensation to make them whole, i.e., to restore them to the condition they were in prior to the harm.
- Analogically extending defamation law as it applies offline requires considering three possible ways that Yahoo may have been negligent. The law needs to settle on which role to ascribe to the OSP: publisher, distributor, and common carrier. their responsibility for displaying defamatory content depends on which role the law settles in on. In all three cases, responsibility follows from power and control; we are responsible for those things that fall within the scope of our power and control.
- (1) If OSPs are considered publishers, then they are responsible for the defamatory material that appears within their various forums. This is because publishers exercise editorial control over what they publish. The nature of the speech, its content, is within the scope of their power and control. They are, therefore, responsible. OSPs will dispute this. For example, the Italian court recently found Google executives guilty in abstentia for a video displayed in YouTube that showed a child with Down

syndrome being abused by his classmates. The parents successfully sued Google for violating privacy by allowing the publishing of the video. Google removed it immediately upon notification. But they have been admonished by the court for allowing the video to be published in the first place. Google claims that they do not exercise editorial control over what can be published and are only responsible for timely removal of objectionable content.

- (2) If OSPs are considered distributors, then they are responsible only for removing objectionable content promptly on notification. They do not exercise editorial control over the content distributed through their portals. Therefore, they must have within the power of the OSP is to remove content quickly upon notification by users.
- (3) OSPs can also be treated as common carriers like telephone companies. In this case, they would be responsible for filtering objectionable content as it makes its way into their forums. To a certain extent, this technology exists since filtering programs are used to detect and eliminate spam. (The author also found in Yahoo user-activated filters that would remove offensive language.) But filters bring their own problems as Lawrence Lessig points out in **Code**. They can never be calibrated sensitively enough to prevent them from filtering out legitimate content. Again, in reference to the Italy trial, Google executives argued that holding them responsible as common carriers imposes on them the impossible task of reviewing all content before it is published. They also argue that this would have a chilling effect on the creativity and innovation engendered on the Internet.
- The law in the U.S. has generally settled on treating OSPs as distributors. So assume that Yahoo is responsible as a distributor in the Biomatrix case. (a) Are they responsible for the defamatory content displayed in the financial bulletin board? (b) If so, are they required to compensate Biomatrix for the decline in Biomatrix stock that occurred during the time these messages appeared? (c) Did Biomatrix notify Yahoo promptly of the presence of defamatory material? Or, was it that Biomatrix did not quickly discover the defamatory messages? (d) Was it Yahoo's non-responsiveness, i.e., that they failed to remove the defamatory messages promptly after notification that led to the harm? (e) Given the long period over which Biomatrix stock declined, can it be proven that the defamatory messages were the cause? Even assuming Yahoo responsibility as distributor here, there are still many factual issues that must be settled before proving that Yahoo owes damages to Biomatrix.
- This discussion of ISP responsibility has been taken from Spinello (see below). While his discussion is somewhat dated given the recent advances in content id software, it still shows how responsibility online has been structured largely on the basis of analogies with offline experiences.

## Moral Responsibility

- **Moral responsibility** is a more nuanced concept. While legal responsibility concentrates on establishing minimum standards of acceptable conduct, moral responsibility can move from the minimum all the way to the exemplary. While legal responsibility looks to where individuals can be punished for untoward actions, moral responsibility considers societal responses that range from social ostracism to recognition and praise for conduct that is outstanding. Roughly speaking, moral responsibility is a much more flexible and wide ranging concept and practice.
- Moral responsibility begins with causality; some thing (an agent, thing, or event) cause some other thing to occur. **Causal responsibility** is essential for establishing criminal responsibility; one cannot blame or punish an individual for something that that individual did not cause. It is also important for establishing moral responsibility ranging all the way from blame to praise.
- **Vicarious responsibility** departs somewhat from causal responsibility. A parent might be responsible for paying for the window broken by his or her child. In other forms of vicarious responsibility, one person (a principle) authorizes another (a designated agent) to act on his or her behalf. A private individual may hire an engineer to design and supervise the building of a house. The private individual is the principle who originates the act; it expresses his or her interest or intention. The agent is responsible for the execution of the action originated by the principle; he or she executes the designs of the principle. A special problem can arise here. How can the principle ensure that the agent remains faithful to his or her interests? Often agents are deviated by conflicting interests, that is, interests that

come in from the outside and adversely effect the ability of the agent to skillfully and professionally carry out the interests of the principle.

- **Capacity responsibility** sets forth the conditions under which an action can be imputed or attributed to an agent for the purpose assigning moral praise and blame. The ethicists, F.H. Bradley, argues that there are three: selfsameness, moral sense, and ownership. More on these below.
- Causal and capacity responsibility are focused on the past. **Role Responsibility** looks to the future and outlines those actions or tasks one is obliged to perform as a part of his or her social, occupational, or professional role. Parents are (role) responsible for looking after their children's health. Engineer's are (role) responsible for holding paramount the health, safety, and welfare of the public. Individuals are answerable when they fail to carry out their role responsibilities.
- Finally, there is what Goodpaster and Velazquez describe as the **aretaic sense of responsibility** or responsibility as a virtue or excellence. (Arete in Greek signifies excellence.) Calling an individual responsible in this sense is to call him or her trustworthy or reliable in an exemplary sense. This applies to those who carry out their responsibilities in an exemplary manner (an outstanding parent) and go beyond the moral minimum in doing so.

#### Capacity Responsibility: Conditions of Imputability

- **Self-Sameness:** We cannot punish one individual for the action of another. (Does this mean we cannot punish Yahoo for messages displayed by the BXM Police?) In more formal terms, we cannot punish one individual for the actions committed by another. We can punish one person only if he or she is the "selfsame" person as the one who committed the untoward (wrongful) action in the past. This condition says that you have to have the right person, the one who, in fact, did the wrongful action in question. In the Biomatrix case, the John Doe lawsuit serves to establish selfsameness in this case by identifying the real identities of the authors of the defamatory messages.
- **Moral Sense:** In general, to be responsible is to be able to appreciate the moral qualities of one's acts and to shape one's responses in accordance with this appreciation. Children do not have this capacity yet. Those (besides children) who lack this capacity are generally termed insane. (Herbert Fingarette discusses this in some detail in his book **Criminal Insanity**.) It is pretty clear that Costanzo, Costanzo, and Morris had moral sense, that is, that they had the ability to appreciate that their messages were defamatory and that they were wrong. Their claim that such their actions were excusable because they were online is difficult to accept. But does operating anonymously online undermine moral sense? Do different conventions (like flaming) cause us to suspend normal expectations regarding defamation? Huff, Johnson, and Miller have interesting things to say about this in their essay on Virtual Harm.
- **Ownership:** This condition is situation specific as opposed to moral sense which is more general. Individuals are responsible only for those actions performed knowingly and voluntarily. Put negatively, we are not responsible for actions performed under ignorance or compulsion. You betray your friend's secret without knowing that it was a secret. Does this mean you are not responsible? You said some terrible things about your friend but you were drunk at the time. How could you help it? But weren't you responsible for getting yourself into this state in the first place? The BXM Police knew what they were doing. Specifically, they knew that the information they were spreading about Biomatrix was false. And, nobody was holding a gun to their heads forcing them to send their messages. Their actions, then, were performed without ignorance and compulsion. This absence of ignorance and compulsion establishes capacity in terms of ownership.

#### 4.2.13 What did you learn?

This section provides closure to the module for students. It may consist of a formal conclusion that summarizes the module and outlines its learning objectives. It could provide questions to help students debrief and reflect on what they have learned. Assessment forms (e.g., the "Muddiest Point" Form) could be used



to evaluate the quality of the learning experience. In short, this section specifies the strategy for bringing the module to a close.

**In this module, you have...**

- studied a real world case that raised serious problems with intellectual property, privacy, security, and free speech. Working with these problems has helped you to develop a better “working” understanding of these key concepts,
- studied and practiced using four decision-making frameworks: (1) using socio-technical analysis to specify the problem in a complex, real world case, (2) practiced brainstorming techniques to develop and refine solutions that respond to your problem, (3) employed three ethics tests to integrate ethical considerations into your solutions and to test these solutions in terms of their ethics, and (4) applied a feasibility analysis to your solutions to identify and trouble-shoot obstacles to the implementation of your ethical solution,
- explored the analogy between solving ethical and design problems,
- practiced the skills of moral imagination, moral creativity, reasonableness, and perseverance, and...
- experienced, through key participant perspectives, the challenges of ethics advocacy “under the gun.”

#### **Debrief on your group work before the rest of the class**

1. Provide a concise statement and justification of the problem your group specified
2. Present the refined solution generation list your group developed in exercise 2.
3. Present and provide a quick summary explanation of the results of your group’s solution evaluation matrix.
4. Show your group’s feasibility matrix and summarize your assessment of the feasibility of implementing the solution alternatives you tested in exercise three.

#### **Group Debriefing**

1. Were there any problem you group had working together to carry out this case analysis? What were the problems and how did you go about solving them?
2. What problems did you have with understanding and practicing the four frameworks for solving problems? How did you go about solving these problems? Does your group have any outstanding questions or doubts?
3. Now that you have heard the other groups present their results, what differences emerged between your group’s analysis and those of the other groups? Have you modified your analysis in light of the analyses of the other groups? If so how? Do the other groups need to take into account any aspects of your group’s debriefing?

#### **4.2.14 Biomatrix Presentation**

[MEDIA OBJECT]<sup>9</sup>

[MEDIA OBJECT]<sup>10</sup>

#### **Shortened Responsibility Presentation**

[MEDIA OBJECT]<sup>11</sup>

#### **Biomatrix Decision Points for Fall 2011**

[MEDIA OBJECT]<sup>12</sup>

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<sup>9</sup>This media object is a downloadable file. Please view or download it at  
<Biomatrix\_Oct\_10.pptx>

<sup>10</sup>This media object is a downloadable file. Please view or download it at  
<Biomatrix\_Resp\_V1.pptx>

<sup>11</sup>This media object is a downloadable file. Please view or download it at  
<Biomatrix\_Resp\_V2.pptx>

<sup>12</sup>This media object is a downloadable file. Please view or download it at  
<Biomatrix decision points.docx>

### 4.2.15 Appendix

This optional section contains additional or supplementary information related to this module. It could include: assessment, background such as supporting ethical theories and frameworks, technical information, discipline specific information, and references or links.

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#### 4.2.16 EAC ToolKit Project

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## Chapter 5

# Socio-Technical System Analysis

### 5.1 Socio-Technical Systems in Professional Decision Making<sup>1</sup>

#### 5.1.1 Module Introduction

##### **Milagro Beanfield War**

Joe Mondragon has created quite a stir in Milagro, a small village in New Mexico. He has illegally diverted water from the irrigation ditch to his field to grow beans. Access to scarce water in New Mexico has created sharp political and social disputes which have reached a crises point in Milagro. Competing with traditional subsistence farmers like Joe is the profitable recreation industry. Ladd Devine, a wealthy developer, has joined with the state government in New Mexico to build a large recreational center consisting of a restaurant, travel lodge, individual cabins and a lavish golf course. Since there is not enough water to cover both recreational and agricultural uses and since Ladd Devine's project promises large tax revenues and new jobs, the state government has fallen behind him and has promised to give to the recreational facilities all the water it needs. Hence, the problem created by Mondragon's illegal act. You work for Ladd Devine. He has asked you to look into local opposition to the recreational facility. Along these lines, you attend the town meeting scheduled by Ruby Archuleta in the town's church. You are concerned about Charlie Bloom's presentation and the impact it may have on the local community. Prepare a STS analysis to test Bloom's assertions and better prepare Ladd Devine for local opposition to his facility.

##### **Incident at Morales**

Fred is a chemical engineer hired by Phaust Corporation to design and make operational a new chemical plant for the manufacture of their newly redesigned paint thinner. Under financial pressure from the parent French company, Chimestre, they have decided to locate their new plant in Morales, Mexico to take advantage of lower costs and more flexible government regulations. You are well on the way toward designing this new plant when news comes from Chimestre that all budgets are being cut 20% to finance Chimestre's latest takeover acquisition. You are Fred and are now faced with a series of difficult financial-engineering decisions. Should you hold out for the more expensive Lutz and Lutz controls or use the cheaper ones produced locally? Should you continue with the current plant size or cut plant size and capacity to keep within budgetary constraints? You have also been made aware of the environmental and health risks associated with not lining the waste ponds used by the plant. Do you advocate lining the ponds or not, the latter being within compliance for Mexican environmental and health regulations. Prepare a STS analysis to help you make and justify these decisions. Make a series of recommendations to your supervisors based on this study.

##### **Puerto Rican Projects**

- Your company, Cogentrix, proposes a cogeneration plant that uses coal, produces electricity, and creates steam as a by-product of electricity generation process. Because the steam can be sold to nearby tuna

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m14025/1.12/>>.

canning plants, your company wishes to study the feasibility of locating its plant in or near Mayaguez, Puerto Rico. (Co-generation technology has become very popular and useful in some places.) Carry out a STS analysis to identify potential problems. Make a recommendation to your company. If your recommendation is positive, discuss how the plant should be modified to fit into the Mayaguez, Puerto Rico STS.

- Your company, Southern Gold Resources, is interested in mining different regions in central Puerto Rico for copper and gold. But you know that twenty years earlier, two proposals by two international mining companies were turned down by the PR government. Carry out a STS study to examine the feasibility of designing a different project that may be more acceptable to local groups. What does your STS analysis tell you about social and ethical impacts, financial promise, and likely local opposition. Can profitable mining operations be developed that respect the concerns of opposed groups? What is your recommendation based on your STS analysis?
- Windmar, a company that manufactures and operates windmills for electricity generation has proposed to locate a windmill farm in a location adjacent to the Bosque Seco de Guanica. They have encountered considerable local opposition. Carry out a STS analysis to understand and clarify this opposition. Can the concerns of local stakeholders be addressed and the windmill farm still remain profitable? How should the windmill project be modified to improve its chances of implementation?

### 5.1.2 Things to Know about STSs

#### What is a Socio-Technical System? (STS)

A socio-technical system (=STS) is a tool to help a business anticipate and successfully resolve interdisciplinary business problems. "Interdisciplinary business problems" refer to problems where financial values are intertwined with technical, ethical, social, political, and cultural values. (Reference: Chuck Huff, Good Computing: A Virtue Approach to Computer Ethics, draft manuscript for Jones and Bartlett Publishers)

#### Some Things to Know About STSs

1. Socio-Technical systems provide a tool to uncover the different environments in which business activity takes place and to articulate how these constrain and enable different business practices.
2. A STS can be divided into different components such as hardware software, physical surroundings, people/groups/roles, procedures, laws/statutes/regulations, and information systems. Other components include the natural environment, markets, and political systems.
3. But while different components can be distinguished, these are, in the final analysis, inseparable. Socio-Technical Systems are first and foremost **systems**: their components are interrelated and interact so that a change in one often produces changes that reverberate through the system.
4. Socio-Technical systems embody moral values such as justice, responsibility, respect, trust, and integrity as well as non-moral values such as efficiency, satisfaction, productivity, effectiveness, and profitability. Often these values can be located in one or more of the system components. Often they conflict with one another causing the system as a whole to change.
5. STSs change, and this change traces out a path or trajectory. The normative challenge here is to bring about and direct changes that place the STS on a value-positive trajectory. In the final analysis, we study STS to make sure that they change in a value-realizing direction.

### 5.1.3 Constituents or Sub-Environments of Business Activity

Paragraph summary of sub-environments of business followed by a table devoted to each one.

- **Technology** including hardware, software, designs, prototypes, products, or services. Examples of engineering projects in Puerto Rico are provided in the PR STS grid. In the Therac-25 case, the hardware is the double pass accelerator, in Hughes the analogue-to-digital integrated circuits, and in

Machado the UNIX software system and the computers in the UCI laboratories that are configured by this system. Because technologies are structured to carry out the intentions of their designers, they embed values.

- **Physical Surroundings.** Physical surroundings can also embed values. Doors, by their weight, strength, material, size, and attachments (such as locks) can promote values such as security. Physical surroundings promote, maintain, or diminish other values in that they can permit or deny access, facilitate or hinder speech, promote privacy or transparency, isolate or disseminate property, and promote equality or privilege.
- **People, Groups, and Roles.** This component of a STS has been the focus of traditional stakeholder analyses. A stakeholder is any group or individual which has an essential or vital interest in the situation at hand. Any decision made or design implemented can enhance, maintain, or diminish this interest or stake. So if we consider Frank Saia a decision-maker in the Hughes case, then the Hughes corporation, the U.S. Air Force, the Hughes sub-group that runs environmental tests on integrated circuits, and Hughes customers would all be considered stakeholders.
- **Procedures.** How does a company deal with dissenting professional opinions manifested by employees? What kind of due process procedures are in place in your university for contesting what you consider to be unfair grades? How do researchers go about getting the informed consent of those who will be the subjects of their experiments? Procedures set forth ends which embody values and legitimize means which also embody values.
- **Laws, statutes, and regulations** all form essential parts of STSs. This would include engineering codes as well as the state or professional organizations charged with developing and enforcing them
- The final category can be formulated in a variety of ways depending on the specific context. Computing systems gather, store, and disseminate information. Hence, this could be labeled **data and data storage structure**. (Consider using data mining software to collect information and encrypted and isolated files for storing it securely.) In engineering, this might include the information generated as a device is implemented, operates, and is decommissioned. This information, if fed back into refining the technology or improving the design of next generation prototypes, could lead to uncovering and preventing potential accidents. Electrical engineers have elected to rename this category, in the context of power systems, rates and rate structures.

#### Technological Component

Component	Description	Examples	Frameworks	More Frameworks
<b>Technological</b>	Hardware: Machines of different kinds	Door (with tasks delegated to it such as automatically shutting and being locked)	Value Discovery (identifying and locating values in STS)	<b>Social Constructionism</b> >: Restoring interpretive flexibility to reconstruct a technology to remove bias and realize value
<i>continued on next page</i>				

	Code that configures machines around human purposes	Power generating technologies based on renewable and nonrenewable resources	Value Translation (Operationalizing and implementing values in a STS by designing and carrying out a procedure)	Identifying and mitigating complexity in the form of tightly-coupled systems and non-linear causal chains
	Technology can constrain business activity by de-skilling	Automobiles, computers, cell phones all of which have produced profound changes in our STSs	Value Verification (Using methods of participatory observation to determine how effectively values have been realized.)	De-centralizing control and authority
	Technology, especially software, can <b>instrument</b> human action	Microsoft Office, Firefox Browser, Google Chrome, Google Docs, Social Networking software	<b>Transperspectivity</b> discovering strands of construction of current STS; identifying possibilities for reconstruction	Designing to avoid the technological imperative and reverse adaptation (where humans abandon ends and serve the ends of technologies)

**Table 5.1:** Technological component of STS**Table 2: Ethical and Social Component**

Component	Description	Examples	Frameworks	More Frameworks
<b>Ethical Environment</b>	<b>Moral Constructs:</b> Spheres of justice where distribution takes place according to context-dependent rules (Rules)	<b>Basic Moral Concepts:</b> rights, duties, goods, values, virtues, responsibility, and justice	<b>Utilitarianism:</b> Happiness is tied to maximizing the satisfaction of aggregated preferences.	<b>Basic Capabilities:</b> life, bodily health, bodily integrity
<i>continued on next page</i>				



	<b>Social Constructs:</b> Power and its distribution among groups and individuals	<b>Intermediate Moral Concepts:</b> Privacy, Property, Informed Consent, Free Speech, due Process, Safety/Risk	<b>Rights:</b> Capacities of action that are essential to autonomy, vulnerable to standard threats, and correlated with feasible duties	<b>Cognitive Capabilities:</b> Sense, Imagination, Thought; Emotion; Practical Reason
	<b>Right:</b> A right is a capacity of action, essential to autonomy, that others are obliged to recognize and respect.	<b>Privacy:</b> If the information is directly relevant to the relation to the holder and the seeker, then it is not private.	<b>Virtues:</b> Settled dispositions toward choosing the mean between extremes of excess and defect. (Courage is the mean between cowardice and recklessness)	<b>Social Capabilities:</b> Affiliations, Other Species
	<b>Duty:</b> A duty is a principle that obliges us to recognize and respect the rights of others.	<b>Property:</b> That with which I mix my labor is mine. Intellectual property is non-rivalrous and non-excludable.	<b>Capabilities Approach:</b> For Nussbaum, capabilities answer the question, “What is this person able to do or be?” For Sen, capabilities are “‘substantial freedoms,’ a set of (causally interrelated) opportunities to choose and act.”	<b>Capabilities that address vulnerabilities:</b> Play and Control over one’s environment

**Table 5.2:** Ethical Environments of the socio-technical system

**Physical Surroundings**

<b>Physical Surroundings</b>	<b>Description</b>	<b>Examples</b>	<b>Frameworks</b>	<b>Frameworks</b>
	Physical environment imposes constraints (limits) over actions that restrict possibilities and shape implementation.	Influence of rivers, mountains, and valleys on social and economic activities such as travel, trade, economic and agricultural activity, commerce, industry, and manufacturing.	Classroom environment enables or constrains different teaching and learning styles. For example, one can pair off technically enhanced and technically challenged classrooms with student-centered and teacher-centered pedagogical styles and come up with four different learning environments. Each constrains and enables a different set of activities.	The physical arrangement of objects in the classroom as well as the borders created by walls, doors, and cubicles can steer a class toward teacher-centered or student-centered pedagogical styles.

**Table 5.3:** This table summarizes the physical environment of the STS and how it can constrain or enable action.

**People, Groups, and Roles (Stakeholders)**

<b>Stakeholders</b>	<b>Description</b>	<b>Examples</b>	<b>Frameworks</b>	<b>Frameworks</b>
	Any group or individual that has a vital interest at play (at stake) in the STS.	<b>Market Stakeholders:</b> Employees, Stockholders	<b>Non-Market Stakeholders:</b> communities, activist groups and NGOs	<b>Role:</b> The place or station a stakeholder occupies in a given organizational system and the associated tasks or responsibilities.
<i>continued on next page</i>				

		customers, suppliers, retailers/wholesalers, creditors	business support groups, governments, general public (those impacted by projects who do not participate directly in their development	<b>Interests:</b> Goods, values, rights, interests, and preferences at play in the situation which the stakeholder will act to protect or promote.
		(Distinction between market and non-market stakeholders comes from Lawrence and Weber, <b>Business and Society: Stakeholders, Ethics, Public Policy</b> , 12th edition. McGraw-Hill, 14-15.	Alliances are discussed by Patricia Werhane et al., <b>Alleviating Poverty Through Profitable Partnerships: Globalization, Markets, and Economic Well-being</b> . Routledge (2009).	<b>Relation:</b> Each stakeholder is related to other stakeholders in an alliance and each relation is tied to goods and values.

**Table 5.4:** This table shows the social or stakeholder environment of the STS. A stakeholder is any group or individual that has a vital interest at play in the STS.

**Procedural Environment**

<b>Procedural</b>	<b>Description</b>	<b>Examples</b>	<b>Framework</b>	<b>Framework</b>
	A series of interrelated actions carried out in a particular sequence to bring about a desired result, such as the realization of a value. Procedures can schematize value by setting out a script for its realization.	Hiring a new employee: (a) settling on and publishing a job description; (b) soliciting and reviewing applications from candidates; (c) reducing candidate list and interviewing finalists; (d) selecting a candidate; (e) tendering that candidate a job offer. Other procedures: forming a corporation, filing for bankruptcy, gaining consent to transfer TGI and PII to a third party (Toysmart: opt-in and opt-out procedures).	<b>Value Realization Process</b> in Software Engineering: (a) <b>Discovery:</b> Uncovering values shared by a given community; (b) <b>Translation:</b> operationalizing and implementing values in a given STS; (c) <b>Verification:</b> using methods of participatory observation (surveys and interviews) to validate that the values in question have been discovered and translated.	<b>Challenging the Statement of Values:</b> (a) A stakeholder group raises a conceptual, translation, range, or development issue; (b) Group presents their challenge and response to other stakeholders; (c) If other stakeholder groups agree, then the challenge leads to a revision in the SOV; (d) Community as a whole approves the revision.

**Table 5.5****Legal Environment: Laws, Statutes, Regulations**

<b>Laws, Statutes, Regulations</b>	<b>Description</b>	<b>Examples</b>	<b>Frameworks</b>	<b>Frameworks</b>
	Laws differ from ethical principles and concepts in that laws prescribe the minimally moral while ethical principles and concepts routinely explore higher moral "spaces."	<b>Criminal Law:</b> Applies to individuals; interested party in a criminal trial is society, not the victim.	<b>Civil Law:</b> Torts concern wrongful injury. The objective of a tort is to make the victim "whole" after an injury.	US and British law work through a common law system where current decisions are based on past decisions or precedent.
<i>continued on next page</i>				

	Ethical principles challenge and criticize laws by bringing into question their normative content.	Involves proving a <b>mens rea</b> (guilty mind) and <b>actus reus</b> (guilty or law-breaking act) and that the mens rea caused the actus reus.	To prevail in a tort one must prove (in order of severity) negligence, recklessness, or intent.	The Puerto Rican system of law is based on the Napoleonic code where decisions relate directly to existing law and statute and precedent plays a weaker role.
	Laws can challenge ethical principles and concepts by raising issues of practicality. Also, as in responsibility theory, the law can structure and inform the moral discussion.	Criminal law does not apply to corporations because they "have no soul to damn and no body to kick" Baron Thurlow	Negligence involves proving that the defendant failed to meet some standard of <b>due care</b> .	Question: How does the statute-based Napoleonic system in PR constrain and enable business practice in relation to other systems such as the British and American common law systems?
			Contract law concerns the violation of the terms of a contract.	

Table 5.6

## Market Environment

Market Environment	Description	Examples	Frameworks	Frameworks
	Business takes place within different markets that shape supply, demand, and price. Globalization frequently requires that a business be adept at operating across different markets	<b>Laissez Faire:</b> Each economic unit makes choice based on rational (enlightened) self-interest. (Private ownership of goods.)	<b>Assumptions of a Free Market System:</b> (a) Individual decisions are aggregated. (b) Information flows through price structure.	<b>Recent economic studies of the limits of laissez faire markets:</b>
<i>continued on next page</i>				

	Liberal use made here of notes from Economics class taught by CR Winegardner, University of Toledo, 1971-1972	<b>Liberal Democratic Socialism:</b> Limited government intervention is needed to improve upon the choice of individual economic units. (Mixture of private and public ownership)	(c) Free association. (d) Absence of force or fraud. (e) Individual agents are rational utility maximizer	(a) <b>Information Asymmetries</b> (as studied by Stieglitz). (b) <b>Monopolies</b> which, in the absence of competition, can dictate standards of price, product and service.
	Materials also take from Natural Capitalism from Lovins and Hawkings.	<b>Communist, Authoritarian Socialism:</b> The state is in the best position to know what choices and policies are beneficial for the economy as a whole and its component parts. (Public ownership of goods and services)	(f) Governments should adopt a hands-off stance because interference disrupts the ability of markets to produce utility-maximizing conditions.(4,4)	Animal spirits deflect economic decision-making away from perfect utility maximizing. They include confidence, fairness, corruption, money illusion, and stories.(4,5)
(5,1)	(5,2)	(5,3)	(5,4)	Ghoshal: bad management theories are destroying good management practices as they become self-fulfilling prophecies. Ghoshal is especially critical of agency theory, compliance/punitive approaches to corporate governance, and the theory of human nature he calls "Homo Economicus."(5,5)

Table 5.7

### Information Environment: Collecting, Storing, and Transferring Information

<b>Information Environment</b> (1,1)	<b>Description</b> (1,2)	<b>Examples</b> (1,3)	<b>Frameworks</b> (1,4)	<b>Frameworks</b> (1,5)
(2,1)	How data and information is collected, stored, and transmitted along with ethical issues such as informed consent and privacy that accompany information management (2,2)	<b>Informed Consent:</b> Obtaining consent from information holder when collecting, storing, and transferring personal identifying information or transaction generated information.(2,3)	<b>Privacy in Context</b> (2,4)	<b>Data Transfer and Informed Consent</b> (2,5)
(3,1)	(3,2)	<b>Belmont Report:</b> (a) Principles: Respect for persons, beneficence, and justice; (b) Application 1: Informed consent as "subjects to the degree that they are capable be given the opportunity to choose what shall or shall not happen to them;" (c) Application 2: assessment of risks and benefits; (d) Application 3: Selection of subjects for experiment.(3,3)	(a) Identify individuals in groups in a context; (b) Identify the roles played by these individuals and groups.(3,4)	<b>Opt-in:</b> Information is not transferred unless data-holder expressly consents; <b>Opt-out:</b> Data will be transferred unless holder expressly refuses or withdraws consent.(3,5)
<i>continued on next page</i>				

(4,1)	(4,2)	<b>Conditions of Informed Consent</b> Information, Comprehension, Voluntariness.(4,3)	(c) Identify context-relative norms that guide activities within context and between one context and another. (Materials on privacy in context are taken from Helen Nissenbaum in her book, <b>Privacy in Context</b> (4,4)	<b>Fair Information Practices:</b> (a) Notice: full disclosure and redress (way to resolve problems); (b) Choice: Choice about how information is to be used; (c) Access: access to stored and about to be disclosed information; (d) Security: ways that information will be kept secure and unauthorized access prevented in collection, storage, and transfer of information.(4,5)
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Table 5.8



**System of the Natural Environment**

<b>Natural Environment</b> (1,1)	<b>Description</b> (1,2)	<b>Examples</b> (1,3)	<b>Frameworks</b> (1,4)	<b>Frameworks</b> (1,5)
(2,1)	<b>Wicked Problems</b> (2,2)	<b>Principles of Systainability</b> according to B. Norton(2,3)	<b>Four Theoretical Approaches to Environmental Ethics</b> (2,4)	<b>Environmental Value</b> as determined by shadow markets(2,5)
(3,1)	(a) Difficulties in formulating and structuring problem; (b) Non-compatibility of solutions (several ways of stating solutions).(3,2)	<b>Precautionary Principle:</b> "in situations of high risk and high uncertainty,always choose the lowest risk option." (Cass Sunstein distinguishes several senses of the PP including one which makes it impossible to deviate from the status quo) (Norton 348)(3,3)	(a) <b>Extensionism:</b> Peter Singer's extension of Utilitarianism to cover sentient beings; (b) Tom Regan's ascription of rights to select animals. <b>Biocentrism:</b> Taylor's attribution of moral consideration to all teleological centers of a life.(3,4)	<b>Willingness-to-pay:</b> Resource in question would go to the highest bidder, that is, value is dependent on most intense preference and the disposable income to assert that preference(3,5)
(4,1)	(c) Wicked problems are "non-repeatable" in that they are context-dependent. This renders learning from previous problems and solutions much more difficult; (d) Wicked problems involve "competing values" that cannot be realized at the same time and that cannot be homogenized or plotted on a single scale; (e) Wicked problems exhibit "open-ended inter-temporal effects". <b>Closely paraphrased from Norton, Systainability, 133-5</b> (4,2)	<b>Safe Minimum Standard:</b> "save the resource, provided the costs of doing so are bearable" (Norton 346)(4,3)	<b>Land Ethics:</b> A thing has value or is good insofar as it promotes the integrity, stability, and beauty of the biotic community. Biotic community includes humans, non-humans, species, and ecosystems all interacting as a system. From Aldo Leopole, Sand County Almanac; <b>Virtue Environmental Ethics:</b> Approach centers on virtues as habits that promote sustainable transactions with the natural environment. Hursthouse provides a provocative example with the virtue, respect for nature.(4,4)	<b>Willingness-to-sell:</b> Resource is owned by the public so its value is determined by its selling rather than buying price. This frees bid from disposable income. Now value becomes more reflective of the identity-conferring beliefs and attitudes of a community and its members.(4,5)

Table 5.9

### 5.1.4

#### Ethics of STS Research

- **Right of Free and Informed Consent:** This is the right of participants in a research project to know the harms and benefits of the research. It also includes the right not to be forced to participate in a project but, instead, offer or withdraw voluntarily their consent to participate. When preparing a STS analysis, it is mandatory to take active measures to facilitate participants's free and informed consent.
- Any STS analysis must take active measures to recognize potential harms and minimize or eliminate them. This is especially the case regarding the information that may be collected about different individuals. Special provisions must be taken to maintain confidentiality in collecting, storing, and using sensitive information. This includes careful disposal of information after it is no longer needed.

### 5.1.5 Participatory Observation

- As we said above, a socio-technical system (STS) is “an intellectual tool to help us recognize patterns in the way technology is used and produced.” Constructing these tools requires combining modes of analysis that are ordinarily kept separate. Because STSs embed values, they are normative. These values can help to chart out trajectories of change and development because they outline values that the system needs to realize, maintain, or even enhance. In this way, the study of STSs is normative and a legitimate inquiry for practical and professional ethics. On the other hand, STS analysis requires finding out what is already there and describing it. So STS analysis is descriptive as well. In this textbox, we will talk briefly about the descriptive or empirical components of STS analysis. This material is taken from the draft manuscript of Good Computing: A Virtue Approach to Computer Ethics and has been developed by Chuck Huff.
- **Interviews:** Semi-Structured and Structured Interviews conducted with those familiar with a given STS provide an excellent source of information on the constituents of a given STS and how these fit together into an interrelated whole. For example, the STS grid on power systems was put together by experts in this area who were able to provide detailed information on power rates and protocols, software used to distribute energy through the gridlines, and different sources (representing both hard and soft technologies) of power generation.
- **Field Observation:** Those constructing a STS analysis go directly to the system and describe it in its day-to-day operation. Two books provide more information on the types and techniques of field observation: 1. David M. Fetterman, *Ethnography: 2nd Edition, Applied Social Research Methods Series, Vol 17*. London, UK.: Sage Publishers, 1998 and 2. James P. Spradley, *Participant Observation*. New York, Harcourt, 1980. The data collected in this method can also be used to construct day-in-the-life scenarios that describe how a given technology functions on a typical day. These scenarios are useful for uncovering value conflicts and latent accidents. See James T. Reason, *Human Error*, Cambridge, UK.: Cambridge University Press, 1990 for information on latent accidents, how they are detected, and how they are prevented.
- **Questionnaires:** Questionnaires are useful for gathering general information from large numbers of people about a STS. Constructing good questionnaires is a difficult process that requires patience as well as trial and error. (Trying out questions on classmates and friends is the best way to identify unclear or misleading questions.) Avoiding complex, overly leading, and loaded questions represent a few of the challenges facing those who would construct useful questionnaires.
- **Archival and physical trace methods:** Looking at user manuals provides insight into how a system has been designed and how it works. Studying which keys are worn down on computer keyboards provides information on the kind of work being done. Comparing how a system is intended to work

with how it is in fact being used is also illuminating, especially when one is interested in tracing the trajectory of a STS. Working with archival and physical trace methods requires critical thought and detective work.

- None of the above methods, taken in isolation, provides complete information on a STS. Triangulation represents the best way to verify data and to reconcile conflicting data. Here we generate evidence and data from a variety of sources then compare and collate. Claims made by interviewees that match direct on-site observations confirm one another and indicate data strength and veracity. Evidence collected through questionnaires that conflicts with evidence gathered through archival research highlights the need for detective work that involves further observation, comparison, interpretation, and criticism.
- Developing STS analyses bears a striking resemblance to requirements analysis. In both cases, data is collected, refined, and put together to provide an analysis. A key to success in both is the proper combination of normative and descriptive procedures.

### 5.1.6 Exercise 1: Make a Table that Describes the Socio-Technical System

**Directions:** Identify the constituents of the Socio-Technical System. Use the broad categories to prompt you.

1. What are the major hardware and software components?
2. Describe the physical surroundings.
3. What are the major people groups or roles involved?
4. Describe any procedures in the STS.
5. Itemize the laws, statutes, and regulations.
6. Describe the data and data structures in your STS. Use the two templates below that fill in this table for energy generation systems and for engineering ethics in Puerto Rico.

**Socio Technical System Table**

	<b>Hard- ware</b>	<b>Software</b>	<b>Physical Sur- round- ings</b>	<b>People, Groups, Roles</b>	<b>Procedures</b>	<b>Laws</b>	<b>Data and Data Struc- tures</b>

**Table 5.10**

### 5.1.7 Exercise 2: Identify Value Mismatches in the STS

**Directions:** identify the values embedded in the STS. Use the table below to suggest possible values as well as the locations in which they are embedded.

1. **Integrity:** "Integrity refers to the attributes exhibited by those who have incorporated moral values into the core of their identities. Such integration is evident through the way values denoting moral excellence permeate and color their expressions, actions, and decisions. Characteristics include wholeness, stability, sincerity, honesty to self and others, suthenticity, and striving for excellence.

2. **Justice:** Justice as fairness focuses on giving each individual what is his or her due. Three senses of justice are (1) the proper, fair, and proportionate use of sanctions, punishments and disciplinary measures to enforce ethical standards (retributive justice), (2) the objective, dispassionate, and impartial distribution of the benefits and burdens associated with a system of social cooperation (distributive justice), (3) an objectively determined and fairly administered compensation for harms and injustices suffered by individuals (compensatory justice), and (4) a fair and impartial formulation and administration of rules within a given group.
3. **Respect:** Respecting persons lies essentially in recognizing their capacity to make and execute decisions as well as to set forth their own ends and goals and integrate them into life plans and identities. Respects underlies rights essential to autonomy such as property, privacy, due process, free speech, and free and informed consent.
4. **Responsibility:** (Moral) Responsibility lies in the ability to identify the morally salient features of a situation and then develop actions and attitudes that answer to these features by bringing into play moral and professional values. Responsibility includes several senses: (1) individuals are responsible in that they can be called upon to answer for what they do; (2) individuals have responsibilities because of commitments they make to carrying out the tasks associated with social and professional roles; (3) responsibility also refers to the way in which one carries out one's obligations (This can range from indifference to others that leads to minimal effort to high care for others and commitment to excellence)
5. **Free Speech:** Free Speech is not an unlimited right. Perhaps the best place to start is Mill's argument in **On Liberty**. Completely true, partially true, and even false speech cannot be censored, the latter because censoring false speech deprives the truth of the opportunity to clarify and invigorate itself by defending itself. Mill only allows for a limitation of free speech based on harm to those at which the speech is directed. Speech that harms an individual (defamatory speech or shouting "fire" in a crowded theatre) can be censored out of a consideration of self-defense, not of the speaker, but of those who stand to be harmed by the speech.
6. **Privacy:** If an item of information is irrelevant to the relation between the person who has the information and the person who seeks it, then that information is private. Privacy is necessary to autonomy because control over information about oneself helps one to structure and shape one's relations with others.
7. **Property:** According to Locke, we own as property that with which we have mixed our labor. Thomas Jefferson argues that ideas are problematic as property because, by their very nature, they are shared once they are expressed. They are also nonrivalrous and nonexclusive.

### Drawing Problems from Embedded Values

- Changes in a STS (e.g., the integration of a new technology) produce value mismatches as the values in the new component conflict with those already existing within the STS. Giving laptops to children produces a conflict between children's safety requirements and the safety features embedded in laptops as designed for adults.
- Changes within a STS can exaggerate existing value conflicts. Using digitalized textbooks on laptop computers magnifies the existing conflict concerning intellectual property; the balance between copyrights and educational dissemination is disrupted by the ease of copying and distributing digitalized media.
- Changes in STS can also lead to long term harms. Giving laptops to children threatens environmental harm as the laptops become obsolete and need to be safely disposed of.

### Values Embedded in STS

	Hard-ware	Software	Physical Sur-round-ings	People, Groups, Roles	Procedures	Laws	Data and Data Struc-tures
Integrity							
Justice							
Respect							
Responsibility for Safety							
Free Speech							
Privacy							
Intellectual Property							

Table 5.11

### 5.1.8 Using Socio-Technical System Grids for Problem Specification

The activity of framing is a central component of moral imagination. Framing a situation structures its elements into a meaningful whole. This activity of structuring suggests both problems and solutions. Framing a situation in different ways offers alternative problem specifications and solution possibilities. Since skillful framing requires practice, this part of the module suggests how socio-technical system tables can help provide different frames for problem specification and solution generation.

#### Different Problem Frames

- **Technical Frame:** Engineers frame problems technically, that is, they specify a problem as raising a technical issue and requiring a technical design for its resolution. For example, in the STS grid appended below, the Burger Man corporation wishes to make its food preparation areas more safe. Framing this technically, it would be necessary to change the designs of ovens so they are more accident-proof.
- **Physical Frame:** How can the Burger Man corporation redesign its restaurants as physical facilities to make them more accessible? One way is to change the access points by, say, designing ramps to make restaurants wheel chair accessible. Framing this as a physical problem suggests solutions based on changing the physical structure and arrangement of the Burger Man STS.
- **Social Frame:** Burger Man as a corporation has stakeholders, that is, groups or individuals who have an essential interest at play in relation to the corporation. For example, framing the problem of making Burger Man more safe as a social problem might suggest the solution of integrating workplace safety into worker training programs and conducting regular safety audits to identify embedded risks.
- **Financial or Market-Based Frames:** Burger Man is a for-profit corporation which implies that it has certain financial responsibilities. Consequently, Burger Man should be concerned with how to provide safe, child-proof chairs and tables that do not cut unduly into corporate profits. But like the legal perspective, it is necessary to conduct ethical and social framing activities to compensate for the one-sidedness of financial framing.
- **Managerial Frame:** Many times ethical problems can be framed as managerial problems where the solution lies in changing managerial structures, reporting relations, and operating procedures. For example, Burger Man may develop a specific procedure when a cashier finishes a shift and turns over the cash register and its contents to another cashier. Burger Man may develop cleaning procedures and routines to minimize the possibility of serving contaminated or spoiled food to customers.

- **Legal Frame:** Burger Man may choose to frame its environmental responsibilities into developing effective procedures for complying with OSHA and EPA regulations. Framing a problem legally certainly helps to identify effective and necessary courses of action. But, because the ethical and social cannot be reduced to the legal, it is necessary to apply other frames to uncover additional risks not suggested by the legal framing.
- **Environmental Framing:** Finally, how does Burger Man look from the environmental standpoint? Does it consider environmental value (environmental health, safety, and integrity) as merely a side constraint to be addressed only insofar as it interferes with realizing supposedly more important values such as financial values? Is it a value to be traded off with other values? (For example, Burger Man may destroy the local environment by cutting down trees to make room for its latest restaurant but it offsets this destruction through its program of planting new trees in Puerto Rican tropical rain forests.) Framing a problem as an environmental problem puts the environment first and sets as a goal the integration of environmental values with other values such as worker safety and corporate profits.

### Burger Man Socio-Technical System Table

This media object is a downloadable file. Please view or download it at  
 <Socio Technical System Grid for Business Ethics.docx>

**Figure 5.1:** Clicking on this figure will open as a Word file a STS table based on the fictional corporation, Burger Man. Below are a list of problems suggested by the STS analysis.

#### 5.1.9 Media File Uplinks

This module consists of two attached Media Files. The first file provides background information on STSs. The second file provides two sample STS grids or tables. These grids will help you to develop specific STSs to analyze cases in engineering, business, and computer ethics without having to construct a completely new STS for each case. Instead, using the two tables as templates, you will be able to zero in on the STS that is unique to the situation posed by the case. This module also presents background constraints to problem-solving in engineering, business, and computer ethics. These constraints do not differ absolutely from the constituents of STSs. However, they pose underlying constraints that outline the feasibility of an ethical decision and help us to identify obstacles that may arise when we attempt to implement ethical decisions.

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### Socio-Technical Systems

This media object is a downloadable file. Please view or download it at  
 <STS\_Background\_V3.doc>

**Figure 5.2:** Socio-Technical Systems: Constituents, Values, Problems, and Constraints.

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### STS Templates

This media object is a downloadable file. Please view or download it at  
<STS\_Templates.doc>

**Figure 5.3:** Two STSs, Power Engineering and the Puerto Rican Context of Engineering Practice.

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### Socio-Technical Environments Table

[MEDIA OBJECT]<sup>2</sup>

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## 5.2 Theory Building Activities: "Responsibility and Incident at Morales"<sup>3</sup>

### 5.2.1 Module Introduction

#### 5.2.1.1 Getting Started...

Manuel, plant manager at the Phaust chemical plant in Morales, Mexico, has just died. While he was babysitting the process of manufacturing Phaust's new paint remover (monitoring on site temperature and

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<sup>2</sup>This media object is a downloadable file. Please view or download it at  
<STS2.pdf>

<sup>3</sup>This content is available online at <<http://cnx.org/content/m15627/1.7/>>.

pressure conditions) an explosion occurred that killed him instantly. The Mexican government has formed an independent commission to investigate this industrial accident.

This commission (headed by your instructor) has ordered key participants to testify on their role in the accident in a public hearing. Your job is to present before this commission from a stakeholder point of view. You will be divided into groups to role play the following stakeholder perspectives:

- Fred, the chief engineer involved in designing the plant,
- plant workers,
- officials from Mexican government regulatory agencies,
- Phaust management,
- representatives from the parent French company,
- officials presiding over an engineering professional society.

You will be assigned roles and given class time to prepare presentations for the commission. Then the class will enact the public hearing by having each group give a presentation from the perspective of its assigned role. Following these presentations, groups will answer questions from the investigating commission. Finally, you will work through debriefing activities to help solidify your practical understanding of the module's chief concepts. Background materials designed to help you with your presentations include sketches of moral responsibility, links to the "Incident at Morales" Case, tasks to help structure your role-playing, and activities to debrief on this exercise. This module is designed to help you learn about moral responsibility by using responsibility frameworks to make day-to-day decisions in a realistic, dynamic, business context.

#### 5.2.1.1.1 Before You Come to Class...

1. Visit the link to the National Institute for Engineering Ethics. Look at the study guide and download the script for the video, "Incident at Morales." You want to have some idea of what happens in the video before you watch it.
2. Read the module. Pay special attention to the section on "What you need to know." Here you will read summaries of three senses of moral responsibility: blame responsibility, sharing responsibility, and responsibility as a virtue. Your goal here is not to understand everything you read but to have a general sense of the nature of moral responsibility, the structure of the responsibility frameworks you will be using in this module, and the difference between moral and legal responsibility. Having this background will get you ready to learn about moral responsibility by actually practicing it.
3. Come to class ready to watch the video and start preparing for your part in the public hearing. It is essential that you attend all four of these classes. Missing out on a class will create a significant gap in your knowledge about and understanding of moral responsibility.

### 5.2.2 What you need to know...

"Responsibility" is used in several distinct ways that fall under two broad categories, the reactive and the proactive. Reactive uses of responsibility refer back to the past and respond to what has already occurred. (Who can be praised or blamed for what has occurred?) Proactive uses emerge through the effort to extend control over what happens in the future. An important part of extending control, knowledge, and power over the future is learning from the past, especially from past mistakes. But proactive responsibility also moves beyond prevention to bringing about the exemplary. How do occupational and professional specialists uncover and exploit opportunities to realize value in their work? Proactive responsibility (responsibility as a virtue) explores the skills, sensitivities, motives, and attitudes that come together to bring about excellence.

#### 5.2.2.1 Different meanings of Responsibility

##### Reactive Senses



1. **Causal Responsibility** refers to prior events (called causes) which produce or prevent subsequent events (called effects). Cheap, inaccurate sensors (cause) required that Manual be present on the scene (effect) to monitor the high temperatures and pressures required to correctly prepare Phaust's paint stripper.
2. **Role Responsibility** delineates the obligations individuals create when they commit to a social or professional role. When Fred became an engineer he committed to holding paramount the health, safety and welfare of the public. (See NSPE code of ethics)
3. **Capacity Responsibility** sets forth those conditions under which someone can be praised or blamed for their actions. Praise and blame associate an agent with an action. Excuses are based on means for separating or disassociating an agent from their actions. Capacity responsibility helps us determine whether there are any legitimate excuses available for those who would disassociate themselves from untoward, harm-causing actions.
4. **Blame Responsibility** determines when we can legitimately praise or blame individuals for their actions.

### Proactive Senses

1. **Sharing Responsibility** extends the sphere of responsibility to include those to whom one stands in internal relations or relations of solidarity. Shared responsibility includes answering for the actions of others within one's group. It also includes coming to the moral aid of those within one's group who have gone morally astray; this involves bringing to their attention morally risky actions and standing with them when they are pressured for trying to uphold group values. While sharing responsibility entails answering for what members of one's group have done, it does not extend to taking the blame for the untoward actions of colleagues. Sharing responsibility does not commit what H.D. Lewis calls the "barbarism of collective responsibility" which consists of blaming and punishing innocent persons for the guilty actions of those with whom they are associated.
2. **Preventive Responsibility:** By using knowledge of the past, one can avoid errors or repeat successes in the future. Peter French calls this the "Principle of Responsive Adjustment." (One adjusts future actions in response to what one has learned from the past.) According to French, responsive adjustment is a moral imperative. If one fails to responsively adjust to avoid the repetition of past untoward results, this loops back into the past and causes a revaluation of the initial unintentional action. The benefit of the doubt is withdrawn and the individual who fails to responsively adjust is now held responsible for the original past action. This is because the failure to adjust inserts the initial action into a larger context of negligence, bad intentions, recklessness, and carelessness. Failure to responsively adjust triggers a retroactive attribution of blame.
3. **Responsibility as a Virtue:** Here one develops skills, acquires professional knowledge, cultivates sensitivities and emotions, and develops habits of execution that consistently bring about value realization and excellence. One way of getting at responsibility as an excellence is to reinterpret the conditions of imputability of blame responsibility. An agent escapes blame by restricting the scope of role responsibility, claiming ignorance, and citing lack of power and control. In responsibility as a virtue, one goes beyond blame by extending the range of role responsibilities, seeking situation-relevant knowledge, and working to skillfully extending power and control.

#### 5.2.2.2 Blame Responsibility

To hold Fred responsible for the accident at Morales, we need to...

1. Specify his role responsibilities and determine whether he carried them out
2. Identify situation-based factors that limited his ability to execute his role responsibilities (These are factors that **compel** our actions or contribute to our **ignorance** of crucial features of the situation.)
3. Determine if there is any moral fault present in the situation. For example, did Fred act on the basis of **wrongful intention** (Did he intend to harm Manuel by sabotaging the plant?), fail to exercise **due care**, exhibit **negligence or recklessness**?

4. If Fred (a) failed to carry out any of his role responsibilities, (b) this failure contributed to the accident, and (c) Fred can offer no morally legitimate excuse to get himself off the hook, then Fred is blameworthy.

Fred, and other Incident at Morales stakeholders, can escape or minimize blame by establishing morally legitimate excuses. The following table associates common excuses with the formal conditions of imputability of blame responsibility. (Conditions of imputability are those conditions that allow us to associate an action with an agent for purposes of moral evaluation.)

Excuse Table

Excuse Source (Capacity Responsibility)	Excuse Statement
Conflicts within a <b>role responsibility</b> and between different role responsibilities	I cannot, at the same time, carry out all my conflicting role responsibilities
<b>Hostile Organizational Environment</b> which routinely subordinates ethical to financial considerations.	The environment in which I work makes it impossible to act responsibly. My supervisor routinely overrules my professional judgment, and I can do nothing about it.
Overly determining situational constraints: financial and time	I lack the time and money to carry out my responsibility.
Overly determining situational constraints: technical and manufacturing	Carrying out my responsibility goes beyond technical or manufacturing limits.
Overly determining situational constraints: personal, social, legal, and political.	Personal, social, legal or political obstacles prevent me from carrying out my responsibilities.
Knowledge Limitations	Crucial facts about the situation were kept from me or could not be uncovered given even a reasonable effort.

Table 5.12

### 5.2.2.3 Proactive Responsibility

#### Preventive Responsibility: Responsive Adjustment

- Responsibility to adjust future actions in response to what has been learned from the past
- **Scenario One:** Past actions that have led to untoward results. Failure here to adjust future actions to avoid repetition of untoward results leads to reassessing the original action and retrospectively blaming the agent.
- **Scenario Two:** Past actions have unintentionally and accidentally led to positive, value-realizing results. Here the agent responsively adjusts by being prepared to take advantage of being lucky. The agent adjusts future actions to repeat past successes. In this way, the agent captures past actions (past luck) and inserts them into the scope of praise.
- **Nota Bene:** The principle of responsible adjustment sets the foundation for responsibility in the sense of prevention of the untoward.

#### Responsibility as a Virtue or Excellence

1. Virtues are excellences of the character which are revealed by our actions, perceptions, beliefs, and attitudes. Along these lines, responsibility as a virtue requires that we reformulate responsibility from its reactive, minimalist sense (where it derives much of its content from legal responsibility) to responsibility as an excellence of character.

2. Aristotle situates virtues as means between extremes of excess and defect. Can you think of examples of too much responsibility? (Does Fred try to take on too much responsibility in certain situations?) Can you think of anyone who exhibits too little responsibility. (Does Fred take on too little responsibility or shift responsibility to others?) For Aristotle, we can have too much or too little of a good thing. From the "too much" we derive vices of excess. from the "too little" we derive the vices of defect.
3. Virtues are more than just modes of reasoning and thinking. They also consist of emotions that clue us into aspects of the situation before us that are morally salient and, therefore, worthy of our notice and response. Two emotions important for responsibility are care and compassion. Care clues us into aspects of our situation that could harm those who depend on our actions and vigilance. Do Wally and Fred pay sufficient attention to the early batch leakages in the Morales plant? If not, does this stem from a lack of care ("Let operations handle it") and a lack of compassion ("Manuel can take care of himself")? Care and compassion help to sensitize us to what is morally salient in the situation at hand. They also motivate us to act responsibly on the basis of this sensitivity.
4. Responsibility as a virtue manifests itself in a willingness to pick up where others have left off. After the Bhopal disaster, a worker was asked why, when he saw a cut-off valve open, he didn't immediately close it as safety procedures required. His response was that shutting off the valve was not a part of his job but, instead, the job of those working the next shift. This restriction of responsibility to what is one's job creates responsibility gaps through which accidents and other harms rise to the surface. The worker's lack of action may not constitute moral fault but it surely signifies lack of responsibility as a virtue because it indicates a deficiency of care and compassion. Those who practice responsibility as a virtue or excellence move quickly to fill responsibility gaps left by others even if these tasks are not a part of their own role responsibilities strictly defined. Escaping blame requires narrowing the range of one's role responsibilities while practicing responsibility as a virtue often requires effectively expanding it.
5. Finally, responsibility as an excellence requires extending the range of knowledge and control that one exercises in a situation. Preventing accidents requires collecting knowledge about a system even after it has left the design and manufacturing stages and entered its operational life. Responsibility requires that we search out and correct conditions that could, under the right circumstances, produce harmful accidents. Moreover, responsibility is a function of power and control. Extending these and directing them toward good results are clear signs of responsibility as a virtue.

### Responsibility as Virtue

- The Incident at Morales provides us with a look into a fictionalized disaster. But, if it is examined more carefully, it also shows opportunities for the exercise of responsibility as a virtue. The following table will help you to identify these "responsibility opportunities" and allow you to imagine counterfactuals where had individuals acted otherwise the "incident" could have been avoided and moral value could have been realized.
- Think of virtuous or even heroic interventions that could have prevented the accident. These represents, from the standpoint of the film, lost opportunities for realizing responsibility and other virtues.

#### Responsibility as a Virtue: Recovering Lost Opportunities

Characteristic	Relevance to Incident at Morales
Change goal from avoiding blame to pursuing professional excellence.	Could this have led participants to look for more creative responses to EPA environmental regulations?
<i>continued on next page</i>	

Develop a flexible conception of your role responsibilities and move quickly to extend it to fill responsibility gaps left by others.	Could this have structured differently the relation between those responsible for plant design/construction and those responsible for its operation?
Extend the scope and depth of your situational knowledge, especially regarding accumulating information on the operational history of newly implemented technologies.	Would this have led to further follow-up on the early signs of leakage of the couplings?
Extend control and power. This includes finding ways of more effectively communicating and advocating ethical and professional standards in the context of group-based decision-making.	Could Fred have handled more proactively the last minute change in the chemical formulation of the paint remover?

Table 5.13

### Section Conclusion

Integrate the retroactive and proactive senses of responsibility into your group's presentation for the public hearing. Don't just work on the reactive approach, i.e., try to avoid blame and cast it on the other stakeholder groups. Think proactively on how to prevent future problems, respond to this accident, and turn the events into positive opportunities to realize value.

### Questions to Get Started

- Is Fred (blame) responsible for the accident and even Manuel's death? (Use the conditions of imputability and the excuse table to get started on this question.)
- Did Wally and Chuck evade their responsibility by delegating key problems and decisions to those, like plant manager Manuel, in charge of operations? (Start the answer to this question by determining the different role responsibilities of the stakeholders in this situation.)
- What kind of responsibility does the parent French company bear for shifting funds away from Phaust's new plant to finance further acquisitions and mergers? (Looking at the modules on corporate social responsibility and corporate governance will help you to frame this in terms of corporate responsibility.)
- Do engineering professional societies share responsibility with Fred? (The CIAPR and NSPE codes of ethics will help here. Try benchmarking corporate codes of ethics to see if they provide anything relevant.)
- Look at the positive, proactive moral responsibilities of professional societies. What can they do to provide moral support for engineers facing problems similar to those Fred faces? Think less in terms of blame and more in terms of prevention and value realization.

## 5.2.3 Presentation on Moral Responsibility

[MEDIA OBJECT]<sup>4</sup>

## 5.2.4 What you are going to do...

In this module, you will...

1. apply and integrate the concept of moral responsibility (blame responsibility, sharing responsibility, responsibility as a virtue) to situations that arise in the video, "Incident at Morales."
2. learn the basic facts, character profiles, and decision-situations portrayed in the video, "Incident at Morales." You will see the video in class and examine the script and Study Guide at the NIEE website.

<sup>4</sup>This media object is a downloadable file. Please view or download it at  
<Moral Responsibility.pptx>

3. work in groups to develop and play a stakeholder role in a fictional public hearing. Your group's specific tasks are outlined below in one of the group profiles provided. In general, you will prepare a statement advancing your group's interests and points of view. The responsibility frameworks will help you anticipate questions, prepare responses, and defend your role against those in other roles who may try to shift the blame your way. But most important, this module provides tools to help you go beyond the reactive, blame standpoint.
4. participate in a mock public hearing by playing out your group's assigned role.
5. work with the other groups to debrief on this activity. The public hearing will generate a lot of information, ideas, and positions. Debriefing will help you to structure and summarize this material. The objective here is to learn by doing. But to truly learn from what you have done, you need to reflect carefully.

#### **5.2.4.1 Stakeholder Roles**

##### **Mexican Government Regulatory Agencies**

- Look at OSHA regulations on safety. Do any of these apply to the incident at morales. Pay particular attention to responsibilities for providing safe working conditions and to mandated procedures for accident prevention. How as a government agency can you encourage companies to take active and positive measures to increase workplace safety and prevent accidents?
- Look at EPA or JCA for ideas on environmental issues. What are Phaust's responsibilities regarding local environmental conditions? (Should the Mexican government require lining waste water ponds?)
- As an official representing Mexican government regulatory agencies, how do you balance the safety and environmental needs of Mexican citizens and workers with the need to attract foreign companies and investors to Mexico to promote economic development. Should safety and environmental values ever be traded off to promote economic development?

##### **Workers at Morales Plant**

- Manuel, your plant manager, has just died. You and your co-workers are concerned about the safety of this new plant. Can you think of any other issues that may be of concern here?
- Develop a statement that summarizes your interests, concerns, and rights. Are these being addressed by those at Phaust and the parent company in France?
- The Mexican Commission established to investigate this "incident" will ask you questions to help determine what cause it and who is to blame. What do you think some of these questions will be? How should you respond to them? Who do you think is to blame for the incident and what should be done in response?

##### **Designing Engineer: Fred**

- Examine Fred's actions and participation from the standpoint of the three responsibility frameworks mentioned above.
- Develop a two minute position paper summarizing Fred's interests, concerns, and rights.
- Anticipate questions that the Commission might raise about Fred's position and develop proactive and effective responses..
- Be sure to use the three responsibility frameworks. Is Fred to blame for what happened? In what way? What can professional societies do to provide moral support to members in difficult situations? How can interested parties provide moral support? Finally, what opportunities arose in the video practicing moral responsibility as a virtue? (Think about what an exemplary engineer would have done differently.)

##### **Phaust Management: Wally and Chuck**

- Chuck and Walley made several decisions reponding to the parent company's budget cuts that placed Fred under tight constraints. Identify these decisions, determine whether there were viable alternatives, and decide whether to justify, excuse, or explain your decisions.
- Develop a two minute position paper that you will present to the commission.
- Anticipate Commission questions into your responsibility and develop effective responses to possible attempts by other groups to shift the blame your way.

#### Corporate Governance: French Parent Company

- You represent the French owners who have recently required Phaust Chemical. You have recently shifted funds from Phaust operations to finance further mergers and acquisitions for your company.
- What are your supervisory responsibilities in relation to Phaust?
- Develop a preliminary two minute presentation summarizing your position and interests.
- Anticipate likely commission questions along with possible attempts by other groups to shift the blame your way.

#### Engineering Professional Society

- You represent the professional engineering society to which Fred belongs.
- Develop a two minute presentation that outlines your group's interests and position.
- Anticipate possible Commission questions, develop responses, and anticipate attempts by other groups to shift the blame your way.
- Respond to whether your professional society should extend moral support to engineers in difficult positions like Fred's. Should they clarify code provisions? Provide legal support and counseling? Make available a professional/ethical support hotline?

#### Investigative Commission

This role will be played by your instructor and other "guests" to the classroom. Try to anticipate the commissions questions. These will be based on the conditions of blame responsibility, the principle of responsive adjustment, and responsibility as a virtue.

#### 5.2.4.2 Module Time Line

- Module Preparation Activities: Read module and visit [niee.org](http://niee.org) to get general orientation to "Incident at Morales"
- **Class One:** Watch Video. Receive group role. Begin preparing your group role.
- **Class Two:** Work within your group on preparing your group's statement, anticipating questions, and developing responses.
- **Class Three:** Participate in the Public Hearing. The group representing the Mexican Commission will convene the public hearing, listen to the group's statements, ask questions, and prepare a brief presentation on the Commission's findings
- **Class four:** Class will debrief on the previous class's public hearing. This will begin with the Commission's findings

### 5.2.5 Incident at Morales and Jeopardy

#### Jeopardy and Incident at Morales

[MEDIA OBJECT]<sup>5</sup>

#### Jeopardy on Socio-Technical Systems in Incident at Morales

[MEDIA OBJECT]<sup>6</sup>

<sup>5</sup>This media object is a downloadable file. Please view or download it at [<Jeopardy\\_IM.pptx>](#)

<sup>6</sup>This media object is a downloadable file. Please view or download it at [<Jeopardy\\_SOV\\_IM.pptx>](#)

### 5.2.6 What have you learned?

**Listen to the findings of the Mexican Government Commission. Write a short essay responding to the following questions. Be prepared to read parts of your essay to your professor and to your classmates.**

1. Do you agree with the Commission's findings? Why or why not? Be sure to frame your arguments in terms of the responsibility frameworks provided above.
2. Were there any opportunities to offer Fred moral support by those who shared responsibility with him? What were these opportunities. How, in general, can professional societies support their members when they find themselves in ethically difficult situations?
3. What opportunities arise for exercising responsibility as an excellence? Which were taken advantage of? Which were lost?
4. Finally, quickly list themes and issues that were left out of the public hearing that should have been included?

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# Chapter 6

## Technical Environment

### 6.1 Responsible Choice for Appropriate Technology<sup>1</sup>

#### 6.1.1 I. Introduction

The goal of this module is to help you to think about technology in a different way. We tend to think of technologies as value-neutral tools not good by themselves but only in terms of the uses we put them to. The moral value of the hammer depends on the user and use. It can push nails into wood to build a house or hit someone on the head expressing unjustified anger and aggression against another.

But technologies are more than just value neutral tools. They are enacted in different worlds characterized by our activities, projects, institutions, cultures, and physical environments. At times they become extensions of our hands and feet and are called prosthetics. At other times, when they fail to fulfill the functions we have assigned them, they become obstacles that thwart or oppose our desires. (In the hands of the carpenter, the hammer pounds nails quickly and flawlessly into roof tile while the inexperienced home improver finds it a clumsy tool that bends nails.) Wanda Orlikowski encourages us to think of technologies less as external objects and more as enactments. She presents a case study that shows how a word processing program takes on four very different value colorings as it is enacted in each of four different socio-technical systems. This module is designed to help you to visualize how technologies that shape, magnify, extend, and constrain human activity. (See Orlikowski below.)

#### **Some other goals**

In this module you will...

- examine cases where a community exercises technological choice
- practice socio-technical sensitivity by describing the socio-technical system that underlies your group's case
- learn frameworks that guide the choice of appropriate technology
- develop an active understanding of how technologies form one environment alongside other environments that shape, enable, magnify, circumscribe, and constrain human action

#### 6.1.2 II. What you need to know.

##### **Responsibility in the context of technological choice.**

Herbert Fingarette in the Meaning of Criminal Insanity (see below) characterizes moral responsibility as (moral) response to (moral) relevance. This means responsibility is a skill that combines two components. First one exercises techno-social sensitivity to uncover those aspects of a situation that have moral relevance. To a person sitting on a crowded bus, of all the things going on, the fact that an older man is awkwardly

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m43922/1.24/>>.

standing, uncomfortable and holding several boxes, is morally relevant. Picking this out of a complex situation draws upon a sophisticated set of emotional, cognitive, and perceptual skills. Second, having focused on what is morally relevant in a situation, a responsible agent then sets about devising action that is responsive to this relevance. The individual on the crowded bus, in response to the relevance of the man awkwardly standing, stands up and offers him a seat. Socio-technical System description and analysis provide a formal way of uncovering moral relevance in a concrete situation. This module will give you an opportunity to practice this skill. The value realization framework laid out in this module(see Flanagan, Howe, and Nissenbaum below), provides a structure for using value realization as a response to relevance. This part of the module will get you thinking about how to develop value realizing actions that respond to the relevance uncovered in STS description. See Harris below for a description of techno-socio sensitivity that falls in nicely with the account of moral responsibility as response to relevance.

Understanding appropriate technological choice requires that you learn a basic vocabulary. This section presents short, informal descriptions of “appropriate,” “technology,” “capability,” “social construction of technology,” and “technological determinism.” At the end, you will find a media file for a Jeopardy to help you learn these terms.

### Technology

*Technology:* As was said in the previous section, a technology is more than just a physical object. It is a device activated within a network of social relations called a socio-technical system. (See below for more on socio-technical systems or STSs.) Technologies are much more than value neutral tools; a technological object or artifact can become an extension of the human body, a prosthesis, that magnifies, focuses, intensifies, shapes, channels, and constrains human actions and activities. Taken by themselves they are incomplete and indeterminate; enacted within a socio-technical system, they accomplish human activities.

### Socio-Technical System

*Socio-technical System.* Determining whether a technology is appropriate requires close attention to the socio-technical background which forms a system, a “complex environment of interacting components, together with the networks of relationships among them.” According to Huff, a socio-technical system is “an intellectual tool to help us recognize patterns in the way technology is used and produced.” For example, Huff has his computing students write “Social Impact Statements” to outline the impact a computing technology would have on the socio-technical system (STS) in which it is being integrated. Students triangulate their impact claims through day-in-the-life scenarios, participatory observation, and surveys; any claim made on the impact of a technology has to be substantiated through three different methods of observation (in private conversations).

Socio-technical systems, thus, exhibit several characteristics.

- STS analysis helps us understand how occupational and professional practice is shaped and constrained by different surrounding environments.
- Socio-technical systems are first and foremost systems. While they are composed of discrete parts, these are embedded in a network of relations and interact with one another. Hence, STS description requires systemic or ecological thinking; a STS must be approached as a whole which is not reducible to the sum of its parts
- The different components of a STS can include hardware, software, physical surroundings, people/groups/roles, procedures, laws/statutes/regulations, and information systems. This list of distinguishable components varies according to context and purpose. These distinguishable components are, nevertheless, inseparable from one another. Repeating the previous point, *STSs are, first and foremost, systems.*
- STSs *embed or embed values.* This makes it possible to prepare Social Impact Statements that identify and locate embedded values, chart out potential conflicts, and recommend system adjustments to remediate these. STS analysis, thus, adds a dimension to the determination of the appropriateness of a given technology by raising the question of whether its incorporation into a specific STS leads to value conflicts or resolves value vulnerabilities.
- STSs *change* due to internal value issues as well as issues stemming from their interactions with other STSs. STS changes are directional in that they trace out trajectories or paths of change. Thus, another

test of appropriate technology is whether its integration into a STS places that system on a *positive or negative trajectory of change*.

- To repeat a point made just above, STS analysis employs *systems or ecological thinking*. Just as important as the properties of the parts that compose a socio-technical system are the relations between these parts and the ways in which they interact. These relations and interactions give rise to properties that STSs as wholes display but which cannot be found when analyzing the constituent parts in isolation from one another. Another way of putting this is that STSs require holistic think that is markedly different from what sociologists call “methodological individualism.”
- Werhane et al. in *Alleviating Poverty* provide an insightful account of systems and systems thinking. They see this as necessary in building and analyzing alliances between stakeholders devoted to diminishing poverty.

### Appropriate Technology

*Appropriate Technology*. The term “appropriate technology” comes from economist E. F. Schumacher and plays a prominent role in his book, *Small Is Beautiful*. For Schumacher, an *appropriate* technology is an *intermediate* technology which stands between the “indigenous technology of developing countries” and the “high capital intensive technology” of developed countries. Appropriate technology represents a step or a bridge that moves a community cautiously and continuously toward a developmental goal.

Thus, intermediate technology is *appropriate* in the sense that it reduces or eliminates the harmful impacts of moving too quickly from indigenous, labor intensive technology to high capital intensive technology. Technology that is appropriate to orderly, sustainable, and humane development . . .

- gives “special consideration. . .to context of use, including environmental, ethical, cultural, social, political, and economical aspects”;
- seeks simplicity as opposed to (manifest or latent) complexity;
- chooses decentralization because it is more orderly, sustainable, and human than authoritarian centralization;
- employs labor intensive as opposed to capital intensive strategies;
- addresses itself to the unique characteristics of the surrounding community
- This description of appropriate technology quotes directly from Wikipedia and from Schumacher. See below.

### Capabilities or Human Development Approach

*The Capabilities or Human Development Approach*: Technologies need to be evaluated within the context of human projects, communities, and activities. In particular, they should be evaluated in terms of whether they promote or frustrate a life of dignity that can be spelled out in terms of substantial freedoms that Amartya Sen and Martha Nussbaum term *capabilities*. Sen and Nussbaum argue that a given capability, say bodily health, can be realized in different ways. The specific way a capability is realized is called its functioning. Resources (personal, social, and natural) that help turn capabilities into functionings are called conversion factors. (A bicycle is a physical conversion factor that (under favorable conditions such as roads with decent surfaces) turn the capability of bodily integrity into movement from home to work.)

The Capabilities Approach changes the way we view developing communities and their members, replacing the view of developing communities as beset with needs and deficiencies with the view that they are repositories of valuable capabilities. Humans should strive to shape and reshape the surrounding socio-technical system to bring about the exercise and expression of fundamental human capacities. According to Nussbaum, capabilities answer the question, “What is this person able to do or be?” Nussbaum and Sen characterize capabilities as “‘substantial freedoms,’ a set of (causally interrelated) opportunities to choose and act. [T]hey are not just abilities residing inside a person but also freedoms or opportunities created by a combination of personal abilities and the political, social, and economic environment.” The Capabilities Approach, thus, adds depth to appropriate technology by providing criteria for choice; a technology derives its “appropriateness” from how it resonates with basic human capabilities and more specifically by whether it provides “conversion factors” that transforms basic capabilities into active functionings.

### Nussbaum's List

Nussbaum discusses the capabilities approach in several works most notable of which are *Frontiers in Justice* and *Creating Capabilities*. Sen lays out his version in several publications. **Development as Freedom** is referenced below. Finally, Robeyns discusses conversion factors in an article in the *Stanford Encyclopedia* referenced below.

### Basic Capabilities

- **Life**
- **Bodily Health**
- **Bodily Integrity**
- These capabilities overlap with basic rights. But the capability approach moves beyond the rights perspective by exploring the social and community-based dimensions of human agency; rights on the other hand are more individualistic. (See Werhane on this.) Bodily Integrity would include, for example, freedom from marital rape and the ability to move about freely within one's own country.

### Cognitive Capabilities

- **Sense, Imagination, Thought**
- **Emotion**
- **Practical Reason**
- **Note:** Nussbaum's description of cognitive experience is richer than that allowed through the concept of homo economicus (the economic human) avowed by economical theory. (Homo economicus is driven by a narrow view of rational self-interest.) Emotions incorporate judgment, and practical reason overlaps with the autonomous ability to formulate and carry out thoughtfully life plans. Imagination and sensation are not separate from the knowing and cognitive faculties as they are, say, for Kant but closely connected with these as they are in the ethical theory of Aristotle. Full exercise of thought, sensation, and imagination could occur in aesthetic expression or religious experience. We explore emotions imaginatively through literature, drama, and cinema.

### Social or Out-Reaching Capabilities

- **affiliation:** This capability allows forming alliances with others such as friendships and collegial workplace relations. This would include the capability to form associations such as a church, an NGO, or a political interest group.
- **Other Species:** Here Nussbaum is setting forth the rudiments of an environmental ethics where nature as a whole and the individuals within nature place constraints on human action. But, rather than formulating this traditionally in terms of the extension of utilitarianism or deontology, Nussbaum sees our ability to commune with nature as a necessary constituent of a life of human dignity or human flourishing.

### Agent-Based Capabilities

#### Control Over One's Environment

##### Play

The capability of play is deformed by child labor. Adam Smith, for example, comes out strongly against child labor in his economic theory and advocates strong government intervention to protect this capability. Childhood labor prevents children from reaping the developmental and psychological benefits of play. This capability militates directly against the idea that play is isolated and does not contribute to the formation of other cognitive and practical abilities such as emotion, thought/sensation/imagination, or practical reason. On the other hand control over one's environment works directly against such poverty traps as uninsurable risk, lack of working capital, non-workable property practices, etc. See Stephen Smith below.

Capabilities lists vary. Nussbaum allows that others have different lists and that hers will certainly be modified as time passes and conditions change. Insofar as a technology plays the role of a **conversion factor** that transforms a capability into a functioning, then it is—in the humanistic sense of the term—appropriate. On the other hand, insofar as it thwarts capabilities and suppresses their expression it fails the test of appropriateness. When business and engineering professionals take a Human Development approach to their work, they broaden the design process and the development of new products and services to include a close examination of how the proposed novelty can either encourage or diminish the conversion of capabilities into functionings.

An advantage of the Capabilities or Human Development Approach over other approaches such as social contract theories of justice lies in its ability to extend the umbrella of justice to cover three challenges that have traditionally been ignored:

1. The capabilities and ranges of action of humans operating under physical and cognitive disabilities
2. Human individuals who have been born and live in nations of poverty, economic inequality, political oppression, and demeaning work and social roles and stations. In her book, *Creating Capabilities*, Nussbaum profiles a woman who is abused by her alcoholic husband, works long hours in a demeaning job and returns home to the domestic responsibilities of being the primary care-giver to a family of four.
3. Natural ecosystems as well as natural species including domesticated animals, wild animals, and the entities that populate the natural environment.

### Social Construction of Technology

This branch of technology studies provides insight into how technologies are socially constructed. Pinch and Bijker provide a case history of how the current bicycle design emerged from a social process of construction. In an initial stage of “interpretive flexibility,” users interacted with different designs as they negotiated in public space whether bicycles were for leisure, racing, touring, basic transportation, or sporting activities. As design variations were set aside and user goals and interests focused, this stage of interpretive flexibility narrowed and closed. In the final stage, a dominating design emerges that serves as a black box. With interpretive flexibility a thing of the past, the black box, the dominant design, takes on the appearance of inevitability; it captures the meaning of bicycle that was earlier up for grabs. (Pinch and Bijker discuss social constructionism in their paper referenced below. This can be easily found in the Johnson and Wetmore anthology, *Technology and Society*. This account builds on their discussion of the process of social construction: interpretive flexibility, closing of interpretive flexibility, and technological black box.)

The paper “Manufacturing Gender in Commercial and Military Cockpit Design,” argues that it was necessary to reopen the black box of airplane cockpit design to reveal its instantiation of gender bias. Women were unable to fly airplanes because airplanes were not designed to accommodate their arm and leg reach, physical strength, height, and weight. This gender bias could only be removed through the restoration of interpretive flexibility. The gender biased design of airplane cockpits had to be revealed as a contingency rather than as a necessity.

Interpretive flexibility relies on an imaginative attitude that Steven Winter terms “transperspectivity.” Designers must first “unravel or trace back the strands by which our constructions weave our world together” then “imagine how the world might be constructed differently.” The capabilities approach compliments social construction of technology in that it asks how background social conditions can be changed to facilitate the realization of capabilities. Instead of forcing women to conform to inappropriate cockpit design, we ask how cockpit design can be reworked to facilitate the realization of the capability of women to fly planes.

### Technological Determinism

*Technological Determinism* is the opposite of social construction. Where the position of social construction argues that society constructs or determines technology, the position of technological determinism argues that technology constructs or determines the dominant forms of social interaction. While Langdon Winner is not a technological determinist, he lays out a terminology that dramatizes how technologies can cease to function as tools and, instead, take on the role of centers of concentrated power that dictate social forms and relations. Technologies create their own imperatives, that is, they assert their requirements as needs that

demand fulfillment if we are to continue their functioning. These technological imperatives create the need for reverse adaptations. Instead of our designing and modifying technologies to fit our needs (technologies serve us), we set aside our needs and adapt ourselves to serving the requirements of complex technologies (we serve technologies). Winner discusses the technological imperative and reverse adaptability in *Autonomous Technology*. Larry Hickman provides an excellent summary of Winner's approach in *John Dewey's Pragmatic Technology*.

### Questions for assessing the appropriateness of a technology

1. *Does the technology in question play the role of a conversion factor that changes capabilities into active functionings?* (Conversion factors are a bit like resources or means and can be personal, social, or environmental: see Robeyns) Review the ten capabilities outlined by Nussbaum. Does the technology in question help to realize a capability in the STS of your case? Which one? How? On the other side, does the technology threaten to thwart the realization of a capability? Which one? How?
2. *Does the technology in question embrace simplicity and avoid (manifest or latent) complexity?* The more complex a technology, the harder it is to control. As technologies become more complex they take on lives of their own. So one way of approaching this question is to assess the complexity of technology in terms of the background STS. Manifest complexity lies in the complexity that is obvious. Latent complexity is a negative factor in the appropriateness of a technology because latent complexity can often lead to unpredictable breakdowns and accidents.
3. *Does the technology embody a decentralized approach to control, one that disperses control over many localized centers or does it telescope control in one, centralized powerful locale?* Amish communities do not reject electricity per se but refrain from hooking up to power grids maintained by large public utilities in part because of this issue. As a general rule, a technology is more appropriate when it can be instantiated and managed through decentralized points of control rather than through large, bureaucratic, authoritarian centralized points of control and management. Windmills would be preferable on this criterion to nuclear reactors because the latter are subject to catastrophic failures; this requires the exercise of tight managerial controls better brought through centralized and concentrated points of control and management.
4. *Does the technology realize or protect values (or resolve value conflicts) in such a way as to put the STS on a value-positive trajectory?* This, more than any of the other criteria of technological choice, requires holistic thinking. Bringing a technology into a STS should require mutual adjustment. How will the STS have to be adjusted to incorporate the technology with the minimum number of value issues (value vulnerabilities or value conflicts)? Will these adjustments place the STS on a value-positive trajectory? On the other hand, how malleable is the technology? (This is something you have already begun to answer as you looked at the technology's complexity and centralization.) If malleable, it can be adopted to the surrounding STS. If not, then the problem of reverse adaptation arises.
5. *Does the technology provide for a just distribution of relevant costs and benefits?* *Technologies create benefits and costs.* Utilitarianism argues that the only relevant factor is the ratio of benefits to costs; if benefits are maximized and costs minimized, the utilitarianism enjoins that we adopt the technology. This criteria provides an important caveat; not must benefits be maximized and costs minimized but benefits and costs must be broadly and equitably distributed among the stakeholders. Net benefit maximization often stands side by side with massive inequities in the distribution of costs and benefits; everybody benefits from cheaper gas prices made possible by the refinery located near a lower class neighborhood. But those living next to the refinery bear the brunt of the costs if the gas is made cheap by sacrificing pollution controls.

### 6.1.3 III. What you are going to do.

In this section, you will learn about five cases of technological choice. You and your group will be assigned a case and will carry out a series of exercise in relation to it. Specifically you

will...

1. Learn about your case by reading the article on which it is based and discussing it with other members of your group.
2. Describe your technology: (a) Identify its key features; (b) Provide a history of its social construction; (c) Identify its competitors. (Think about the racing versus safety models of the early bicycle)
3. Prepare a socio-technical description of your case: (a) Identifies its major components. Start with hardware, software, physical surroundings, stakeholders, procedures, laws, and information systems. Add or subtract as required by the particularities of your STS. (b) Describe each component in detail (c) Provide a table that summarizes your description
4. Assess your case's technology using the questions on appropriate technological choice presented in the previous section
5. Draw conclusions about the instances of technological choice portrayed in your case. Is it appropriate or inappropriate? Explain your group's position.
6. Prepare a poster summarizing your group work and present it to the class
7. Listen carefully to the presentations of the other groups in your class

#### 6.1.4 IV. Cases of Responsible Choice of Appropriate Technologies

##### A. Technological Choice in Amish Communities

- "Amish Technological Choice: Reinforcing Values and Building Commitments" by Jamison Wetmore
- How do the Amish choose and modify technology so that it is compatible with community values and supports community ways of life
- Values: Amish values are centered around the community's Ordnung. In general, Amish evaluate technologies in terms of the values of humility, equality, simplicity, and community. (See Wetmore)
- Examples: (a) Using power tools with rechargeable batteries to work around the need to connect to Electric company power grids; (b) Refraining from plugging into the grid of public utilities; (c) Purchasing cars and phones but restricting ownership to the community and use to business purposes; (d) Negotiating accommodations on government regulations so as to minimize impacts on community values and ways of life. (Example of not delivering milk on Sundays); (e) Securing community and individual identity by drawing, through technological choice, contrasts with the outside, surrounding, English community.

##### B. Removing Gender Bias from Airplane Cockpit Design

- "Manufacturing Gender in Commercial and Military Cockpit Design" by Rachael Weber
- This case describes the process of changing the design of airplane cockpits to remove gender bias.
- Values: (a) gender parity and equality; (b) respect (recognizing capabilities of women and designing airplanes around these capabilities); (c) justice in the form of an equitable distribution of the role and the benefits and burdens attached to the role of airplane pilots
- Article describes changes in the STS: (a) Norms: how do changes in society's norms help facilitate the redesign of airplanes and the cockpits? (b) Laws: how did changes in laws and regulations help uncover the gender bias in designs and spur the development of new designs that removed this gender bias? (c) Markets: The initial reaction of airplane manufacturers and consumers was that this would make airplanes prohibitively expensive. What changes in the market or financial context averted this threat? (d) Architecture: How did changing the JPATS help to solve this problem?

##### C. Uchangi Dam

##### C. Honest Brokering in India

- "People's Science in Action: The Politics of Protest and Action" by Pradkhe

- Retired engineers working with NGOs in India help resolve a 14 year standoff between the Indian government and villagers in Chafawade and Jeur. The engineers carried out detailed studies into the STS surrounding these villagers including land use mappings. They were able to formulate plans for a different irrigation system that had less impact on these communities but still delivered the basic functions of an irrigation project.
- Values: (a) Responsibility: Shift design responsibility from a bureaucratic government agency to local communities empowered by work with NGO engineers; (b) Justice: Develop and design an alternative irrigation project that bettered distributed harms and benefits of irrigation among all the stakeholders; (c) Community Solidarity: Use government challenge as an opportunity to discover community values and give these voice through locally organized resistance and value responsive engineering plans
- Technologies: (a) Replace single large scale dam with several smaller dams; (b) Relocate water storage sites away from Chafawade and Jeur; (c) Redistribute and spread both the benefits and harms associated with the Uchang dam and irrigation project. (d)Reconstruct the stakeholder alliance to represent better the interests of small villages in this region of India

#### D. Rapunsel: Designing Value into Educational Software

- M. Flanagan, D. Howe, and H. Nissenbaum, "Embodying Values in Technology: Theory and Practice," in *Information Technology and Moral Philosophy*, Jeroen van den Hoven & John Weckert, Eds. Cambridge, UK: Cambridge University Press, 2008, pp. 322-353.
- Educators in software development notice that there is a shortage of women programmers. Further investigation reveals that part of the problem is the gender bias inherent in software development including pedagogical materials (educational software) that is biased toward male and against female students. Educational specialists develop new educational software called Rapunsel that is geared toward computer programming to girls. Developers enact a value realization process that includes the discover of key values, their translation of these values into a design prototype that operationalizes and implements these values in software, and a rigorous process to verify that the design in question actually realizes these values.
- Framework: (a) Discover by examining project definition, design features, designer values, user values including the values inherent in "subversive uses" (b) Translation that includes the operationalization of values in a design and their implementation in a concrete STS; (c) Verification brought about through the triangulation of methods of participatory observation that include questionnaires, interviews, and day-in-the-life-scenarios
- Values: (a) Project Definition: social and civil interaction, privacy, security, equity; (b) Design features: social and civil interaction, cooperativeness, fair and equitable representation; (c) Designer Values: diversity, distributive justice, gender equity; (d) User values: self-expression, authorship, collaboration
- Examples: (a) Educational software to teach girls computer programming; (b) Enacted in the form of a game environment; (c) Modified in light of participatory observation and "subversive uses"

#### E. One Laptop Per Child

- Kenneth L. Kraemer, Jason Dedrick, and Prakul Sharma. "One Laptop Per Child: Vision versus Reality." *Communications of the ACM*. June 2009, Vol. 52, No. 6: 66-73
- This case explores the challenges of implementing a laptop computer designed as an educational tool for children in developing nations. Laptops are chosen because, in the minds of the designers, they can deliver the tools of education in one convenient package. They present and create modes of interacting with educational software; they provide a convenient way of storing and displaying reading material and promise to replace traditional printed media; they create an environment where students can learn writing working through word processing media. And the innovation of the XO laptop is that it has been designed for use by children in areas that lack infrastructure for other, traditional educational media.



- Values: (a) Distributive Justice. XO laptops, because they are cheap and linked with sponsorship by developed world institutions, promise to reduce the digital divide by giving children (and their families) in developing nations access to computers, the Internet, and all the information that the two can bring. (b) Realizing Capabilities. XO laptops can play the role of conversion factors transforming the following capabilities into functionings: Sense, imagination, and thought; Emotion; Practical Reason; Affiliation; Play
- Examples: (a) Fedora Linux Operating System; (b) WiFi access to Internet; (c) Hand cranks to recharge batteries. XO laptops are designed to operate in zones where there is no or insufficient electricity; (d) No drives. Relying on less sophisticated operating system software reduces the demand for storage capacity. (Given Internet access, many storage needs can be delegated to the Internet.) This further simplifies the system and makes it unnecessary to install a hard drive. (e) Designed for children. Hard, durable plastic casing and keyboards shaped for children's hands

#### F. Case for Waste for Life

- This case studies a press that produces building materials made from waste products and plant fibers.
- One chapter examines the integration of this technology into Lesotho.
- The other chapters look at the STS in Buenos Aires, Argentina and how it constrains the integration of similar technology there.
- This case study is available to UPRM students through the university's library. It is a part of the Morgan and Claypool series found in the section on electronic books.
- Complete Bibliographical Reference: C. Baillie, E. Feinblatt, T. Thamae, and E. Berrington. (2010). **Needs and Feasibility: A Guide for Engineers in Community Projects—The Case for Waste for Life**. Morgan and Claypool.

#### G. Aprovecho

- Aprovecho is a non-profit organization that specializes in stoves for developing nations.
- Respiratory disease from the pollution from stoves used indoors is a major cause of death for children under 5 years old in developing nations.
- Aprovecho is considering setting up a regional center for testing and distributing stoves in Puerto Rico.
- Are these stoves an appropriate technology for PR or even parts of PR?
- Be sure to listen to the NPR story on Aprovecho and the NPR series on Social Entrepreneurship
- Link given above: <http://www.aprovecho.org/lab/index.php>

### 6.1.5 V. Case Table

This table updates the technology choice cases used in this module.

## Technology Choice Cases

Technology Choice Cases				
	Description	Capabilities	Technology choice Issues	Puerto Rico Pivot(s)
<b>One Laptop Per Child</b>	Distributing laptops to school children in developing nations	Affiliation, play and practical reason	For or not for profit?	Laptops to PR public school children--Would it work?
<b>Amish TC</b>	How Amish use community values to choose and modify technologies	Emotion, affiliation, Thought Practical reason Control over env.	Not anti-tech; adopt and adapt using community values	Consider citizens of Vieques and whether they should allow windmill farms.
<b>Gender Bias in Airplane Design</b>	Redesigning airplane cockpits for women pilots	Control over one's environment	Going from women can't fly to planes are badly designed for women pilots	Are there designs in Puerto Rico that exhibit gender bias?
<b>Bamboo</b>	Using bamboo grown in PR as construction material	Other species, control over one's environment	Appropriateness and conversion of natural artifacts into technical	Creating a resource that is locally grown, harvested, and used
<b>Biosand Filters in Haiti</b>	Teaching people in Haiti how to use biosand filters to clean water	Health, bodily movement, affiliation	Using modern knowledge, simple artifacts, decentralization and other AT criteria	Lessons of community development and decentralization
<b>Uchangi Dam</b>	NGO engineers resolve a dispute between local communities and big government	Affiliation, bodily movement, control over env	NGO professionals as honest brokers in technological choice	Using values mapping to build local relevance into engineering designs
<b>Aprovecho</b>	Designing stoves to alleviate problems of indoor smoke and deforestation	Health, other species	Participation of local community in design of technical artifact	Listening to users and communities: an Inverse Peace Corps
<b>Waste For Life</b>	Using a hot press to recycle plastic in Argentina and Lesotho	Health, other species, cont. over env.	Same artifact, different STS, different results	The influence of surrounding environments on technical functioning

## 6.1.6 VI. Instructions for Poster Session

In this activity you will carry out the following tasks:

1. Read carefully the article that presents your case study in technological choice. Prepare an outline.
2. Prepare a poster that discusses your case in terms of the following framework.
3. **Zoom in.** Describe and classify the artifact that highlights your case. Give its physical structure, how it functions when it is working properly, and its "user manual."
4. **Zoom out.** Describe the socio-technical system that surrounds your artifact by constructing a table that outlines hardware, software, physical surroundings, people/groups/roles, procedures, laws, and information systems. Pay special attention to how the surrounding STS constrains and enables the functioning of your technical artifact.
5. **Discuss/Evaluate how "appropriate" your technical artifact is to its surrounding environment.** Is it "supportive of production by the masses," does it make use of the "best of modern knowledge and experience," does it trend toward "decentralization," does it fit in with the "laws of ecology," is it "gentle in the use of scarce resources," and does it serve human rather than constrain humans to serve it."
6. How does your technical artifact stand in relation to Nussbaum's list of **capabilities**? Most importantly, does it serve as a tool to address personal, social, and environmental conversion factors that help convert capabilities into functionings?

## Close-out Writing Assignment

1. Choose a technical artifact from another group's poster. (Not the one prepared by your group.)
2. In one or two sentences, describe what is happening when the technology is fully functioning. This is called **"zooming in."**
3. Next, choose the two elements of the surrounding socio-technical system that most effect this technical artifact and its functioning. For example, the lack of electricity in communities in Zimbabwe have a strong impact on whether and how podcast broadcasts will take place. This focusing on the socio-technical system will help you to **"zoom out."**
4. Choose a capability from Nussbaum's list that is pertinent to the technical artifact you have chosen. Does this artifact serve as a conversion factor that converts the capability into a specific functioning? What personal or environmental factors could effect this conversion?
5. Formulate a test question (multiple choice format) that you think would arise from this group's poster and their technology choice case.
6. Zooming in and zooming out comes from Ilse Oosterlaken and can be found in **The Capability Approach, Technology and Design**, Ilse Oosterlaken and Jeroen van den Hoven, eds. New York: Springer, 2012.

### 6.1.7 VII. What have you learned?

- Technological choice is as much a skill as a set of concepts that you learn. This module has given you the opportunity to practice frameworks of technological choice in the context of real world cases. To help you capture what you have learned, reflect on the following questions:
- How does practicing technological choice help us to see technologies less as isolated objects and more as enactments?
- Using your case and the cases presented by the other groups in class in what sense and to what extent is the nature and structure of technology determined or constituted by social structure?
- Again, working with the cases studied in the module, under what conditions can technologies escape our control and, in turn, control us?
- What are the features and uses of a good, concrete STS description?

### 6.1.8 VIII. Jeopardy for Responsible Technological Choice

These exercises using the format of Jeopardy will help you learn the vocabulary of responsible technological choice. Click on the media file and download the Jeopardy as a PowerPoint. To play the game, simply put the PowerPoint in presentation mode. Several of the slides also have links to information slides that explain further the relation between question and answer.

#### Socio-Technical Systems in Incident at Morales

[MEDIA OBJECT]<sup>2</sup>

#### More Jeopardy on Socio-Technical Systems

[MEDIA OBJECT]<sup>3</sup>

#### Cases of Responsible Technological Choice

[MEDIA OBJECT]<sup>4</sup>

#### Presentation: Training responsible agents for global contexts

[MEDIA OBJECT]<sup>5</sup>

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<sup>2</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy\_STS\_IM.pptx>

<sup>3</sup>This media object is a downloadable file. Please view or download it at  
<Socio Technical Systems.pptx>

<sup>4</sup>This media object is a downloadable file. Please view or download it at  
<Technological Choice Cases.pptx>

<sup>5</sup>This media object is a downloadable file. Please view or download it at  
<Training responsible engineers for global contexts.pptx>

**Technology Choice Jeopardy**[MEDIA OBJECT]<sup>6</sup>**Socio-Technical Systems, Technology, and Human Capabilities**[MEDIA OBJECT]<sup>7</sup>**STS PowerPoint**[MEDIA OBJECT]<sup>8</sup>**Writing Cases Presentation**[MEDIA OBJECT]<sup>9</sup>**Technology Choice Presentation**[MEDIA OBJECT]<sup>10</sup>**6.1.9 IX.Bibliography**

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<sup>6</sup>This media object is a downloadable file. Please view or download it at <Tech\_Choice\_Cases.pptx>

<sup>7</sup>This media object is a downloadable file. Please view or download it at <STS\_4.pdf>

<sup>8</sup>This media object is a downloadable file. Please view or download it at <Socio-Technical Systems.pptx>

<sup>9</sup>This media object is a downloadable file. Please view or download it at <Writing Cases Ap Tech.pptx>

<sup>10</sup>This media object is a downloadable file. Please view or download it at <Technology Choice S14.pptx>

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## 6.2 Case Analysis Module: Therac-25<sup>11</sup>

### Computer Ethics

#### Case Module Template

By William J. Frey

#### Module Introduction:

The Therac-25 case is what Huff and Frey call a thick, historical, evaluative, big news and bad news case. Tackling cases of this complexity requires both careful thought and considerable skill. Especially important is the ability to sift through the case details, documents, and conflicting narratives. The purpose of this module is to provide students with a structure to tackle big, long, and complicated cases. Students will receive frameworks to help them structure the case's ethical and social problems. They will also be provided with decision points that will help them to enter into the case and take up the standpoint of a participant. The module presented below can be linked to materials that can be found at [www.computingcases.org](http://www.computingcases.org). Nancy Leveson, in *Safeware: System Safety and Computer* (515-553), also provides an excellent and comprehensive account. Excellent advice on how to teach the case, updated information, and clear explanations of the programming errors are provided by Chuck Huff and Richard Brown in "Integrating Ethics into a Computing Curriculum: A Case Study of the Therac-25." The materials posted at Computing Cases were all developed through NSF projects DUE-9972280 and DUE 9980768.)

The module presents the case abstract and timeline. It then refers students to [computingcases.org](http://computingcases.org) where they will find the case narrative, history, and supporting documents that provide background information necessary for analysis. The case abstract and timeline introduce students to the basic outlines of the case. The accompanying decision point taken from the case provides students with the necessary focus to carry out an in-depth analysis. Students respond to the decision-point by working through the four stages: problem specification, solution generation, solution testing, and solution implementation.

#### Module Activities:

1. Instructor introduces the case based on the abstract and timeline found at [www.computingcases.org](http://www.computingcases.org)<sup>12</sup>
2. Students read case abstract, timeline, case decision point, and case analysis exercises.
3. Students do further research into the case by consulting ComputingCases materials which include narratives, histories, supporting documents, and ethical analyses.
4. Students carry out the activities outlined in the accompanying case exercises by (a) specifying the problem raised in the decision point, (b) generating solutions, (c) testing solutions using ethics tests, and (d) developing plans for implementing the solution over situational constraints.
5. Students prepare their case analyses working in small groups.
6. These groups present their completed analysis to the class in a case-debriefing session.
7. The instructor concludes by discussing the problem-solving issues and intermediate moral concepts raised by the case.

### 6.2.1 Therac-25 Abstract

Therac-25<sup>13</sup> was a new generation medical linear accelerator<sup>14</sup> for treating cancer. It incorporated the most recent computer control equipment. Therac-25's computerization made the laborious process of machine setup much easier for operators, and thus allowed them to spend minimal time in setting up the equipment. In addition to making setup easier, the computer also monitored the machine for safety. With the advent of computer control, hardware based safety mechanisms were transferred to the software. Hospitals were told that the Therac-25 medical linear accelerator had "so many safety mechanisms" that it was "virtually impossible" to overdose a patient. Normally, when a patient is scheduled to have radiation therapy for cancer, he or she is scheduled for several sessions over a few weeks and told to expect some minor skin discomfort from the treatment. The discomfort is described as being like a mild sunburn over the treated area. But

<sup>11</sup>This content is available online at <http://cnx.org/content/m13765/1.8/>.

<sup>12</sup><http://www.computingcases.org/>

<sup>13</sup>[http://www.computingcases.org/case\\_materials/therac/teaching/therac/supporting\\_docs/Therac%20Glossary.html#tr25](http://www.computingcases.org/case_materials/therac/teaching/therac/supporting_docs/Therac%20Glossary.html#tr25)

<sup>14</sup>[http://www.computingcases.org/case\\_materials/therac/teaching/therac/supporting\\_docs/Therac%20Glossary.html#tr13](http://www.computingcases.org/case_materials/therac/teaching/therac/supporting_docs/Therac%20Glossary.html#tr13)

in this case on safety critical software, you will find that some patients received much more radiation than prescribed

#### **Therac - 25 Timeline**

This time line is largely adopted from the Computing Cases website. The website developer, Charles Huff, has provided this module's author with a more detailed unpublished version (that provides the real names of the patients left out in Computing Cases) that the author has adopted here. Readers should note that this time line also overlaps with that provided by Leveson and Turner. (See below for two references where the Turner and Leveson time line can be found.)

**Therac-25 Chronology**

Early 1970's	AECL and a French Company (CGR) collaborate to build Medical Linear Accelerators (linacs). They develop Therac-6, and Therac-20. (AECL and CGR end their working relationship in 1981.)
1976	AECL develops the revolutionary "double pass" accelerator which leads to the development of Therac-25.
March, 1983	AECL performs a safety analysis of Therac-25 which apparently excludes an analysis of software.
July 29, 1983	In a PR Newswire the Canadian Consulate General announces the introduction of the new "Therac 25" Machine manufactured by AECL Medical, a division of Atomic Energy of Canada Limited.
ca. Dec. 1984	Marietta Georgia, Kennestone Regional Oncology Center implements the new Therac-25 machine.
June 3, 1985	Marietta Georgia, Kennestone Regional Oncology Center Katherine (Katy) Yarbrough, a 61-year-old woman is overdosed during a follow-up radiation treatment after removal of a malignant breast tumor. Tim Still, Kennestone Physicist calls AECL asking if overdose is possible; three days later he is informed it is not.
July 26, 1985	Hamilton, Ontario, Canada. Frances Hill, a 40-year-old patient is overdosed during treatment for cervical carcinoma. AECL is informed of the injury and sends a service engineer to investigate.
November 3, 1985	Hamilton Ontario patient dies of cancer, but it is noted on her autopsy that had she not died, a full hip replacement would have been necessary as a result of the radiation overdose.
November 8, 1985	Letter from CRPB to AECL requesting additional hardware interlocks and changes in software. Letter also requested treatment terminated in the event of a malfunction with no option to proceed with single key-stroke. (under Canada's Radiation Emitting Devices Act.)
November 18, 1985	Katy Yarbrough files suit against AECL and Kennestone Regional Oncology Center. AECL informed officially of Lawsuit.
December 1985	Yakima Valley Memorial Hospital, Yakima Washington. A woman being treated with Therac-25 develops erythema on her hip after one of the treatments.
January 31, 1986	Staff at Yakima sends letter to AECL and speak on the phone with AECL technical support supervisor.
February 24, 1986	AECL technical support supervisor sends a written response to Yakima claiming that Therac-25 could not have been responsible for the injuries to the female patient.



**Table 6.1:** Chronology closely paraphrases chronology in Computing Cases. The major difference is that it replaces fictional names with real names of participants since these were eventually publicized. Most of these events were originally uncovered by Leveson. (See citations below)

Scenario: You are an engineer working for AECL sent to investigate an alleged overdosing incident at the Ontario Cancer Foundation in Hamilton. Ontario. The following is the description provided to you of what happened:

On July 26, 1985, a forty-year old patient came to the clinic for her twenty-fourth Therac-25 treatment for carcinoma of the cervix. The operator activated the machine, but the Therac shut down after five seconds with an HTILT error message. The Therac-25's console display read NO DOSE and indicated a TREATMENT PAUSE

Since the machine did not suspend and the control display indicated no dose was delivered to the patient, the operator went ahead with a second attempt at a treatment by pressing the Proceed Command Key, expecting the machine to deliver the proper dose this time. This was standard operating procedure, and Therac-25 operators had become accustomed to frequent malfunctions that had no untoward [bad] consequences for the patient. Again the machine shut down in the same manner. The operator repeated this process four times after the original attempt—the display showing NO DOSE delivered to the patient each time. After the fifth pause, the machine went into treatment suspend, and a hospital service technician was called. The technician found nothing wrong with the machine. According to a Therac-25 operator, this scenario also was not unusual.

After treatment, the patient complained of a burning sensation, described as an “electric tingling shock” to the treatment area in her hip....She came back for further treatment on July 29 and complained of burning, hip pain, and excessive swelling in the region of treatment. The patient was hospitalized for the condition on July 30, and the machine was taken out of service. (Description taken from Nancy Leveson, Safeware, pp 523-4)

You give the unit a thorough examination and are able to find nothing wrong. Working with the operator, you try to duplicate the treatment procedure of July 26. Nothing out of the ordinary happens. Your responsibility is to make a recommendation to AECL and to the Ontario Cancer Foundation. What will it be?

1. Identify key components of the STS

Part/Level of Analy- sis	Hardware	Software	Physical Surround- ings	People, Groups, & Roles	Procedures	Laws & Regula- tions	Data & Data Structures

**Table 6.2**

2. Specify the problem:

2a. Is the problem a disagreement on facts? What are the facts? What are cost and time constraints on uncovering and communicating these facts?

2b. Is the problem a disagreement on a critical concept? What is the concept? Can agreement be reached by consulting legal or regulatory information on the concept? (For example, if the concept in question is safety, can disputants consult engineering codes, legal precedents, or ethical literature that helps provide consensus? Can disputants agree on positive and negative paradigm cases so the concept disagreement can be resolved through line-drawing methods?

2c. Use the table to identify and locate value conflicts within the STS. Can the problem be specified as a mismatch between a technology and the existing STS, a mismatch within the STS exacerbated by the introduction of the technology, or by overlooked results?

STS/Value	Safety (free-dom from harm)	Justice (Equity & Access)	Privacy	Property	Free Speech
Hardware/software					
Physical Sur-roundings					
People, Groups, & Roles					
Procedures					
Laws					
Data & Data Structures					

Table 6.3

3. Develop a general solution strategy and then brainstorm specific solutions:

Problem / So-lution Strategy	Disagreement		Value Conflict		Situational Constraints
	Factual	Conceptual	Integrate?	Tradeoff?	Resource? Technical? Interest

Table 6.4

3a. Is problem one of integrating values, resolving disagreements, or responding to situational constraints?

3b. If the conflict comes from a value mismatch, then can it be solved by modifying one or more of the components of the STS? Which one?

4. Test solutions:

Alternative / Test	Reversibility	Value: Jus-tice	Value: Re-sponsibility	Value: Re-spect	Harm	Code
A #1						
A #2						
A #3						

Table 6.5

5. Implement solution over feasibility constraints

Alternative Con- straint	Resource		Interest			Technical	
	Time	Cost	Individual	Organization	Legal/ So- cial	Available Techno- logy	Manufacturability
#1							
#2							
#3							

Table 6.6

### 6.2.2 Appendix

#### Therac Decision Point Presentation

[MEDIA OBJECT]<sup>15</sup>

[MEDIA OBJECT]<sup>16</sup>

#### Therac-25 Decision Point

[MEDIA OBJECT]<sup>17</sup>

#### Therac-25 Case Summary

[MEDIA OBJECT]<sup>18</sup>

#### Free and Informed Consent, Safety, and Dimensions of Risk

[MEDIA OBJECT]<sup>19</sup>

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- For time line see: [http://computingcases.org/case\\_materials/therac/supporting\\_docs/therac\\_resources/Timeline.htm](http://computingcases.org/case_materials/therac/supporting_docs/therac_resources/Timeline.htm)

<sup>15</sup>This media object is a downloadable file. Please view or download it at  
<Therac-25 Case\_V3.pptx>

<sup>16</sup>This media object is a downloadable file. Please view or download it at  
<Therac-25 Case\_V4.pptx>

<sup>17</sup>This media object is a downloadable file. Please view or download it at  
<Therac-25\_DP.pptx>

<sup>18</sup>This media object is a downloadable file. Please view or download it at  
<Therac-25 Case\_V6.pptx>

<sup>19</sup>This media object is a downloadable file. Please view or download it at  
<Therac-25 Case\_V7.pptx>

- Leveson in Safeware provides an excellent summary of the literature on system safety. For two further excellent resources consult the next two references.
- Perrow, C. (1984) *Normal Accidents: Living with high-risk technologies*. Basic Books, NY, NY.
- Reason, J. (1990/1999) *Human Error* Cambridge University Press: London.

## 6.3 Gray Matters for the Hughes Aircraft Case<sup>20</sup>

### 6.3.1 Introduction

#### I. Introduction

The Hughes Aircraft Case involves a group of employees in charge of testing chips for weapons systems. Because of the lengthy testing procedure required by the U.S. Defense Department, Hughes soon fell behind schedule in delivering chips to customers. To get chips out faster, some Hughes middle level managers began to put pressure on employees to pass chips that had failed tests or to pass them without testing. The scenarios below consist of narratives that stop at the point of decision. Your job is to complete the narrative by making a decision. Alternatives are provided to get the process started, but you may find it necessary to design your own solution. Ethics and feasibility tests help you to evaluate these alternatives and even design new ones more to your liking. This format superficially resembles the Gray Matters exercise used at Boeing Corporation. (More information on the history of Gray Matters can be found by consulting Carolyn Whitbeck, *Ethics in Engineering Practice*, 1998, 176-182.) This version differs in being more open-ended and more oriented toward giving you the opportunity to practice using ethical theory (which has been encapsulated into ethics tests).

### 6.3.2 Directions

#### II. Directions

- Read the following scenarios and the accompanying solutions
- Evaluate the alternatives in terms of the tests described below.
- Choose the one you think best or design your own solution if you believe you can do better.
- Summarize your results by filling in the solution evaluation matrix that appears on the page following the scenario. Notice that the first column repeats the solution alternatives.
- Be prepared to present your matrix to the class. You will also provide the other groups in the class with a copy of your matrix for their ethics portfolios

#### Bibliographical Note

The six scenarios below were developed by Chuck Huff as Participant Perspectives. They were first published online through the Computing Cases website. (Computing Cases was developed through two National Science Foundation grants, DUE-9972280 and DUE-9980768.) A revised version of these participant perspectives has been published in the anthology, **Whistleblowing: Perspectives and Experiences**, edited by Reena Raj and published in 2008 by the Icfai University Press, Nagarjuna Hills, Punjagutta, Hyderabad, India. These materials can be found on pages 75-80.

#### Scenario One: Responding to Organizational Pressure

Frank Saia has worked at Hughes Aircraft for a long time. Now he is faced with the most difficult decisions of his career. He has been having problems in the environmental testing phase of his microchip manufacturing plant; the detailed nature of these tests has caused Hughes to be consistently late in delivering the chips to customers. Because of the time pressure to deliver chips, Saia has been working to make the production of chips more efficient without losing the quality of the product. Chips are manufactured and then tested, and this provides two places where the process can bottle up. Even though you might have a perfectly fine chip on the floor of the plant, it cannot be shipped without testing. And, since there are several thousand other

<sup>20</sup>This content is available online at <<http://cnx.org/content/m14036/1.25/>>.

chips waiting to be tested, it can sit in line for a long time. Saia has devised a method that allows testers to put the important chips, the “hot parts,” ahead of the others without disrupting the flow and without losing the chips in the shuffle. He has also added a “gross leak” test that quickly tells if a chip in a sealed container is actually sealed or not. Adding this test early in the testing sequence allows environmental testing to avoid wasting time by quickly eliminating chips that would fail a more fine-grained leak test later in the sequence. Because environmental testing is still falling behind, Saia’s supervisors and Hughes customers are getting angry and have begun to apply pressure. Karl Reismueller, the director of the Division of Microelectronics at Hughes, has given Saia’s telephone number to several customers, whose own production lines were shut down awaiting the parts that Saia has had trouble delivering. His customers are now calling him directly to say “we’re dying out here” for need of parts. Frank Saia has discovered that an employee under his supervision, Donald LaRue, has been skipping tests on the computer chips. Since LaRue began this practice, they have certainly been more on time in their shipments. Besides, both LaRue and Saia know that many of the “hot” parts are actually for systems in the testing phase, rather than for ones that will be put into active use. So testing the chips for long-term durability that go into these systems seems unnecessary. Still, LaRue was caught by Quality Control skipping a test, and now Saia needs to make a decision. Upper management has provided no guidance; they simply told him to “handle it” and to keep the parts on time. He can’t let LaRue continue skipping tests, or at least he shouldn’t let this skipping go unsupervised. LaRue is a good employee, but he doesn’t have the science background to know which tests would do the least damage if they were skipped. He could work with LaRue and help him figure out the best tests to skip so the least harm is done. But getting directly involved in skipping the tests would mean violating company policy and federal law.

### Alternatives

1. Do nothing. LaRue has started skipping tests on his own initiative. If any problems arise, then LaRue will have to take responsibility, not Saia, because LaRue was acting independently of and even against Saia’s orders.
2. Call LaRue in and tell him to stop skipping tests immediately. Then call the customers and explain that the parts cannot be shipped until the tests are carried out.
3. Consult with LaRue and identify non essential chips or chips that will not be used in systems critical to safety. Skipping tests on these chips will do the least damage.
4. Your solution...

### Scenario Two: Responding to Wrongdoing

Margaret Goodearl works in a supervisory position in the environmental testing group at Hughes Aircraft. Her supervisor, Donald LaRue, is also the current supervisor for environmental testing. The group that LaRue and Goodearl together oversee test the chips that Hughes makes in order to determine that they would survive under the drastic environmental conditions they will likely face. Rigorous testing of the chips is the ideal, but some chips (the hot chips) get in line ahead of others. Goodearl has found out that over the last several months, many of these tests are being skipped. The reason: Hughes has fallen behind in the production schedule and Hughes upper management and Hughes customers have been applying pressure to get chip production and testing back on schedule. Moreover, LaRue and others feel that skipping certain tests doesn’t matter, since many of these chips are being used in systems that are in the testing phase, rather than ones that will be put into active use. A few months after Margaret Goodearl started her new position, she was presented with a difficult problem. One of the “girls” (the women and men in Environmental Testing at Hughes), Lisa Lightner, came to her desk crying. She was in tears and trembling because Donald LaRue had forcefully insisted that she pass a chip that she was sure had failed the test she was running. Lightner ran the hermeticity test on the chips. The chips are enclosed in a metal container, and one of the questions is whether the seal to that container leaks. From her test, she is sure that the chip is a “leaker”—the seal is not airtight so that water and corrosion will seep in over time and damage the chip. She has come to Goodearl for advice. Should she do what LaRue wants and pass a chip she knows is a leaker?

### Alternatives

1. Goodearl should advise Lightner to go along with LaRue. He is her supervisor. If he orders to pass the chip, then she should do so.

2. Goodearl should go to Human Resources with Lightner and file a harassment complaint against LaRue. Skipping tests is clearly illegal and ordering an employee to commit an illegal act is harassment.
3. Goodearl and Lightner should blow the whistle. They should go to the U.S. defense department and inform them of the fact that Hughes Aircraft is delivering chips that have either failed tests or have not been tested.
4. Your solution. . . .

### Scenario 3: Goodearl, Ibarra, and the AMRAAM Incident

Now that Goodearl had few sympathizers among upper management, she increasingly turned to Ruth Ibarra in Quality assurance for support in her concerns about test skipping and the falsification of paperwork. One day, Goodearl noticed that some AMRAAM chips with leak stickers were left on her project desk in the environmental testing area. The leak stickers meant that the seal on the chips' supposedly airtight enclosure had failed a test to see if they leaked. AMRAAM meant that the chips were destined to be a part of an Advanced Medium Range Air-to-Air Missile. Goodearl knew that these parts could not be retested and needed to be simply thrown away. So why was someone keeping them? She also knew that these were officially "hot parts" and that the company was behind schedule in shipping these parts. After consulting with Ruth Ibarra, the two of them decided to do some sleuthing. They took the chips and their lot travelers to a photocopy machine and made copies of the travelers with "failed" noted on the leak test. They then replaced the chips and their travelers on the desk. Later that day, as Don LaRue passed the desk, Goodearl asked Don LaRue if he knew anything about the chips. "None of your business," he replied. The chips disappeared, and later the travelers showed up in company files with the "failed" altered to "passed." So, Goodearl and Ibarra had clear evidence (in their photocopy of the "failed" on the traveler) that someone was passing off failed chips to their customers. And these were important chips, part of the guidance system of an air-to-air missile.

**Alternatives: Since they have clear evidence, Goodearl and Ibarra should blow the whistle. Evaluate each of the following ways in which they could blow the whistle**

1. Blow the whistle to Hughes' Board of Directors. In this way they can stop the test skipping but will also be able to keep the whole affair "in house."
2. Blow the whistle to the local news media. In this way they will shame Hughes into compliance with the testing requirements.
3. Take the evidence to the U.S. Department of Defense, since they are the client and are being negatively impacted by Hughes' illegal actions.
4. Some other mode of blowing the whistle. . . .

**Solution Evaluation Matrix**

<b>Alternatives/Tests</b>	<b>Reversibility/Right Test</b>	<b>Harm/Benefits Test</b>	<b>Virtue/Value Test (Also Publicity)</b>	<b>Global Feasibility Test (Implementation Obstacles)</b>
<i>continued on next page</i>				

<b>Alternative One (Worst Alternative)</b>	Evaluate Alt 1 using reversibility/ rights test			
<b>Alternative Two (Best among those given)</b>		Weigh harms against benefits for alt 2		
<b>Alternative Three</b>			What values/disvalues are realized in alt 3?	
<b>Your Solution</b>				What obstacles could hinder implementation of solution?

Table 6.7

### 6.3.3 Ethics Tests: Set Up and Pitfalls

#### III. Solution Evaluation Tests

- **REVERSIBILITY:** Would I think this is a good choice if I were among those affected by it?
- **PUBLICITY:** Would I want to be publicly associated with this action through, say, its publication in the newspaper?
- **HARM/BENEFICENCE:** Does this action do less harm than any of the available alternatives?
- **FEASIBILITY:** Can this solution be implemented given time, technical, economic, legal, and political constraints?

#### Harm Test Set-Up

- Identify the agent (=the person who will perform the action). Describe the action (=what the agent is about to do).
- Identify the stakeholders (individuals who have a vital interest at risk) and their stakes.
- Identify, sort out, and weight the expected results or consequences.

#### Harm Test Pitfalls

- Paralysis of Action—considering too many consequences.
- Incomplete analysis—considering too few results.
- Failure to weigh harms against benefits.
- Failure to compare different alternatives.
- Justice failures—ignoring the fairness of the distribution of harms and benefits.

#### Reversibility Test Set-Up

- Identify the agent
- Describe the action
- Identify the stakeholders and their stakes
- Use the stakeholder analysis to select the relations to be reversed.
- Reverse roles between the agent (you) and each stakeholder: put them in your place (as the agent) and yourself in their place (as the target of the action)

- If you were in their place, would you still find the action acceptable?

### Reversibility Pitfalls

- Leaving out a key stakeholder relation.
- Failing to recognize and address conflicts between stakeholders and their conflicting stakes.
- Confusing treating others with respect with capitulating to their demands (Reversing with Hitler).
- Failing to reach closure, i.e., an overall global reversal assessment that takes into account all the stakeholders the agent has reversed with.

### Public Identification Set-Up

- Set up the analysis by identifying the agent, describing the action under consideration, and listing the key values or virtues at play in the situation.
- Associate the action with the agent.
- Identify what the action says about the agent as a person. Does it reveal him or her as someone associated with a virtue/value or a vice?

### Public Identification Pitfalls

1. Action is not associated with the agent. The most common pitfall is failure to associate the agent and the action. The action may have bad consequences and it may treat individuals with disrespect but these points are not as important in the context of this test as what they imply about the agent as a person who deliberately performs such an action.
2. Failure to specify the moral quality, virtue, or value of the action that is imputed to the agent in the test. To say, for example, that willfully harming the public is bad fails to zero in on precisely what moral quality this attributes to the agent. Does it render him or her unjust, irresponsible, corrupt, dishonest, or unreasonable?

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### Gray Matters in Hughes Exercises

This media object is a downloadable file. Please view or download it at  
<GM\_Hughes\_V2.doc>

**Figure 6.1:** These exercises present three decision points from Hughes, solution alternatives, summaries of ethics and feasibility tests, and a solution evaluation matrix. Carry out the exercise by filling in the solution evaluation matrix.

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This timeline is taken from the Computing Cases website developed and maintained by Dr. Charles Huff at St. Olaf College. Computing Cases is funded by the National Science Foundation, NSF DUE-9972280 and DUE 9980768.

### 6.3.4

#### Time Line



1979	Ruth Ibarra begins working for Hughes Aircraft company's Microelectronic Circuit Division (Hughes MCD) in Newport Beach, CA
1981	Margaret Goodearl begins working for Hughes MCD as a supervisor for assembly on the hybrid production floor and as a supervisor in the hybrid engineering lab
1984	Ibarra becomes supervisor for hybrid quality assurance
1985	Goodearl asks Ibarra to look at errors in paperwork, Ibarra brings errors to the attention of her supervisors and was told to keep quiet. This begins time period where Goodearl/Ibarra become aware of problems in hybrid chip testing and paperwork.
1986	Goodearl becomes supervisor for seals processing in the environmental testing area.
1986	False Claims Act (31 U.S. C 3729-3733) becomes False Claims Reform Act of 1986 making it stronger and easier to apply.
Oct. 1986	Goodearl/Ibarra report problems of Hughes management, and, after the problems were not fixed, Goodearl/Ibarra reported the allegations of faulty testing to the United States Department of Defense.
Jan 9, 1987	Earliest date that Hughes may have stopped neglecting environmental screening tests.
1988	Ibarra leaves Hughes feeling that her job had been stripped of all real responsibility.
March 1989	Goodearl is laid off from Hughes.
1995	Goodearl and her husband are divorced.

Table 6.8

## Civil Suit Timeline

1990-1996	United States of America, ex rel. Taxpayers Against Fraud, Ruth Aldred (was Ibarra), and Margaret Goodearl v. Hughes Aircraft Company, Inc.
1990	Goodearl files wrongful discharge suit against Hughes and a number of individual managers, which was eventually dropped in favor of the civil suit.
<i>continued on next page</i>	

May 29, 1990	Thinking the government investigation was taking too much time, Goodearl/Aldred file civil suit against Hughes under False Claims Reform Act of 1986 with the help of Taxpayers Against Fraud and Washington law firm Phillips and Cohen.
December 1992	Under provisions of the FCA, the U.S. Department of Justice Civil Division takes over the civil case.
Sep. 10, 1996	Hughes found guilty in civil trial. Pays U.S. Government 4,050,00 dollars and each relator 891,000 dollars plus a separate payment of 450,000 dollars to cover attorney's fees, costs, and expenses.

Table 6.9

**Criminal Suit Timeline**

1991-1993	United States of America v. Hughes Aircraft Co., and Donald LaRue
December 13, 1991	After a lengthy investigation, the U.S. Department of Defense charges Hughes and Donald A. LaRue with a 51-count indictment accusing it of falsifying tests of microelectronic circuits (criminal suit).
June 15, 1992	Hughes found guilty of conspiring to defraud the U.S. Government in criminal case, co-defendent LaRUE acquitted following 4-week trial. Goodearl/Aldred called as witnesses in trial. Hughes appeals.
Oct. 29, 1992	Hughes fined 3.5 million in criminal trial decision.
December 2, 1993	Appellate court upholds 1992 criminal conviction and sentence. Hughes appeals.

Table 6.10

**6.3.5 Hughes Case Socio Technical System****Hughes Socio Technical System**

	Hardware/Software	Physical Surroundings	People, Roles, Structures	Procedures	Laws and Regulations	Data and Data Structures
<i>continued on next page</i>						

Description	Hybrid Chips (circuitry hermetically sealed in metal or ceramic packages in inert gas atmosphere)	Battle conditions under which chips might be used	Hughes Microelectric Circuit Division	Chip Testing: Temperature Cycle, Constant Acceleration, Mechanical Shock, Hermeticity (Fine and Gross Leak), P.I.N.D.	Legally Mandated Tests	Lot Travelers to document chips
	Analogue to Digital Conversion Chips	E-1000 at Hughes (Clean Room)	Department of Defense (Office of Inspector General)	Hughes Human Resources Procedures for Complaints	Whistle Blower Protection Legislation	
	Radar and Missile Guidance Systems		Hughes Quality Control	Dissenting Professional Opinions	Qui Tam Lawsuit, Civil Suit, Criminal Suit	
			Individuals: Reismueller, Temple, Saia, LaRue, Goodearl, Ibarra/Aldren			

Table 6.11

### 6.3.6 Responsible Dissent

#### Sources

- Computing Cases is the primary source for the material below on responsible dissent. It is based on the materials for responsibly carrying out dissent and disagreement that was formerly posted at the IEEE website. The IEEE has since taken this material down.
- The Online Ethics Center has also posted the IEEE material on responsible dissent. The origin of this material as well as a thorough discussion of its content can be found in Carolyn Whitbek, **Ethics in Engineering Practice and Research: 2nd Edition**, Cambridge, UK: Cambridge University Press, 2011. Chapter 7, "Workplace Rights and Responsibilities, pp. 227-269.
- Much of this material (IEEE Guidelines and a discussion of Dissenting Professional Opinion Guidelines) can be found in Chapter 7 ("Averting the Conflict at the Source") in the following: Stephen H., Unger, **Controlling Technology: Ethics and the Responsible Engineer: 2nd Edition**, New York: John Wiley and Sons, INC.

#### Generic Forms of Dissent

- **Gather more information**
- **Nolo Contendere** (Don't fight it. Go along.)
- **Oppose diplomatically.** Offer your supervisor alternatives to the wrong he or she has ordered.
- **Oppose by confronting.** Threaten to go over your supervisor's head or threaten to blow the whistle.
- **Distance yourself.** Ask to be transferred to another section to avoid being implicated in the wrongdoing.
- **Exit.** Quit and do nothing or quit and blow the whistle.
- **Document your position** if your company has a Dissenting Professional Opinion process. If it doesn't, work to have one implemented. By establishing your opposition, you distance yourself morally from the wrong you have documented.
- Which one is right? Use your tests. Which does the best job of satisfying the three ethics tests of reversibility, harm, and publicity? Which does the best job with the ADEM values: justice, responsibility, respect, trust, and integrity?

### Introduction to Circumstances of Compromise

The following presents the circumstances of compromise as laid down by Martin Benjamin in **Splitting the Difference**. (See below for complete reference.) Benjamin provides five conditions that indicate when a compromise may be necessary. But he also argues that integrity helps draw a line beyond which compromise must not go. One should not sacrifice basic beliefs that constitute one's personal identity or self system. A good example of using integrity to draw the line on compromise can be found in the characterization of Thomas More in Robert Bolt's **A Man for All Seasons**. (See also the movie of the same name.) In the preface to the play, Bolt explicitly presents what follows as an exercise in articulating and testing integrity.

### Circumstances of Compromise

- Under these conditions it may be necessary to "split the difference."
- **Factual uncertainty**
- **Moral complexity.**
- **Continuing Cooperative Relationship**
- **Decision cannot be deferred**
- **Scarcity of Resources**

### More on Moral Complexity

Martin Benjamin in *Splitting the Difference* quotes John Rawls on moral complexity: "**Diversity naturally arises from our limited powers and distinct perspectives; it is unrealistic to suppose that all our differences are rooted in ignorance and perversity, or else in the rivalries that result from scarcity....Deep and unresolvable differences on matters of fundamental significance...[must be acknowledged] as a permanent condition of human life.**"

### Application of Circumstances of Compromise

- **Factual Uncertainty.** Where are the chips under consideration going? If they go to an essential system in an operative technology, then their malfunctioning could lead to loss of life. If they go to a non-essential system (like a prototype being tested) then maybe the testing process can be streamlined. This may require compromise between Hughes management, chip-testing team, and customers.
- **Moral Complexity:** How should an employee like LaRue weigh his loyalty to supervisors and company and his obligation to the public and client? Setting aside his harassment of Gooderal, is Saia's position (or at least a part of it) morally defensible?
- **Continuing cooperative relationship:** How important should it be to Gooderal that she needs to sustain her relationship with her supervisor, LaRue, for the long term? How important is it that Hughes managers respond to difficult messages rather than attempt to "shoot the messenger." (Again, thinking in terms of continuing cooperative relationship?)
- **Decision cannot be deferred:** Why is it impossible to defer the decision on whether to respond to test skipping? This case poses several difficult constraints. How many of these can be "pushed back"

through negotiation? Could Saia use his newly found accessibility to customers to negotiate with them an extension on the delivery deadlines?

- **Scarcity of resources:** How are the resources of time, personnel, and money scarce in this case? Is there any way to push back these constraints by negotiating more time (extending deadlines for delivering chips), personnel (bringing in additional people to test chips), and resources (developing better tools to test chips more quickly). Could, for example, it be possible to transfer Hughes employees from other areas to help out, temporarily, on chip testing?

### Ethical Dissent

1. Establish a clear technical foundation.
2. Keep your arguments on a high professional plane, as impersonal and objective as possible, avoiding extraneous issues and emotional outbursts.
3. Try to catch problems early, and keep the argument at the lowest managerial level possible.
4. Before going out on a limb, make sure that the issue is sufficiently important.
5. Use (and help establish) organizational dispute resolution mechanisms.
6. Keep records and collect paper.
7. These items originate with the IEEE which has dropped them from their website. They can be accessed through the link above with the Online Ethics Center; the list there is more complete. The above is quoted from the Computing Cases website: [http://computingcases.org/case\\_materials/hughes/support\\_docs/whistleblowing/ethical\\_dissent.html](http://computingcases.org/case_materials/hughes/support_docs/whistleblowing/ethical_dissent.html).

### Before Going Public

1. Make sure of your motivation.
2. Count your costs.
3. Obtain all the necessary background materials and evidence.
4. Organize to protect your own interests.
5. Choose the right avenue for your disclosure.
6. Make your disclosure in the right spirit.
7. These items come from the IEEE (see onlineethics link) and from the manuscript of **Good Computing** by Chuck Huff, William Frey, and Jose Cruz.

### Places to Go

1. Government Agencies
2. Judicial Systems
3. Legislators
4. Advocacy Groups
5. News Media
6. In Puerto Rico, laws 14 and 426 have been passed to protect those who would blow the whistle on government corruption. The Oficina de Etica Gubernamental de Puerto Rico has a whistle blower's hotline. See link above.

### When to Blow the Whistle.

1. Serious and Considerable Harm
2. Notification of immediate supervisor.
3. Exhaustion of internal channels of communication/appeal.
4. Documented Evidence.
5. Likelihood of successful resolution.
6. When the first three conditions are satisfied, whistle-blowing is **morally permissible**. (You may do it but you are not required or obligated to do it.) This is because you have brought your concerns before decision-makers, given them a chance to respond, and, in the face of their unwillingness to do so, still find the issue of great importance.

7. When all five conditions are satisfied, then whistle-blowing becomes **morally obligatory**. In this case, you have a moral duty to blow the whistle. Here, your duty is grounded in your responsibility to inform those who are likely to be harmed by the wrongdoing.

## References

1. Richard T. De George, "Ethical Responsibilities of Engineers in Large Organizations: The Pinto Case," in **Ethical Issues in Engineering**, ed. Deborah G. Johnson (1991) New Jersey: Prentice-Hall: 175-186.
2. Carolyn Whitbeck (1998) *Ethics in Engineering Practice and Research*. U.K. Cambridge University Press: 55-72 and 176-181.
3. Charles Harris, Michael Pritchard and Michael Rabins (2005) *Engineering Ethics: Concepts and Cases*, 3rd Ed. Belmont, CA: Thomson/Wadsworth: 203-206.

### 6.3.7 Hughes Dramatic Rehearsals

#### A note on dramatic rehearsals

- The notion of dramatic rehearsal comes from John Dewey's **Human Nature and Moral Conduct**. An agent works through a solution alternative in the imagination before executing it in the real world. The dramatic rehearsal tests the idea in a mental laboratory created by the moral imagination. Steven Fesmire in his book, **John Dewey and Moral Imagination: Pragmatism in Ethics** (Indiana University Press, 2003), provides a comprehensive interpretation of Dewey's suggestive idea.
- The scenarios portrayed below reflect events in the case but some changes have been made to create six focused decision points. For a more accurate portrayal of the case events, see Computing Cases ([computingcases.org](http://computingcases.org))

#### 6.3.7.1 Decision Point One

##### Decision Point One

- Frank Saia has worked at Hughes Aircraft for a long time. Now he is faced with the most difficult decisions of his career. He has been having problems in the environmental testing phase of his microchip manufacturing plant; the detailed nature of these tests has caused Hughes to be consistently late in delivering the chips to customers.
- Because of the time pressure to deliver chips, Saia has been working to make the production of chips more efficient without losing the quality of the product. Chips are manufactured and then tested, and this provides two places where the process can bottle up. Even though you might have a perfectly fine chip on the floor of the plant, it cannot be shipped without testing. And, since there are several thousand other chips waiting to be tested, it can sit in line for a long time. Saia has devised a method that allows testers to put the important chips, the "hot parts," ahead of the others without disrupting the flow and without losing the chips in the shuffle. He has also added a "gross leak" test that quickly tells if a chip in a sealed container is actually sealed or not. Adding this test early in the testing sequence allows environmental testing to avoid wasting time by quickly eliminating chips that would fail a more fine-grained leak test later in the sequence.
- Because environmental testing is still falling behind, Saia's supervisors and Hughes customers are getting angry and have begun to apply pressure. Karl Reismueller, the director of the Division of Microelectronics at Hughes, has given Saia's telephone number to several customers, whose own production lines were shut down awaiting the parts that Saia has had trouble delivering. His customers are now calling him directly to say "we're dying out here" for need of parts.

##### Dialogue for Decision Point One

- Construct a dialogue in which Saia responds to the pressure from his supervisor, Karl Reismueller
- Be sure to address the customer complaints

### 6.3.7.2 Decision Point Two

#### Decision Point Two

- Frank Saia has discovered that an employee under his supervision, Donald LaRue, has been skipping tests on the computer chips. Since LaRue began this practice, they have certainly been more on time in their shipments. Besides, both LaRue and Saia know that many of the “hot” parts are actually for systems in the testing phase, rather than for ones that will be put into active use. So testing the chips for long-term durability that go into these systems seems unnecessary. Still, LaRue was caught by Quality Control skipping a test, and now Saia needs to make a decision. Upper management has provided no guidance; they simply told him to “handle it” and to keep the parts on time.
- He can’t let LaRue continue skipping tests, or at least he shouldn’t let this skipping go unsupervised. LaRue is a good employee, but he doesn’t have the science background to know which tests would do the least damage if they were skipped. He could work with LaRue and help him figure out the best tests to skip so the least harm is done. But getting directly involved in skipping the tests would mean violating company policy and federal law.

#### Dialogue

- Construct a dialogue in which Saia confronts LaRue about skipping the tests
- Address the following issues:
- Should Saia work with LaRue to identify tests that are not necessary and then have LaRue skip these?
- How should Saia and LaRue deal with the concerns that Quality Control has expressed about skipping the tests? Your first item here

### 6.3.7.3 Decision Point Three

#### Decision Point Three

- Margaret Goodearl works in a supervisory position in the environmental testing group at Hughes Aircraft. Her supervisor, Donald LaRue, is also the current supervisor for environmental testing. The group that LaRue and Goodearl together oversee test the chips that Hughes makes in order to determine that they would survive under the drastic environmental conditions they will likely face. Rigorous testing of the chips is the ideal, but some chips (the hot chips) get in line ahead of others. Goodearl has found out that over the last several months, many of these tests are being skipped. The reason: Hughes has fallen behind in the production schedule and Hughes upper management and Hughes customers have been applying pressure to get chip production and testing back on schedule. Moreover, LaRue and others feel that skipping certain tests doesn’t matter, since many of these chips are being used in systems that are in the testing phase, rather than ones that will be put into active use.
- A few months after Margaret Goodearl started her new position, she was presented with a difficult problem. One of the “girls” (the women and men in Environmental Testing at Hughes), Lisa Lightner, came to her desk crying. She was in tears and trembling because Donald LaRue had forcefully insisted that she pass a chip that she was sure had failed the test she was running.
- Lightner ran the hermeticity test on the chips. The chips are enclosed in a metal container, and one of the questions is whether the seal to that container leaks. From her test, she is sure that the chip is a “leaker”—the seal is not airtight so that water and corrosion will seep in over time and damage the chip. She has come to Goodearl for advice. Should she do what LaRue wants and pass a chip she knows is a leaker?

**Dialogue**

- Construct a dialogue that acts out Goodearl's response to her knowledge that LaRue is regularly skipping tests
- Should Goodearl first talk directly to LaRue? What if he responds defensively?
- Should Goodearl go over LaRue's head and discuss his skipping the tests with one of his supervisors? To whom should she go? How could she prepare for possible retaliation by LaRue? What should she know before doing this?
- If LaRue or another supervisor should fail to respond to the test skipping, should Goodearl continue responsible dissent or drop the issue (=nolo contendere)
- Could Goodearl not contend the issue but distance herself? (What if Hughes has no DPO procedure?)

**6.3.7.4 Decision Point Four**

Ruth Ibarra (from Quality Assurance) has seen Shirley Reddick resealing chips without the authorization stamp. Ibarra has asked Goodearl to find out what's going on. When Goodearl asks LaRue, he replies, "None of your damn business." Shortly after this, Goodearl receives a phone call from Jim Temple, one of her superiors, telling her to come to his office. Temple informs Goodearl in no uncertain terms that she needs to back down. "You are doing it again. You are not part of the team, running to Quality with every little problem." When Goodearl insisted she did not "run to Quality" but Quality came to her, Temple replies, "Shape up and be part of the team if you want your job."

**Dialogue**

- Construct a dialogue in which Goodearl responds to this latest test skipping issue
- Consider these issues in constructing your dialogue:
- Goodearl had already confronted LaRue about test skipping when Lisa Lightner came to her. After failing to get results, she had decided to drop the issue
- How should Goodearl respond to Temple? Should she continue pushing responsible dissent or give way to Temple's threats?

**6.3.7.5 Decision Point Five**

- After her conversation with Temple, Goodearl goes to the Personnel Department to inquire into filing a harassment complaint against her supervisors at Hughes
- After her discussion she sees the personnel official leave his office and turn toward Frank Saia's office, one of Goodearl's supervisors.
- Goodearl is then called to Saia's office. An angry Saia throws his glasses at her and threatens to fire her if she persists. He also asks her where she gets off filing a harassment charge against him.

**Dialogue**

- Construct a dialogue in which Goodearl reacts to Saia both during Saia's outburst and after it.
- Is Saia harassing Goodearl? (How do we define "harassing" in this context?)
- How should Goodearl respond given that Saia's latest outburst was caused by the personnel official reporting to him the confidential meeting he had with Goodearl?
- What are Goodearl's options at this point? Are any of the strategies for responsible dissent we have studied so far relevant or of use?



### 6.3.7.6 Decision Point Six

#### Decision Point Six

- Margaret Goodearl and Ruth Ibarra have made several attempts to get their supervisors to respond to the problem of skipping the environmental tests. The general response has been to shoot the messenger rather than respond to the message. Both Goodearl and Ibarra have been branded trouble makers and told to mind their own business. They have been threatened with dismissal if they persist.
- So they have decided to blow the whistle, having exhausted all the other options. They initiated contact with officials in the U.S. government's Office of the Inspector General. These officials are interested but have told Goodearl and Ibarra that they need to document their case.
- One day they find two hybrids (chips that combine two different kinds of semiconductor devices on a common substrate) on LaRue's desk. These chips which are destined for an air-to-air missile have failed the leak test. It is obvious that LaRue plans on passing them without further testing during the evening shift after Goodearl has gone home. Goodearl and Ibarra discuss whether this presents a good opportunity to document their case for the Office of the Inspector General.

#### Dialogue

- Construct an imaginary conversation between Goodearl and Ibarra where they discuss different strategies for documenting their concerns to the Office of the Inspector General?
- Have them consider the following:
- By looking for documented evidence against their employer, have Goodearl and Ibarra violated their duties of trust and confidentiality?
- Some argue that before blowing the whistle, an employee should exhaust internal channels. Have Goodearl and Ibarra discuss whether they can do anything more inside Hughes before taking evidence outside

### 6.3.7.7 Questions on Dramatic Reflections

#### Directions:

After you have acted out your decision point in the Hughes case, you and your group have two further activities. First, you will answer the questions below to help you reflect generally on the nature of dramatic rehearsals and specifically on recent dramatization. These five questions (outlined in detail just below) ask you to discuss your dramatic form, the form of responsible dissent you used, how the action you dramatized fared with the three ethics tests, the value and interest conflicts you dealt with, and the constraints that bordered your decision point. Second, you will provide a storyboard that summarizes the drama you acted out before class. This is also detailed just below.

As was said above, John Dewey suggested the idea that underlies these dramatic rehearsals or What-if dramas. As Dewey puts it "**[d]eliberation is actually an imaginative rehearsal of various courses of conduct. We give way, in our mind, to some impulse; we try, in our mind, some plan. Following its career through various steps, we find ourselves in imagination in the presence of the consequences that would follow: and as we then like and approve, or dislike and disapprove, these consequences, we find the original impulse or plan good or bad. Deliberation [becomes] dramatic and active....**" (Dewey, 1960, p. 135) Think of your "dramatic rehearsal" as an experiment carried out in your imagination. The hypothesis is the alternative course of action decided upon by your group that forms the basis of your "What-if" rehearsal. Imagine that you carry out your alternative in the real world. What are its consequences? How are these distributed? How would each of the stakeholders in your case view the action? How does this fit in with your conception of a moral or professional career? Your imagination is the laboratory in which you test the action your group devises as a hypothesis.

This quote will also help you understand the concept of dramatic rehearsal. It comes from John Gardner, a famous novelist, and Mark Johnson, a theorist in moral imagination. **John Gardner has argued that**

fiction is a laboratory in which we can explore in imagination the probable implications of people's character and choices. He describes what he calls "moral fiction" as a "philosophical method" in which art "controls the argument and gives it its rigor, forces the writer to intense yet dispassionate and unprejudiced watchfulness, drives him—in ways abstract logic cannot match—to unexpected discoveries and, frequently, a change of mind." (Johnson, p. 197; Gardner, p. 108).

There are different versions of what form dramatic form takes. In general there is plot, character, agon (struggle or confronting obstacles), resolution, and closure. A drama is a narrative, an unfolding of related events in time. One event arises to give way to another and so forth. Dramas can be driven by the ends of the characters and the unfolding can be the realization or frustration of these activities. Dramatic rehearsals take isolated actions and restore them to this context of dramatic form.

### 1. What is the dramatic form taken on by your enactment?

- Perhaps your drama is a **comedy**. Many groups have chosen this form but have found it hard to explain why. How does comedy help your group to get its message across? What is its message?
- Some groups have approached this rehearsal as a **tragedy** where the good intentions and goals of those involved all turned out bad. In many ways, this is how the case played out in reality. So, if your group chose tragedy, then it is important to state why there were no viable alternatives to the choices actually made by the participants in the Hughes case. What constraints prevented the agents from achieving their ends? (Look for more than just bad people here.)
- Some groups decided to frame their rehearsal as a **documentary**. Here a narrator describes and frames the activities carried out by the different participants offering commentary and analysis.
- Continuing with the documentary line, some groups have presented their drama as **proceedings in a trial** where a judge presides over attorneys presenting the arguments from both sides. This approach has the advantage of laying out the different perspectives but when the judge reaches a decision, it takes on the risk of oversimplifying the case by making one side completely right and the other completely wrong. The "winner takes all" interpretation of a court trial (guilty-innocent) often leaves out moral complexity.
- Some groups convert their dramas into **Quixotic ventures** where they "tilt at windmills." Here they try to present scenarios where idealistic participants strive to realize their values over difficult, constraining and harsh realities. The advantage of this approach is that it does not compromise on values and ideals. The disadvantage is that it may underestimate elements in the real world that oppose acting on the ideal. Realizing the "intermediate possible" may be the best route here.
- Some groups approach their dramatizations as **cautionary tales** where they act out the harsh consequences that attend immoral, greedy, selfish, or corruption action. Here the world is constrained by justice. Those who hubristically try to exceed these constraints are punished for their transgressions. Cautionary tales are more moralistic than tragedies but, at some point, converge on this other dramatic form.
- You are, of course, encouraged to go beyond this list by inventing your own dramatic form or combining those listed above to produce a new, synthetic form. The point here is that dramatic forms both filter and structure elements of this complicated case. I am asking that you be deliberate and thoughtful about how you work your way through the Hughes case. What did your dramatic form leave out? How did it structure the drama differently than other forms? Why did you choose the form you chose?

### 2. Your dramatic rehearsal also should test the three forms of responsible dissent we studied this semester.

- **Generic Forms of Dissent.** Did your rehearsal test any of the generic forms of dissent such as gather more information, nolo contendere, oppose diplomatically, oppose confrontationally, distance yourself, or exit?
- **Moral Compromise.** Did your rehearsal deploy any of the strategies of moral compromise? For example, referring to the Ethics of Teamwork, did it deploy bridging, logrolling, expanding the pie, or

non-specific compensation? Were you able to get things moving by negotiating interests rather than person-based positions? What were the circumstances that elicited compromise? For example, does the Hughes case display any "moral complexity?"

- **Blowing the Whistle.** If your drama followed the case and advocated blowing the whistle, provide a justification using the class framework. For example, argue that whistleblowing was permissible or that it was obligatory. To whom do you recommend blowing the whistle given the problems Ibarra and Goodearl had with the Inspector General's office? How would you recommend they go about gathering documented evidence? What should they do before blowing the whistle? In short, do more, both in your drama and in this reflection, than just advocate the action. Describes the means, complexities, and circumstances surrounding blowing the whistle on Hughes.

### 3. Outline your ethics experiment by examining the action you advocate using the three ethics tests.

- **Reversibility.** How does your action look when you reverse with the key stakeholders? Project into their shoes avoiding the extremes of too much identification and too little identification.
- **Harm.** What harms have you envisioned through your dramatic rehearsal? Are these harms less quantitatively and qualitatively than the action actually taken in the case?
- **Publicity.** Finally, project the action taken in your rehearsal into the career of a moral professional. Is it consistent with this career or does it embrace (or neglect) values out of place in such a career. In other words, carry out the publicity test by associating the values embedded in the action you portray with the character of a good or moral agent carrying out a moral, professional career.

### 4. Value and interest conflicts in your drama.

- All these decision points involve some kind of conflict. How did you characterize this conflict in your dramatization? Pose your conflict in terms of values. How did your drama "resolve" this value conflict?

### 5. Recognizing and dealing with the constraints you found in your decision point.

These drama/decision points had different kinds and degrees of constraints. Early decision points have fewer constraints than later because the earlier decisions both condition and constrain those that follow. Here is another issue you may need to address. Your feasibility test from the "Three Frameworks" module outlines three kinds of constraints: resource, interest (social or personality), and technical. Did any of these apply? Outline these and other constraints and describe how they were dealt with in your drama.

#### 6.3.7.7.1 Story Boards

##### Suggestions for Story Boards

- Divide your dramatization into four to six frames. Now draw a picture in each frame, one that captures a key moment of your dramatization.
- Check for continuity. Each frame should present elements that show how it emerges from the previous frame and how it transitions into the subsequent frame. The first frame should help the reader find the context in which your drama takes place. The last frame should provide as much closure as your drama permits.
- In general, your storyboard should summarize the dramatization you acted out in front of the rest of the class. But while acting through your drama, you received feedback from the class and, perhaps, began to rethink things. So feel free to make changes in your storyboard to reflect your deeper understanding of your decision point. If you make changes in your storyboard, discuss this in your dramatic reflections. Explain why you decided to change things.

### 6.3.7.8 Hughes Case Media Files

#### Hughes Case and Dialogue Points

[MEDIA OBJECT]<sup>21</sup> .

[MEDIA OBJECT]<sup>22</sup>

#### What If Dramatic Rehearsals

[MEDIA OBJECT]<sup>23</sup>

#### Debating Topics for ADMI 4016, Spring 2011

[MEDIA OBJECT]<sup>24</sup>

#### Jeopardy: Responsible Dissent

[MEDIA OBJECT]<sup>25</sup>

#### Jeopardy for codes of ethics

[MEDIA OBJECT]<sup>26</sup>

[MEDIA OBJECT]<sup>27</sup>

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<sup>21</sup>This media object is a downloadable file. Please view or download it at  
<Hughes\_V3a.pptx>

<sup>22</sup>This media object is a downloadable file. Please view or download it at  
<Responsible Dissent.pptx>

<sup>23</sup>This media object is a downloadable file. Please view or download it at  
<Hughes\_Drama\_V2.pptx>

<sup>24</sup>This media object is a downloadable file. Please view or download it at  
<Reflections on debate.pptx>

<sup>25</sup>This media object is a downloadable file. Please view or download it at  
<Jeopardy6.pptx>

<sup>26</sup>This media object is a downloadable file. Please view or download it at  
<Jeo\_Codes.pptx>

<sup>27</sup>This media object is a downloadable file. Please view or download it at  
<Hughes 2014.docx>

## 6.4 Capability Approach<sup>28</sup>

### 6.4.1 I. Introduction

#### Case 1 from *Women and Development* (Nussbaum)

Vasanti was compelled to marry at a young age. In her caste, women are generally treated as property; she went from being the property of the family in which she was raised to the being property owned by the family of her husband. Like any other piece of property, her husband, her owner, was free to dispose of her as he saw fit. He beat her, forced her to work, and took the wages she earned and spent them on his leisure and on alcohol. In order to fund his drinking, he had a vasectomy for which he received payment from the government. This ensured that he and Vasanti would not have children, something she wanted for her emotional fulfillment and for her security.

Does Vasanti have enough to live a life compatible with human dignity? If not, what does she lack?

#### Case 2 from *Women and Development* (Nussbaum)

Jayamma carried bricks for a living in order to support her family. although her work was harder than that performed by men, she was paid less than them. When she became too old to continue with this arduous labor, she applied for relief. The Indian government denied her this support because she had sons who were able to support her. But her sons refused to do so, and her daughter, a registered nurse who was willing to support her, could not because she could not pay the bribes necessary to buy her a job at the local hospital.

Does Jayamma have enough to live a life compatible with human dignity? If not, what does she lack?

### 6.4.2 II. Overview

Technologies need to be evaluated within the context of human projects, communities, and activities. In particular, they should be evaluated in terms of whether they promote or frustrate a life of dignity that can be spelled out in terms of substantial freedoms that Amartya Sen and Martha Nussbaum term capabilities.

Nussbaum and Sen characterize capabilities as “‘substantial freedoms,’ a set of (causally interrelated) opportunities to choose and act. [T]hey are not just abilities residing inside a person but also freedoms or opportunities created by a combination of personal abilities and the political, social, and economic environment.”

Sen and Nussbaum argue that a given capability, say bodily health, can be realized in different ways. The specific way a capability is realized is called its functioning. Resources (personal, social, and natural) that help turn capabilities into functionings are called conversion factors. A bicycle is a physical conversion factor that, under favorable conditions such as roads with decent surfaces, can turn the capability of bodily integrity into movement from home to work.

The Capabilities Approach changes the way we view developing communities and their members, replacing the view of developing communities as beset with needs and deficiencies with the view that they are repositories of valuable capabilities. Humans should strive to shape and reshape the surrounding socio-technical system to bring about the exercise and expression of fundamental human capacities. According to Nussbaum, capabilities answer the question, “What is this person able to do or be?”

The Capabilities Approach, thus, adds depth to appropriate technology by providing criteria for choice; a technology derives its “appropriateness” from how it resonates with basic human capabilities and more specifically by whether it provides “conversion factors” that transforms basic capabilities into active functionings.

Amartya Sen declines to provide a definitive list of capabilities, arguing that this list varies according to context. Nussbaum, by interviewing different women’s groups and especially by studying the plight of women in India, developed a list of capabilities and has made different modifications from time to time. She provides this list in several works. “Capabilities and Human Rights” provides an early version. Subsequent versions found in *Women and Development*, *Upheavals of Thought*, *Frontiers in Justice*, and *Creating Capabilities* provide the same list but with more detail and differences in emphasis. (For example, Nussbaum, based on her study of the situation of abused women in India, argues that property rights are essential and includes

<sup>28</sup>This content is available online at <<http://cnx.org/content/m47654/1.1/>>.

these in her discussion of the capability “Control Over One’s Environment.” Nobel Prize winning economist, Amartya Sen, originated the Capability Approach and has developed it through many publications; he gives a particularly illuminating account in *Development as Freedom* referenced below. Finally, Ingrid Robeyns summarizes much of the literature in two articles, a Stanford Encyclopedia of Philosophy article on the Capability Approach, which has been updated frequently, and a widely-sourced paper in the *Journal of Human Development*, “The Capability Approach: a theoretical survey.” A particularly important addition made by Robeyns is her discussion of “conversion factors” that help turn capabilities into functionings.

### 6.4.3 III. Precursors to the Capability or Human Development Approach

#### Aristotle

- Nussbaum mentions three precursors of the Capability Approach, Aristotle, Marx, and Smith.
- In the *Nicomachean Ethics*, Aristotle argues that practical reason (phronesis) makes humans unique among living things and among animals. Practical reason is not just added to other attributes that humans share with living things such as life, growth, reproduction, self-propelled movement, and perception/sensation; rather practical permeates each of these attributes that humans share with other beings to make these attributes peculiarly human.
- Aristotle, at the beginning of the *Politics*, also poses the classical conception of the human being as a social animal, a being that forms communities. Aristotle social conception of the human differs fundamentally with the prevalent economic view, *Homo Economicus*. According to Ghoshal, *Homo Economicus* characterizes humans as “rational self-interest maximizers. Human studies under *Homo Economicus* argues that social collectives must be reduced to the isolated, independent human beings that form their parts. This methodological individuals entails ontological atomism; as opposed to Aristotle’s conception of the human as the “social animal,” *Homo Economicus* sees humans as determinate and complete prior to and independently of any social relationships.
- The distinction between capability and function closely parallels the Aristotelian distinction between potentiality (dynamis) and actuality (energia); capabilities capture what humans are potentially and functionings capture the specific and unique way capabilities are realized by specific individuals in unique situations. Using a list of capabilities to outline human nature in its potentiality helps to set the minimal thresholds that must be met in order for humans to live lives of dignity without overly specifying or determining how individual turn these capabilities into functionings. In this way, capabilities represent different realms of freedom or choice.
- Finally, Aristotle outlines basic features that set boundaries to human being; humans are vulnerable (in that conditions can arise which prevent humans from realizing their potentialities) and mortal.

#### Smith

- Smith anticipates many of the fundamental theses of the capability approach. First, he agrees with Aristotle that humans are bounded by their mortality and vulnerability.
- Second, Smith agrees with the notion that the human is a social animal, contrary to the many individualistic interpretations that have been foisted upon him.
- Finally, Smith’s conception of human vulnerability led him to pose many governmental and social interventions to allow humans to act freely and humanly: the abolition of apprenticeship, laws against monopolies, restrictions on businesses lobbying government, and the abolition of slave trade.
- Contemporary interpretations of Smith incorrectly view him through the lens of Social Darwinism; they interpret Smith as advocating competition to bring about the survival of those who are socially the fittest. Since Smith wrote and lived before Darwin published his theory of evolution, this interpretation foists upon Smith views that he never held and would have rejected.

#### Marx

Marx, through his conception of the alienation of a human individual from his or her labor, updates Aristotle’s notion that practical reason transforms those characteristics that humans share with other living beings.

Nussbaum offers the following quote from Marx as evidence: **“It is obvious that the human eye gratifies itself in a way different from the crude, non-human eye; the human ear different from the crude ear, etc...The sense caught up in crude practical need has only a restricted sense. For the starving man, it is not the human form of food that exists, but only its abstract being as food; it could just as well be there in its crudest form, and it would be impossible to say wherein this feeding activity differs from that of animals.”** (Karl Marx, Economic and philosophical Manuscripts of 1844, translated by Martin Milligan, in R.C. Tucker (ed), *The Marx-Engels Reader*, New York, 1978: 88-89. Quoted in Nussbaum, *Human Nature*, 119.)

#### 6.4.4 IV. Capability Approach—Some Key Concepts:

This list of the central concepts of the Capability Approach is taken primarily from Nussbaum’s *Creating Capabilities* to get the latest developments of this movement. Some terms have been taken from Robeyns and others from Oosterlaken.

- **Capability Approach:** “The Capabilities Approach can be provisionally defined as an approach to comparative quality-of-life assessment and to theorizing about basic social justice. It holds that the key question to ask, when comparing societies and assessing them for their basic decency or justice is, “What is each person able to do and to be?” Nussbaum, *Creating Capabilities*, (18)
- **Capabilities:** “What are capabilities? They are the answers to the question, “What is this person able to do and to be? In other words, they are what Sen calls “substantial freedoms,” a set of (usually interrelated) opportunities to choose and to act. Nussbaum, *Creating Capabilities*, 20.
- **Basic Capabilities:** “Basic capabilities are innate faculties of the person that make later development and training possible.” *Creating Capabilities*, 24. An older definition comes from *Human Rights in Theory*: “the innate equipment of individuals that is the necessary basis for developing the more advanced capability. Most infants have from birth the basic capability for practical reason and imagination though they cannot exercise such functions without a lot more development and education.” HRT: 289. Or, *Women and Development* (Nussbaum): 84: “the innate equipment of individuals that is the necessary basis for developing the more advanced capabilities, and a ground of moral concern.
- **Internal Capabilities:** “developed states of the person herself that are, so far as the person herself is concerned, sufficient conditions for the exercise of the requisite functions. Unlike basic capabilities, these states are mature conditions of readiness.” WD: 84. And an earlier statement in HRT 289: “states of the person herself that are, so far as the person herself is concerned, sufficient conditions for the exercise of the requisite functions...[M]ost adult human beings everywhere have the internal capability to use speech and thought in accordance with their own conscience.”
- **Combined Capabilities:** “Finally, therefore, there are combined capabilities, which may be defined as internal capabilities combined with suitable external conditions for the exercise of the function.” WD: 84-5. Or HFT: “internal capabilities combined with suitable external conditions for the exercise of the function. A woman who is not mutilated but is secluded and forbidden to leave the house has internal but not combined capabilities for sexual expression—and work, and political participation.” HFT 289-290.
- **Functioning:** Nussbaum, CC: 24-5: “On the other side of capability is functioning. A functioning is an active realization of one or more capabilities. Functionings need not be especially active or, to use the term of one critic, “muscular.” Enjoying good health is a functioning, as is lying peacefully in the grass. Functionings are beings and doings that are the outgrowths or realizations of capabilities.”
- **Conversion Factor:** For Robeyns, conversion factors help convert a capability into a functioning. The example most often given is that of a bicycle which converts the capability of bodily movement into actually moving from one’s home to one’s place of work. But the bicycle only works as a conversion factor under certain conditions. Individuals must have the physical apparatus and stamina to actually ride the bicycle. And a bicycle would not work well in a desert where there were no roads. Robeyns points out that there are “three groups of conversion factors.” “[P]ersonal conversion factors (e.g. metabolism, physical condition, sex, reading skills, intelligence) influence how a person can

convert the characteristics of the commodity into a functioning....Second, social conversion factors (e.g. public policies, social norms, discriminating practices, gender roles, societal hierarchies, power relations) and, third, environmental conversion factors (e.g. climate, geographical location) play a role in the conversion from characteristics of the good to the individual functioning.” Robeyns, “Capability Approach: a theoretical survey, *Journal of Human Development*, 6(1), 2005: 99.

- **Zooming in and Zooming out:** Ilse Oosterlaken uses these two ideas to bring the philosophy of technology into contact with the capability approach. “Zooming in...allows us to see the specific features or design details of technical artifacts; zooming out...allows us to see how exactly technical artifacts are embedded in broader socio-technical networks and practices.” ‘Zooming in’ cites participatory and value-sensitive design as ways in which moral value and import are integrated into a technical artifact’s design. ‘Zooming out’ places the surrounding socio-technical context in the center of focus and concentrates on how a technical artifact is enrolled or integrated into this broader context. Technical artifacts, thus, are relational; the device must be understood in terms of how it functions in this broader socio-technical context. Zooming in and zooming out allow Oosterlaken to work around the dichotomy within the philosophy of technology between the social determination of technology and the technological determinism of society. Zooming in shows how value is designed into the artifact and how this works on the surrounding socio-technical environment. Zooming out shows how the technical artifact takes on meaning as it is ‘enrolled’ into a socio-technical system. (See *Taking a Capability Approach to Technology and Its Design: A Philosophical Exploration*, Introduction, 14. Simon Stevin Series in the Ethics of Technology). (See *Taking a Critical Approach to Technology and Its Design* 13 (table) and 14.)
- Mark Coeckelbergh in “How I learned to Love the Robot” looks at the importance of deploying “**techno-moral imagination**” in the exploration of the appropriateness of a technology for a given socio-technical system. (His example is the use of robots for care of the elderly.) As he puts it: “One way to proceed...is to study technological promises (research proposals, interviews in the media, and so on) and to write—not just read and discuss—fictional scenarios in order to imaginatively explore how future technologies could re-shape not only elderly care, but also our capabilities and their meaning.” This resembles John Dewey’s “dramatical rehearsals” where one imaginatively plays out a solution alternative or project in the mind in order to explore how readily it can be integrated into the real world. (Human Nature and Conduct and The Moral Life) Such experiments of imagination are described by John Gardner in Moral Fiction and actualized in many of his novels. (See especially The Sunshine Dialogues.) Mark Coeckelbergh, ““How I Learned to Love the robot”: Capabilities, Information Technologies, and Elderly Care.” in *The Capability Approach, Technology and Design*, Ilse Oosterlaken and Jeroen van den Hoven (eds). New York: Springer: 77-86.) Your first item here

### 6.4.5 V. Capabilities List

This next section quotes the Capabilities List given by Nussbaum in *Women and Development*, *Frontiers of Justice*, and *Creating Capabilities*. This list is taken from *Creating Capabilities*.

1. **Life.** Being able to live to the end of a human life of normal length; not dying prematurely, or before one’s life is so reduced as to be not worth living.
2. **Bodily health.** Being able to have good health, including reproductive health; to be adequately nourished ; to have adequate shelter.
3. **Bodily integrity.** Being able to move freely from place to place to be secure against violent assault, including sexual assault and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.
4. **Senses, imagination, and thought.** Being able to use the senses, to imagine, think, and reason—and to do these things in a “truly human” way, a way informed and cultivated by an adequate education including, but by no means limited to, literacy and the basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and



events of one's own choice, religious, literary, musical, and so forth. Being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Being able to have pleasurable experiences and to avoid nonbeneficial pain.

5. **Emotions.** Being able to have attachments to things and people outside ourselves; to love those who love, and care for us, to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and justified anger. Not having one's emotional development blighted by fear and anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.)
6. **Practical Reason.** Being able to form a conception of the good and to engage in critical reflection about the planning of one's life. (This entails protection for the liberty of conscience and religious observance.)
7. **Affiliation.** (A) Being able to live with and toward others, to recognize and show concern for other human beings, to engage in various forms of social interaction; to be able to imagine the situation of another. (Protecting this capability means protecting institutions that constitute and nourish such forms of affiliation, and also protecting the freedom of assembly and political speech.) (B) Having the social bases of self-respect and nonhumiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of nondiscrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin.
8. **Other species.** Being able to live with concern for and in relation to animals, plants, and the world of nature.
9. **Play.** Being able to laugh, to play, to enjoy recreational activities.
10. **Control over one's environment.** (A) Political. Being able to participate effectively in political choices that govern one's life; having the right of political participation, protections of free speech and association. (B) Material. Being able to hold property (both land and movable goods), and having property rights on an equal basis with others; having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure. In work, being able to work as a human being, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers. Your first item here

#### 6.4.6 VI. Two Aristotelian Notions

- Practical reason infuses all the activities or functions humans share with other things. Thus Aristotle argues that living, eating, growing, reproducing, and perceiving—activities shared with other beings—are made peculiarly human by being integrated throughout with practical reason (*phronesis*).
- Sociability and responsiveness refer to the Aristotelian doctrine that the human is the political animal. This means that it is in the nature of humans to make and live within social communities referred to by the Greek word, *polis*. Translating 'polis' as city state is as good as any translation but the terms city and state refer to entities that did not exist separately in Aristotle's Greece. The *polis* is a self-governing community that provides an environment where humans realize key potentialities (such as affiliation, emotion, and sense/imagination/thought). This doctrine is opposed to the radical individualism of Hobbes and Locke referred by MacPearson as "possessive individualism." (It is also opposed to *Homo Economicus* as described by Ghoshal and discussed briefly above.)

#### 6.4.7 VII. Limitations of Utilitarianism from the Capabilities Approach Perspective

- "[U]tilitarianism tends to think of the social total, or average, as an aggregate, neglecting the salience of the boundaries between individual lives."

- “A second problem with utilitarianism is its commitment to the commensurability of value, the concern to measure the good in terms of a single metric and thus to deny that there are irreducibly plural goods that figure in a human life.”
- Preferences, especially those forming the basis of preference utilitarianism, are notoriously subject to deformation that comes about when those deprived of preference satisfactions adjust their desires accordingly lower to meet what is possible.
- (These objections to utilitarianism are set forth in HTR, 281-282.)

#### 6.4.8 VIII. Human Capabilities and Human Rights

- Rights are combined capabilities. These are “internal capabilities combined with suitable external conditions for the exercise of the function.” 290 This sense of rights does not capture all senses but those versions which emphasize the correlativity of rights and duties do a good job of spelling out those individuals and social conditions that are necessary for the full exercise of a human right.
- “Rights can be prior to capabilities and a ground for the securing of a capability.” This claims assumes that a right is an “untrained power...that demands or calls for support from the world.” These powers generally sort out into two: “moral reasoning” and “power of moral choice.” So exercising a right assumes a certain set of capabilities like sense/imagination/thought, practical reasoning, and affiliation.
- Nussbaum also talks of rights as if they were basic and combined capabilities. This emphasis material rights to resources or utilities.
- Finally, Nussbaum points out certain important functions carried out by rights language (296). They “remind us that people have justified and urgent claims.” A right “tells people...that we are dealing with an especially urgent set of functions” that belongs to “all humans by virtue of their being human.” Rights language “emphasizes people’s choice and autonomy.” Finally, “Rights talk preserves a sense of the terrain of agreement.”
- These quotations are taken from Martha Nussbaum’s article, “Capabilities and Human Rights.” Martha C. Nussbaum, Capabilities and Human Rights, 66 Fordham L. Rev. 273 (1997). Available at: <http://ir.lawnet.fordham.edu/flr/vol66/iss2/2>

#### 6.4.9 IX. What you are going to do

##### Exercise One

Identify the capabilities realized by the following technical artifacts:

- Podcasting technology used in Zimbabwe to provide farmers information about cattle.
- The XO Laptops distributed to school children in the Global South as a part of the One Laptop Per Child program.
- The redesigning of airplane cockpits around specifications that fit better the requirements of women as pilots.
- The redesigned and implemented irrigation project implemented in India described by the “people’s choice” article.
- Automobiles as used by Amish communities in the US Midwest.

##### Exercise Two

Fundamental question posed by Nussbaum on a human life: **For the best and deepest of the meta-physical arguments brought forward seem to contain an evaluative component: that is, they ask us (implicitly or explicitly) to consider which functions of an alleged human being are so important, so central, that their absence will mean the absence of a human being or human life.” (“Aristotle on human nature and the foundations of ethics” 94)**

- Capabilities emphasize practical reason and human sociability and responsiveness.

- Nussbaum in “Aristotle on Human Nature” talks about how both Greek philosophy and drama carry out thought experiments that invite readers and audiences to ponder about the borders of human being.
  - Specifically, humans are contrasted with gods who lack mortality and vulnerability. Plato and Aristotle both argue that a life without these two defining limits cannot be considered or conceived as human.
  - Aristotle also sets forth practical reason as a capability that enters into all the other characteristics that humans share with other living things, transforming these functionings into human functionings; e.g. humans eat but they eat in a peculiarly human manner.
  - Finally, humans are political animals; this refers to both sociability and responsiveness (to other human individuals).
  - Putting these concepts discuss the following in terms of what they share and do not share with humans. (Examples are taken from the Lord of the Rings.)
1. **Orcs and goblins.** Orcs were bred from Elves in a process that clearly implies a degradation of the elf. How would orcs and goblins compare with Cyclops, Minotaurs, and other beings classified in Greek literature as beasts lacking fundamental human attributes. What would these attributes be? Are there, for example, distinctions to be made between the pleasures of a human and, say, those of a beast?
  2. **Hobbits.** Are Hobbits human in the Greek sense? (What characteristics do they share with humans? Are there any significant, boundary characteristics lacking? Are they more or higher than human in some sense(s)?)
  3. **Elves (and dwarves).** Both are immortal (or, in the case of dwarves, live much longer than humans). Nevertheless, both are vulnerable; e.g. both can be killed in battle. How would these differences serve to distinguish what was a fulfilling for these beings versus human beings?
  4. **Wizards.** Wizards can change shape and possess magical powers. At least the movie implies that they come from beyond the earth. They are immortal but vulnerable. (Gandalf went through a death of sorts in his fight with the Balrog.) Discuss how this mode of being would be different from that of humans.

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# Chapter 7

## Statement of Values

### 7.1 Value Profile: Justice<sup>1</sup>

#### 7.1.1 Value Profile: Justice

The root or core meaning of justice is giving to each what is due.

Suppose you are moving and are trying to decide how to pay the three workers who are helping you. Giving each his and her due might simply consist of paying all three the same amount. This version of what is due is egalitarian. Or you might give a bit more to the worker whose oldest child is sick and needs expensive medical treatments. This version of giving each what is due is more necessitarian, that is, distributing on the basis of need. Or you could wait until the move has already occurred and give the most to the worker who did the most; this could be termed a merit-based approach to what is due. This example is presented in different sources. One is Beauchamp and Bowie (1988). **Ethical Theory and Business, 3rd Edition**. Upper Saddle, NJ: Prentice-Hall, p. 552.

Justice, then, in its core sense implies a distribution of something that accords with our common ideas of fairness, equality, merit, and impartiality.

Moving from this core meaning, justice classically divides into different senses. These are different senses distinguished by Manuel Velasquez (2006), *Business Ethics: Concepts and Cases, 6th ed.* Upper Saddle River: NJ: Prentice-Hall, p. 88.

1. **Distributive Justice** examines how to divide and allot fairly the benefits and harms that result from social cooperation.
2. **Retributive Justice** concerns itself with the fair and impartial administration of punishment to wrongdoers.
3. **Compensatory Justice** scrutinizes how we fairly compensate those who have been wrongfully harmed by others.
4. **Administrative Justice** looks at how rules are fairly and impartially administered in a social, political, or organizational context.

#### 7.1.2 Justice, Hobbes, and the Social Contract

Many have worked to derive a conception of justice a version of the social contract. The exercises in this module have you look at justice as resulting from procedures derived from Thomas Hobbes (1588-1679) and John Rawls (1921-2002). (Hobbes selections come from Steven Cahn (editor), *Classics of Western Philosophy, 2nd Edition*. Indianapolis, IN: Hackett Press (1985): 361 and 368. Those on Rawls come from

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m45376/1.3/>>.

*Theory of Justice or Ethical Theory and Business* (edited by T Beauchamp and N Bowie, Upper Saddle, NJ: Prentice-Hall, 1988, pp. 559-567.

Hobbes sees the social contract as a procedure that takes us from a State of Nature (which is identical to a State of War) to Civil Society. Each contract has a *quid pro quo*, a mutually beneficial exchange. Individuals agree to lay down their natural liberties because these, combined with the acquisitiveness of human nature, have led to a state of war of all against all. To enforce this contract, each individual transfers his or her natural rights and powers to a sovereign who is charged with enforcing the contract they have made with one another.

This reduces to a formula: Rational Self-Interest + Knowledge of Human Nature + Natural Equality between all human individuals = a State of War. Why? Because human individuals are characterized individually by unlimited desire; without some check unlimited individual desire leads to conflicts between different individuals who desire the same thing.

The state of war is for Hobbes is highly undesirable. Life in the State of Nature is "solitary, poor, nasty, brutish, and short."

"Hereby it is manifest, that during the time men live without a common power to keep them in awe, they are in that condition which is called war; and such a war, as is of every man against every man....Whatsoever there is consequent to a time of war, where every man is enemy to every man; the same is consequent to the time, wherein men live without other security, that what their own strength, and their own invention shall furnish them withal. In such a condition there is no place for industry; because the fruit thereof is uncertain: and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving, and removing, such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short." T. Hobbes. (1651). **Leviathan: Edited with an Introduction by C. B. MacPherson** Middlesex, England: Penguin Books, p. 186.

Key Terms

**Rational Self-Interest:** For Hobbes, humans want to stay alive. Rational self-interest dictates that the individual will do whatever is necessary to ensure continued survival.

**State of Nature:** The absence of laws, social norms, and customs. Each has the liberty to do what he or she wants. Nothing but the opposition of other human individuals stands in the way of an individual fulfilling desire. Hobbes, viewing human nature through the lens of physics and the natural sciences, characterizes state of nature as a social and political vacuum where one pursues whatever one desires. Because desires do not limit themselves, unless they are unlimited from the outside, they lead individuals to come into conflict with one another. The State of Nature is nothing other than a State of War of all against all.

**Human Nature:** Hobbes' conception of human nature has been termed "possessive individualism" by C. B. Macpherson.

- First, the individual is an atom isolated from other individuals and from any kind of social or natural context. Each human individual has a nature prior to and independently of society.
- Second, if this individualism is possessive, then it is characterized by unlimited desire. Humans are determined by their desires and passions. So if two or more individuals desire the same thing, then conflict is inevitable.
- Third, Hobbes assumes a natural equality among human individuals. This doesn't mean that everyone has the same powers or that no individual has more of any power than another. All it need mean is that even the most powerful among us is unable to so completely dominate others that he or she can lock a guarantee on peace and security.

### Justice for Hobbes

In Chapter XV of the *Leviathan*, Hobbes defined justice: *From that law of nature, by which we are obliged to transfer to another, such rights, as being retained, hinder the peace of mankind, there followeth a third which is this, that men perform their covenants made: without which, covenants are in vain, and are but empty words; and the right of all men to all things remaining, we are still in the condition of war. And*

*in this law of nature, consisteth the fountain and original of justice. for where no covenant hath preceded, there hath no right been transferred, and every man has right to everything; and consequently, no action can be unjust. But when a covenant is made, the to break it is unjust: and the definition of injustice, is no other than the not performance of covenant. And whatsoever is not unjust, is just.* T. Hobbes. (1651). **Leviathan: Edited with an Introduction by C. B. MacPherson** Middlesex, England: Penguin Books, p. 201-202.

### Rousseau's criticism

Rousseau (1712-17178) provides an insightful criticism of Hobbes. He argues that Hobbes did not dig deep enough in his effort to reach human nature prior to its reconstitution by civil society. The acquisitive desires that Hobbes uses to describe Human nature in its pre-social form are actually, themselves, the products of civilization itself. They are introduced along with the notion of private property. Rousseau sees this as a degeneration from original human nature, the noble savage whom he views romantically.

*[Hobbes] had wrongly injected into the savage man's concern for self-preservation the need to satisfy a multitude of passions which are the product of society and which have made laws necessary. The evil man, he says, is a robust child. It remains to be seen whether savage man is a robust child....Moreover, there is another principle that Hobbes failed to notice, and which, having been given to man in order to mitigate, in certain circumstances, the ferocity of his egocentrism or the desire for self-preservation before this egocentrism of his came into being, tempers the ardor he has for his own well-being by an innate repugnance to seeing his fellow men suffer....I am referring to pity, a disposition that is fitting for beings that are as weak and as subject to ills as we are; a virtue all the more universal and all the more useful to man in that it precedes in him any kind of reflection, and so natural that even animals sometimes show noticeable signs of it.* Rousseau, "Discourse on the Origin of Inequality, Part One," in Jean-Jacques Rousseau: The Basic Political Writings. Indianapolis, IN: Hackett (1987): 53.

## 7.1.3 Justice, Rawls, and the Veil of Ignorance

### Rawls on Justice

In his 1971 book, **Theory of Justice**, John Rawls constructed a thought experiment to find the basic principles of **distributive** justice. Rawls begins with the central problem of distributive justice. The goods, harms, and risks that accompany social cooperation must be fairly and justly distributed. Three methods of distribution present themselves as leading candidates: equality, merit, and need.

- *Equality*: the benefits, harms, and risks of social cooperation are distributed equally among members of the social group.
- *Merit*: the greatest share goes to those who deserve it. Merit can be defined in terms of knowledge, skill, productivity or even moral virtue.
- *Need*: the greatest share goes to those who have the greatest need.
- Beauchamp and Bowie add distribution according to rights, effort, and societal contribution. Beauchamp and Bowie, **Ethical Theory and Business, 3rd Edition**, p. 44.

Rawls then constructs a thought experiment designed to solve this problem of distribution. Imagine a situation where a group of rationally self-interested individuals choose principles of distribution under a veil of ignorance. (This means that individuals will be making this choice unaware of their own special circumstances, for example, whether they will be rich or poor, born in a wealthy nation or in a developing country, endowed with natural talents or handicapped in some way, etc.)

1. Rational self-interest leads us to acquire as many primary goods as possible. These include (a) rights and liberties, (b) opportunities and powers, and (c) income and wealth.
2. Under the veil of ignorance, we pretend to know nothing of our situation. As Rawls puts it, under the veil of ignorance, **"no one knows his place in society, his class position or social status, nor does any one know his fortune in the distribution of natural assets and abilities, his intelligence, strength and the like."** (J. Rawls (1971). **A Theory of Justice**. Cambridge, Mass: Harvard University Press, p. 12)

The veil of ignorance channels rational self-interest toward an impartial and fair system of distribution. Without the veil of ignorance, those who are rich would gravitate toward a scheme of distribution that maintained and even enhanced their wealth. Those who were poor would opt for a scheme that redistributed the wealth of others to themselves. The scheme could also be shifted towards one's natural talents: if one were strong, one would choose a system of distribution biased toward strength; if one were intelligent, one would choose a system of distribution that rewarded intelligence; if one were male, one would choose a system that favored men. Rational self interest without the veil of ignorance would bias the principles of justice chosen. But the veil of ignorance pushes rational self-interest toward impartiality because the rationally self-interested individual must choose to protect all possibilities, not knowing in advance which one will apply.

With this in mind, Rawls' basic position can be summarized in the following manner:

1. Rational Self-Interest + Veil of Ignorance = Theory of Distributive Justice.

Distributive Justice, in turn, is captured by two principles: the Equal Liberties Principle (ELP) and the Difference Principle (DP)

1. ELP = Equal Liberties Principle: *"First: each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others."* *"The basic liberties of citizens are, roughly speaking, political liberty (the right to vote and to be eligible for public office), together with freedom of speech and assembly; liberty of conscience and freedom of thought; freedom of the person along with the right to hold (personal) property; and freedom from arbitrary arrest and seizure as defined by the concept of the rule of law."* (Rawls, A Theory of Justice, pp. 60-61)
2. DP = Difference Principle: *"Second: social and economic inequalities are to be arranged so that they are both (a) reasonably expected to be to everyone's advantage [most especially to those most disadvantaged] and, (b) attached to positions and offices open to all..."* (Rawls, A Theory of Justice, pp. 60-61) One further point on the difference principle requires emphasis: *"social and economic inequalities, for example inequalities of wealth and authority, are just only if they result in compensating benefits for everyone, and in particular for the ;least advantaged members of society."* (Rawls, A Theory of Justice, 14-15.)

The Equal Liberties Principle has priority over the Difference Principle so that equality becomes the default pattern of distribution; any departure from an equal pattern of distribution must have a strong, overriding justification. Moreover, the equal distribution of political liberties is, for Rawls, absolute and cannot be overridden. (Rawls, thus, overcomes what he sees as a weakness of utilitarianism that allows the overriding of basic rights and liberties to bring about the greatest good for the greatest number.) But, under the Difference Principle, a departure from equality can be justified in the economic sphere if all stand to benefit, most especially the disadvantaged. In this way, Rawls works toward a synthesis that captures the strengths of three patterns of distribution: equality, merit, and need.

Rawls' theory of justice has been intensely debated and scrutinized. From the libertarian standpoint, Nozick criticizes Rawls for developing a system of justice that sacrifices liberty for equality. Nozick argues that a patterned system of justice (like Rawls') must continually interfere with a distribution voluntarily reached to maintain a privileged pattern of distribution. (To put it crudely, Nozick argues that Rawls' system of justice would require continual transfer of wealth and goods from those who have more to those who have less. One such mode of transfer is, of course, taxation. So Nozick points out that under Rawls' system we would pay loads of taxes.)

Nozick provides an interesting example of how patterned systems of distribution interfere with liberty. Suppose we voluntarily transfer our money to Michael Jordan to see him play. We enjoy the show but now Jordan has a disproportionate share of the total wealth, as judged by our ideal pattern of distribution, namely, equality. So to restore justice, we take back some of Jordan's money—through taxation—and redistribute it to those who gave it to him in the first place. Overriding the initial, voluntary transfer by a second involuntary transfer doesn't make sense to Nozick. Moreover, he finds it wrong because it sacrifices liberty to equality (or some other privileged pattern of distribution). For Nozick, the current pattern of distribution



is not important. What matters is how it came to be. If the current pattern was produced by a just process, then it is a just distribution no matter how unequal it may be. Nozick defines this just process as repeated applications of justice in acquisition (we made it or added value to it) and justice in transfer (somebody bought it from us or received it as a gift without force or fraud). (This analysis loosely follows R. Nozick. (1974) **Anarchy, State, and Utopia**, New York: Basic Books, pp. 149-154, 156-157, 159-163, 168, 174-5, 178-179, 182.) These selections can be found in Beauchamp and Bowie. (1988). **Ethical Theory and Business, 3rd Ed.** Upper Saddle, NJ: McGraw-Hill, pp. 567-570. The Wilt Chamberlain example has been updated to the Michael Jordan example.)

The table below summarizes much of the discussion in this module to this point. It also refers to some points that are beyond the scope of this module. For example, Sandel provides a communitarian criticism of Rawls. Rawls' self can be detached from its social surroundings and defined in terms of rational self-interest. Sandel argues that justice must confront more robust selves or individuals who are inseparable from their social context. Hence, the social contract itself (or Rawls' original position) must always factor in the projects and social relations that partially constitute who we are. Second, Walzer argues that there are spheres of justice that correspond to different practical areas; each sphere has its own distinct principle or procedure of distribution and these different procedures cannot be reduced to one all-inclusive view. So economic goods can be distributed consequentially but political goods must have some kind of right-based or deontological procedure. Third and finally, Nussbaum and Sen see justice as following from a more robust conception of human dignity that is filled out by substantive freedoms or what they term capabilities. M. Nussbaum. (2006). **Frontiers of Justice: Disability, Nationality, species Membership**. Cambridge, Mass: Belknap Press.

Root meaning	Key Features	Kinds and Senses	Useful Frameworks	Cases
Giving each what is due—places justice under the debits/credit metaphor	<p>Pattern Approaches: Justice = the conformity of current distribution to an ideal pattern</p> <ul style="list-style-type: none"> <li>• <b>Equality</b> or equal shares of benefits and burdens</li> <li>• <b>Merit</b> or the most to those who merit or deserve it</li> <li>• <b>Need</b> or the most to those who have the greatest needs</li> </ul>	<p><b>Distributive:</b> dividing burdens and benefits of social cooperation fairly.  <b>Retributive:</b> fair and impartial administration of rewards and punishments</p>	<p>Social Contract Version One</p> <ul style="list-style-type: none"> <li>• Agents pursuing self-interest</li> <li>• Negotiating out of condition of equality in SN</li> <li>• Agreement reached among parties exchanging liberties to secure rights represents a just procedure</li> </ul>	<p>Hughes</p> <ul style="list-style-type: none"> <li>• Does civil law provide victims of wrongful dismissal with adequate means of redress?</li> </ul>
<p>Justice as fairness and justice as equality</p> <ul style="list-style-type: none"> <li>• First emphasizes impartiality</li> <li>• Second emphasizes equality</li> </ul>	<p><b>Historical Process View:</b> if the current distribution results from a process free of coercion and deception, then it is just.</p> <ul style="list-style-type: none"> <li>• <b>Justice as Entitlement</b> results from repeated applications of ...</li> <li>• <b>Justice in acquisition</b> (mixing one's labor with an object)</li> <li>• and <b>Justice in transfer</b> (voluntary exchange of goods between individuals)</li> </ul> <p>Available for free on Connexions &lt;<a href="http://cnx.org/content/col11447/1.9">http://cnx.org/content/col11447/1.9</a>&gt;</p> <p>Michael Jordan</p>	<p><b>Compensatory:</b> fair compensation for wrongful injuries  <b>Administrative:</b> Impartial and fair administration of rules and procedures (consistent with due process)</p>	<p>Rawls Version: Social Contract under veil of ignorance  Rational Self-Interest (maximize primary goods) + Veil of Ignorance (Ignorance of natural talents, gender, social class, economic and political status, etc.) = Procedural Justice as spelled out in two principles:  1. <i>Equal Liberties Principle</i>: "Each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others."  2. <i>Difference Principle</i>: "social and economic inequalities...are just only if they result in greater benefits to the least advantaged members of society."</p>	<p>Incident at Morales</p> <ul style="list-style-type: none"> <li>• Do maquiladores represent a fair distribution of economic goods and risks? Consider especially, lower wages and lower environmental, and safety standards</li> </ul> <p>Intuition Pump</p> <ul style="list-style-type: none"> <li>• 3 students can help you move: one is needy, another skilled, and the three are available (share wages?)</li> </ul>

<p>Metaphor: Justice emerges out of a social contract</p> <ul style="list-style-type: none"> <li>• agents with rational self-interest (utility maximizers)</li> <li>• mutually beneficial exchange or <i>quid pro quo</i></li> <li>• knowledge and comprehension of terms of <i>quid pro quo</i></li> <li>• Voluntary (Free and informed Consent)</li> </ul>	<p>In general processes of acquisition and transfer must be liberty-preserving or free from coercion and deception</p>	<p>Justice can be treated as a <b>right</b> essential to autonomy, vulnerable to a standard threat and feasible in that it does not deprive the correlative duty-holder of anything essential</p> <p><b>Utilitarianism:</b> Justice is intrinsically valuable but only as a part of happiness (especially happiness of the greatest number)</p>	<p>These two principles allow for maximizing primary goods (=rational self-interest) under a veil of ignorance according to Rawls</p> <p>Primary Goods:</p> <ul style="list-style-type: none"> <li>• rights and liberties</li> <li>• opportunities and powers</li> <li>• income and wealth</li> </ul>	<p>CEO Pay</p> <ul style="list-style-type: none"> <li>• Justifiable under historical process view?</li> <li>• Justifiable under need, equality, or merit patterns?</li> </ul>
continued on next page				

Justice has been characterized in different ways as a ... <ul style="list-style-type: none"> <li>• right essential to autonomy</li> <li>• good essential to human happiness</li> <li>• virtue or disposition of character of human agent</li> </ul>		<b>Spheres of Justice</b> (Walzer): There are several distinct spheres of practical activity, each with its own rule of distributive justice. (Examples: Educational, Political, Economic)		One Laptop Per Child <ul style="list-style-type: none"> <li>• Do XO laptops provide the means to reduce the digital divide between developed and developing nations?</li> </ul>
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Table 7.1

### 7.1.4 Exercise A

#### Introduction

As you have seen in the material above, justice can be at least partially derived from an imagined social contract where rationally self-interested individuals negotiate how society should distribute access to primary goods such as (1) liberties and rights, (2) opportunities and powers, and (3) wages and wealth. Social contract theory thus devises a negotiation whose end result generates principles and procedures of distributive justice. In this activities section, you will carry out two different versions of the social contract, one without what Rawls terms a veil of ignorance and the other under the veil of ignorance.

First, you will participate in a natural lottery. From a hat (or box) you will draw one of the following:

#### The Natural Lottery

- You (or your group) has been born as a woman
- You (or your group) has been born as Michael Jordan. (You have talents that would make you an excellent basketball player if these are properly developed.
- You (or your group) has been born as Albert Hirschmann, a German of Jewish dissent who comes of age in the 1930s in Nazi Germany. You have extraordinary mental talents and have a good preliminary education but are now living in a world where people of your descent are the objects of persecution.
- You (or your group) has been born as a graduate from the Harvard MBA program.
- You (or your group) has been born in a nation that occupies what is now called the "Global South." (Haiti would be a good example.)
- You (or your group) has been born as a Black man who has always lived in Detroit, MI.

#### Some key assumptions to guide you all through the negotiation process.

- Your group has interests that need to be protected in this process. You can try to integrate interests, compromise interests, or tradeoff interests with one another.
- You and the other parties to the contract are rationally self-interested. As such you are interested in maximizing access to Primary Goods such as rights and liberties, opportunities and powers, income and wealth.

- You are willing to accept constraints to your primary goods but only if other groups also do so. In other words, you should not unilaterally give up your group's access to any primary goods since these compose rational-self interest and are also essential to survival.
- This contract is supposedly neutral as to different conceptions of the self, for example, whether the self is essentially or non-essentially related to any community. But it tends in the direction of what MacPherson terms "possessive individualism." In this case, there is a human nature that is prior to an independent of any relation to other individuals or to a community. Hobbes reduces this human nature to acquisitiveness or unlimited desire. Locke and Rousseau see a "fellow feeling" as balancing or checking acquisitive desire.

### **Negotiate a new social contract with the other groups.**

Negotiate a contract whose structure represents the best procedure for distributing goods, risks, and harms among the different stakeholders listed in one. Be prepared to defend your contract against claims that it privileges one of these groups over another.

#### **Begin by answering the following questions:**

1. What are your group's interests, needs, or desires?
2. Does your group have its fair share of primary goods: (1) Liberties and Rights, (2) Opportunities and Powers, (3) wealth and income
3. Are your interests/access to goods being met under the current system of distribution?
4. If not describe/prescribe a redistribution process to give your group what is "its due."

### **7.1.5 Exercise B**

1. Now, renegotiate this contract under a veil of ignorance. The same classes will emerge in the system of justice you are creating by your contracting: Political leaders (legislators, judges, mayors, etc); Wealthy Individuals; Individuals with High Intelligence; Individuals with Low Intelligence; Poor); Members of Minority Groups; Women; Men. Only now, your task will be to negotiate a procedure of distribution under a veil of ignorance. You will enter into this system and come to occupy one of these roles, but at this point of negotiation, you do not know which of these roles.

2. As in Exercise A, you are negotiating on the basis of Hume's circumstances of justice:

- Each group has interests that need to be protected in this process. Different group interests can be reconciled through compromise, integration, or tradeoff.
- You and everyone else are rationally self-interested. As such you are interested in maximizing for your group Primary Goods such as rights and liberties, opportunities and powers, income and wealth.
- All negotiating parties are equal. But the roles bracketed by the veil of ignorance are not equal. How would you take this into account in the negotiation?
- Obviously your position will be constrained by the other parties in the negotiation. But, because of the veil of ignorance, you don't know how that constraint will take place. What kind of negotiation stance can you take under the veil of ignorance? Again, remember that you want to maximize your acquisition of primary goods (rights and liberties, powers and opportunities, wealth and income). But this maximization cannot be brought about by privileging any of the roles mentioned above. You may be rich but you may be poor; you may be smart but you may be not so smart; you may be a man but you may be a woman. How do you insure maximize access to primary goods under these conditions?
- This contract is supposedly neutral as to different conceptions of the self, for example, whether the self is essentially or non-essentially related to any community. But it tends in the direction of what MacPherson terms "possessive individualism." In this case, there is a human nature that is prior to an independent of any relation to other individuals or to a community. Hobbes reduces this human nature to acquisitiveness or unlimited desire. Locke and Rousseau see a "fellow feeling" as balancing or checking acquisitive desire.

3. Negotiate a new procedure for distributing primary goods, risks, and harms under this veil of ignorance. Describe in detail your procedures.

### 7.1.6 Exercise C

1. Compare the procedure you developed in Exercise A with the pattern based approach of Rawls. Did you come up with something like the Equal Liberties Principle and the Difference Principle? Compare your procedure with Nozick's Historical Process procedure. Which comes closest to the Hobbesian conception of distributive justice?

2. Compare the procedure you developed in Exercise B with the pattern based approach of Rawls. Did you come up with something like the Equal Liberties Principle and the Difference Principle? Compare your procedure with Nozick's Historical Process procedure. Is this process compatible with a negotiation under the veil of ignorance? Finally which theory seems most compatible with your negotiation in Exercise B, the pattern based approach or the historical process approach?

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## 7.2 Value Profile: Responsibility<sup>2</sup>

### 7.2.1 Introduction: The Root Meaning of Responsibility

The College of Business Administration at the University of Puerto Rico at Mayaguez has recently adopted a Statement of Values. Rather than allowing this document to become static, this community is committed to challenging the Statement of Values. The first challenge, brought about by students, was to translate the Statement of Values into Spanish. (The original was drafted in English in order to be integrated into Business Administration's efforts at AACSB accreditation.) This module forms part of a series of modules

<sup>2</sup>This content is available online at <<http://cnx.org/content/m44683/1.2/>>.

that profile in detail each of the constituent values of Business Administration's Statement of Values: justice, responsibility, respect, trust, and integrity. Its purpose is to provide the basis for a conceptual challenge to the Statement of Values. Different constituents or stakeholders of Business Administration, students and staff, have expressed interest in more sharply distinguishing key values (e.g. trust and responsibility) and in exploring the overlap and distinctions between values (e.g., integrity and responsibility). This module profiles responsibility. Others will profile the remaining values, justice, respect, trust, and integrity. Finally, an introductory module will introduce students to value-based decision making while a concluding module will present a value realization framework taken from software engineering. This module profiles responsibility by providing its root metaphor, key features, kinds and senses, and useful frameworks. It concludes with exercises designed to help students understand responsibility's root metaphor, response to relevance, and how it has been metaphorically projected onto increasingly "higher" moral spaces, moving from the negative to the positive, the minimal to the exemplary, and the reactive to the prospective.

### **Root Meaning: Response to Relevance**

Herbert Fingarette's formula, **"responsiveness to essential relevance"** pulls together two strains used to test for criminal insanity, the cognitive test which lies in the ability to appreciate the moral quality of one's actions and the volitional test which lies in the ability to act on one's perception of moral relevance. This module converts the test for legal competence, "responsiveness to essential relevance," into a the root metaphor for moral responsibility, namely, "(moral) responsiveness to essential (moral) relevance." Moral responsibility brings together two skills. First, the responsible agent has the ability to zero in on the morally relevant aspects of a situation. This comes from cultivated emotional and perceptual sensitivities. (You are sitting on a crowded bus and begin to feel empathically the uncomfortableness of the elderly lady standing in the center.) Second, while keeping the morally relevant aspects in focus, the responsible agent is able to design and execute a morally responsive action that answers to the moral relevance in a situation. (You rise from your seat in the bus and offer it to the elderly lady.) This volitional ability requires cultivating powers of control, skill and knowledge. **The root meaning of responsibility is, thus, (moral) responsiveness to essential (moral) relevance.** See Fingarette, *The Meaning of Criminal Insanity*, 186-7.

### **Metaphorical Structure**

Responsibility is metaphorically structured. Metaphor, for Johnson and Lakoff, is more than just a figure of speech. It is a projection of meaning and structure from one domain, a familiar experience termed the **source domain**, onto another less familiar domain termed the **target domain**. Seeing the unfamiliar in terms of the familiar or extending existing meaning and experience to cover new regions, represents, for Johnson and Lakoff, a fundamental imaginative activity. So, our experience of physical forces and their interactions is encapsulated into the image schema, stimulus-response. Then this basic structure is projected onto the moral domain: stimulus-response becomes perception of relevance-response to relevance. This projection doesn't merely repeat the original experience; it does not reduce the moral to the physical. Stimulus-response is expanded by the insertion of moral content. Stimulus becomes sensitivity to what is morally salient in a situation; we use perceptual and emotional sensitivities and skills to zero in on the moral aspects of a complex situation. Response, when projected onto the moral domain, is no longer unthinking, automatic; now it becomes the formulation of action that is calibrated to moral salience. This metaphorical structure of responsibility is subject to further elaborations. As you will see in the exercises below, responsibility begins as a punitive response to failure to achieve the minimally moral. We blame an engineer for an accident when it results from her failure to exercise even minimal due care in the design and testing of a product. But, through repeated metaphorical projections, moral responsibility is repeatedly elaborated onto higher and higher moral spaces as the pursuit of excellence, not just the avoidance of blame. In short, the metaphorical elaboration of the root meaning of responsibility allows us to see continuity between its negative, reactive, and blame-center forms and more advanced positive, proactive, and supererogatory praise-worthy forms. Just below is a slide that taken from a presentation given by the author on "Teaching Moral Responsibility" at the annual meeting of the Association of Practical and Professional Ethics, March 2012; it shows the elaboration of moral responsibility through the repeated projections of the image schema stimulus-response or the experience of physical force and its interactions. (This account of responsibility as a metaphor is taken from Mark Johnson, *The Body in the Mind*, p. 14. See other Johnson references listed below.)

Image schema: *Physical stimulus “evokes” a reflex response*

(Built upon Johnson, BIM)

Metaphor: Image schema (= **source domain**) is projected onto the abstract moral realm (= **target domain**)



**Source domain** (physical force and interactions) has “internal structures that give rise to constrained inferences” in **target domain** (abstract moral realm) (Johnson, MB, 144)

### 7.2.2 Positive and Negative Senses of Responsibility

#### Negative Responsibility

The negative sense focuses on assigning blame for the untoward. (Untoward means something negative like harmful or unduly risky, etc.) This sense of responsibility works, primarily, from the threshold of the morally minimum. If you are below this threshold, several things happen: you are subjective to reactive attitudes (resentment, indignation, guilt), blame or approbation, and punishment. It is this sense that Bradley had in mind when he asserted that “responsibility is necessarily connected to punishment.” In this domain, the goal is to stay out of trouble which is the same as staying above the minimally moral. Good enough to stay out of trouble but not really good. (Hobbes, in Calvin and Hobbes, tells Santa Clause that he has not committed any murders or robbed any banks this year. Hobbes tells him that this might not be enough; not doing wrong does not fully constitute doing good.)

#### Positive Responsibility

Positive/proactive responsibility focuses on preventing harm and striving for supererogatory value-realization. You are working on an assembly line and see your coworker unconsciously taking a risk that could, under the right configuration of events, cause an accident. You make him aware of this risky habit and work with him to change it all the while taking care not to blame him or attribute it to him as a fault. Your coworker could, and at least initially probably will say, that it is none of your business. But you make it clear that you are doing this because you are concerned and want to work with him to avoid an injury. More and more, companies are working to take injury prevention out of the negative and punitive stance and make it part of an approach that emphasizes non-fault prevention. But even more than prevention, positive responsibility can lie in the pursuit of the supererogatory. Here one takes responsibility even if prior to the act of commitment, it was not not obligatory. One delivers an unexpected good work or even offers a sacrifice



of an important interest in the pursuit of an excellence. Positive responsibility sets behind itself issues of punishment and blame and recasts itself as the pursuit of excellence. In its most positive sense, responsibly becomes a virtue. (Pritchard, Harris, and Rabins discuss positive senses of responsibility in **Engineering Ethics: Concepts and Cases** 99-116. 2nd Edition. See also William F. May, "Professional Virtue and Self-Regulation," in *ethical Issues in Professional Life*, Oxford University Press, 1988. Finally see John Ladd "Bhopal: An Essay on Moral Responsibility and Civic Virtue" in **Journal of Social Philosophy** Vol. 22(1):73-91.)

### 7.2.3 Moral Responsibility and the Law

Moral responsibility cannot be reduced to legal responsibility. Yet, as Fingarette's investigation of criminal insanity shows, the two overlap and frequently compliment one another. Here it is absolutely essential to emphasize one fundamental difference. Legal responsibility focuses on the boundary between what is above the threshold of the minimally moral and what falls below. Moral responsibility begins with this minimal threshold or boundary but then proceeds to outline higher regions of what can be termed exemplary or supererogatory space. Another way of putting this is to hold that while moral responsibility can reflect legal responsibility by laying out the gateway between the blameworthy and the acceptable, it can also be formulated as a virtue or an excellence. Legal responsibility remains necessarily connected with blame and punishment. Moral responsibility at some point leaves these behind as it becomes associated with different morally reactive attitudes such as gratitude, admiration, and pride.

#### Responsibility under Civil Law

- A Tort is a wrongful injury. To prevail in a tort one must prove negligence, recklessness, or intent.
- Negligence emerges out of the background of the normal or reasonable where due care is exercised. In other words, it arises from the failure to exercise due care.
- Recklessness goes a step further. One consciously risks a harm but does so in pursuit of another intention or goal. So you may drive recklessly through the university but justify—in your own mind—this risk incurred on others because you are late to your job interview.
- Intent is the worst of all three. Here the harm in question forms a central part of the agent's intention. The employee fired from his job intentionally introduces a virus into the workplace computer network shutting it down and producing financial loss. Injury intentionally brought about not only triggers compensation to make the victim whole; it may also trigger punitive damages, an invasion of civil law by criminal law.

An interesting debate has developed in the field of engineering ethics about standards of due care. Larry May sets forth a standard of minimal care which is a threshold below which an engineer cannot fall without incurring negligence. While the law is adept at establishing a minimal level of acceptable care, engineers as professionals should be held to higher standards. Hence, Harris, Pritchard, and Rabins in an influential textbook on engineering ethics, *Engineering Ethics: Concepts and Cases*, argue for higher standards of care such as normal or reasonable care, good works, and exemplary care. Engineers should be encouraged to explore higher levels of care and responsibility; but this is held back by the specter of blame. It is certainly appropriate to hold engineers responsible and blameworthy for failure to live up to minimum standards of care and practice. But above this level, when should blame drop out. Certainly engineers who fall below reasonable or normal standards exhibit moral deficiency. (The term comes from Ladd.) But what about taking on tasks that are above and beyond the call of duty? Suppose an engineer elects not to bring about a good work or make a substantial self-sacrifice to obtain a community good. Certainly such an action cannot be blameworthy since it falls well above the minimum threshold of acceptable practice. Nor does it seem to admit of moral deficiency. Hence, as responsibility is projected into increasingly positive and supererogatory space, what terms should we employ to replace blame, punishment, and moral deficiency? See Martin Curd and Larry May, "Professional Responsibility for Harmful Actions" in **Module Series in Applied Ethics**, Center for the Study of Ethics in the Professions, Illinois Institute of Technology Kendall/Hunt, 1984. See also **Engineering Ethics: Concepts and Cases**, Chapter 5.

### Criminal Responsibility

- This area of the law applies to human individuals.
- To prevail in a criminal trial, one must first prove **mens rea** or a guilty mind. This is essentially an intention to break the law, to commit the crime in question.
- It is also necessary to prove that the target of a criminal suit have actually committed the guilty, law-breaking action, termed an **actus reus**.
- Finally, it is necessary to prove that the **mens rea** caused and guided the execution of the **actus reus**

### Back to O.J. Simpson

- Reflecting on the trial of O.J. Simpson can help distinguish burden of proof in a civil and criminal law. Burden of proof is what the plaintiff has to prove to prevail against the accused or defendant. In a criminal trial, the burden of proof is set quite high. (Why do you suppose this would be?) The prosecution has to prove the defendant guilty "beyond a reasonable doubt." It is lower in a civil trial where the plaintiff only has to prove the case against the defendant by establishing a "preponderance of evidence." This is largely quantitative; if 51% of the evidence falls on the side of the plaintiff, then the case against the defendant stands.
- OJ Simpson was found innocent in the criminal trial. The prosecutors were unable to establish his guilt beyond a reasonable doubt.
- But in the civil trial, his accusers were able to accumulate a preponderance of evidence against him. The difference in burden of proof thus explains why Simpson lost the civil trial but won the criminal trial.

## 7.2.4 Corporate Responsibility

While this is not the place to discuss this topic in detail, a few things can be said of corporate responsibility in summary. This notion, to say the least, is controversial. Much of this follows from the characteristics of criminal responsibility. To be criminally responsible, one must have a guilty state of mind (**mens rea**), carry out a guilt or law-breaking act (**actus reus**), and there must be a close connection between the two such that the mens rea guided the actus reus in its design and execution. But to attribute moral responsibility to a corporation would be to anthropomorphize it, to attribute to it a personality that would include mental states and body that existed above and apart from the minds and bodies of its members or employees. One ethicist, John Ladd, warns that this stretches to a breaking point, the thin concept of moral personhood; applying this to corporations empties personhood of its content and renders the concept ineffective. Or as John Danley puts it, there is nothing wrong with the anthropomorphic bias (read focus or meaning) of moral concepts such as responsibility, agency, and personhood. See Manuel Velazquez, "Why Corporations are Not Morally Responsible for Anything They Do," **Business and Professional Ethics Journal**, Vol. 2, No. 3: 1-18.

Nevertheless, there are credible arguments for corporate responsibility based on the premise that attributing responsibility to corporations does not preclude holding human individuals responsible. Peter French argues that under certain conditions, the actions of human individuals can be redescribed as corporation actions. The "device" that "licenses" this redescription is called a Corporate Internal Decision Structure or CIDS. (See French, Collective and Corporate Responsibility. Complete reference below.)

### Constituents of CIDS

- **Corporate goals.** These are either objectives found in the charter or informal ends that can be uncovered by becoming immersed in the day to day operations of a corporation.
- **Corporate decision making and recognition procedures.** These compose the grammar of corporate actions. Included would be procedures for soliciting travel funds, standard operating procedures, hiring and firing practices and other procedures that are followed for routinely corporate acts. These are at the center of attributions of corporate responsibility for these procedures are the ways in which

we can see that an action has been authorized by the organization within which and for which it was performed.

- **Corporate roles.** Was the action performed by an individual designed to carry out a corporate role or was this action performed by the individual in some other capacity?
- **Corporate Organizational or Management Systems.** These systems display the relations of the corporate roles and the individuals occupying them. Usually portrayed by the corporate flow chart, these can display any number of kinds or types but two that come to mind. In hierarchically structured organizations power flows down the chain of command while information flows from the bottom-up; in horizontally organized corporations, power is distributed across relatively autonomous interdisciplinary work teams, each of which is designated responsible for the performance of certain tasks.

### 7.2.5 Kinds of Responsibility

The root metaphor of responsibility is "response to essential relevance" or "response to relevance." But this root metaphor has been used to structure different moral, legal, social, and other practical domains. The result are several different senses of responsibility. This section will help you sort out some of the different senses by providing brief, provisional definitions of causal, capacity, blame, role, and corporate responsibility.

- **Causal Responsibility:** Physical motions or events produce other physical motions or events. The hurricane blew the panel off the roof and caused other damage to the house.
- **Capacity Responsibility:** Conditions for attributing an action to an agent for the purposes of assigning moral praise or blame.
- **Blame Responsibility:** Blaming individuals for their actions, attitudes, or characters that result in untoward or negative consequences
- **Role Responsibility:** To stand committed to realizing the values, goods, or interests around which a social, occupational, or professional role is built or oriented.
- **Corporate Responsibility:** The legal and moral practice of treating corporations as moral agents (not necessarily as persons) and holding them accountable or answerable for their actions. Corporate moral responsibility should not exclude attributing moral responsibility to individuals for their actions. Yet, under special conditions, the actions of individuals can be re-described as corporations or re-description can reveal a corporate dimension or aspect to individual actions.

There are different accounts of types of responsibility in H. L. A. Hart, "Responsibility and Retribution," in *Computers, Ethics and Social Values*, Deborah G. Johnson and Helen Nissenbaum, Eds. Upper Saddle River, NJ: Prentice Hall, 1995, pp. 514-525 as well as K. Baier, "Types of Responsibility," in *The Spectrum of Responsibility*, Peter A. French, Ed. New York: St. Martin's, 1991, pp. 117-122.

### 7.2.6 Useful Responsibility Frameworks

Responsibility has positive and negative senses. In its negative sense, responsibility is the practice of assigning blame and setting the stage for punishment as a means of discouraging modes of action that lead to bad results. But the positive sense—so to speak—pivots off this negative sense and reconstructs the negative and reactive as positive and proactive. (More on this below.) This section presents F.H. Bradley's conditions of imputability, requirements that must be in place in order for us to hold one another responsible for our actions and their results. Combining the perspectives of Bradley and Strawson, we could say that one fits into the **participant attitude** if one satisfies the conditions of imputability, that is, self-sameness, moral sense, and ownership. Failing this, one could still be in the participant perspective but, due to special circumstances, be unable (temporarily) to act responsibly. But Strawson's **objective attitude** is more fundamental and applies to children, the disabled, and the insane. In this case, we are dealing with individuals who are incapable of fulfilling the conditions of imputability, especially self-sameness and moral sense. In this case, the individual falls outside the practice of responsibility, the participant attitude, and into what Strawson terms the objective attitude. We can treat such an individual as "as a possible predictable entity 'to be

managed or handled or cured or trained; and perhaps simply to be avoided.'" (Margaret Urban-Walker in **Moral Repair** quoting—in part—Strawson, "Freedom and Resentment."

### Capacity Responsibility (Conditions for Imputing or Assigning Responsibility)

- **Self-sameness (Identity):** The agent caused the action and the agent's identity persists or continues from the moment of act to the moment of accountability. F.H. Bradley: "I must be throughout one identical person. We do not say, 'He is not the same man that he was,' but always in another sense, to signify that the character or disposition of the person is altered." **Ethical Studies**, 5
- **Moral Sense:** The agent has skills pertinent to honing in on moral relevance and collecting thought, emotion, and will into responsive action. As Bradley puts it, "Responsibility implies a moral agent. No one is accountable, who is not capable of knowing (not, who does not know) the moral quality of his acts. Wherever we can not presume upon a capacity for apprehending (not, an actual apprehension of) moral distinctions, in such cases, for example, as those of young children and some madmen, there is, and there can be, no responsibility because there exists no moral will." **Ethical Studies** 7
- **Ownership:** Minimally, this condition requires the absence of ignorance and compulsion. As Bradley puts it, "it [the act] must have belonged to me—it must have been mine....The deed must issue from my will; in Aristotle's language, the arche must be in myself. ["Arche" is the Greek word for beginning or principle.] Where I am forced, there I do nothing....Not only must the deed be an act, and come from the man without compulsion, but, in the second place, the doer must be supposed intelligent; he must know the particular circumstances of the case;;;If the man is ignorant, and if it was not his duty to know...then the deed is not his act." **Ethical Studies**, 5-6.
- Ignorance and compulsion are not excusable if they result from past, negligent actions. For example, if my failure to find crucial information in the past—"I don't want to know..."—caused my present ignorance it is not excusable. If my past actions and choices got me into the present compelling situation, then I am also responsible.
- Bradley's definition of compulsion is, roughly, the production in an individual of a state of mind or body that is contrary to his or her actual will. Holding a loaded gun to my head and telling me to sign the contract, is compulsion because the fear it produces in my mind leads me to an action that, absent the gun, I would not do. Tripping me produces a state of body-falling—that is contrary to my actual will of standing straight.

### More on Strawson

- **Participant reactive attitudes:** "What I have called the participant reactive attitudes are essentially natural human reactions to the good or ill will or indifferences of others towards us, as displayed in their attitudes and actions" Strawson, "Freedom and Resentment," 10-11. For Strawson, responsibility arises when we hold one another responsible for living up to certain standards and when we respond with "reactive attitudes" when there is a failure to live up to these standards.
- **Objective attitude:** "on the other hand, [the objective attitude] withholds subjecting oneself and others to reactive attitudes. In cases of insanity, childhood, or some other relevant deficiency, the individual does not fit in the network of relations supported by reactive attitudes." "Freedom and Resentment" 18-19.
- **Examples:** Resentment, Indignation, Shame.
- **Positive Correlates:** Gratitude, Admiration, Pride

### Responsibility as a Virtue

Responsibility, when reconstructed in exemplary moral space, becomes a virtue, the pursuit of an excellence. This section pivots from the reactive model set forth by thinkers like Bradley and Strawson to a more prospective model. This positive model that portrays responsibility as a virtue targets three skill sets: Role-taking, transperspectivity, and techno-social sensitivity.

- **Role-Taking:** Projecting into the standpoints of others to assess situations, formulate moral relevance, and outline actions. Requires the ability to explore multiple perspectives (multiple framings) and to move quickly from one to the other.

- **Transperspectivity:** "unravel or trace back the strands by which our constructions weave our world together." Also, the ability to "imagine how the world might be constructed differently." Johnson quotes Winter in Johnson 1993, 241. Steven Winter: "Bull Durham and the Uses of Theory" in *Stanford Law Journal*, 42, 639-693.
- **Techno-social Sensitivity:** From Harris, SEE 2008: "Critical awareness of the way technology affects society and the way social forces, in turn, affect the evolution of technology."

## 7.2.7 Exercises

**Identify the Relevance and Response components of the following cases:**

- The disciplinary tribunal of the Puerto Rico State Society of Land Surveyors and Professional Engineers has a moral tribunal that investigates violations of the society's code of ethics. Individuals brought before the tribunal and found guilty of code violations are subject to temporary or permanent expulsion from membership of this professional society and from the privileges of attendant upon being a licensed professional engineer. Discuss rule compliance from the standpoint of "response to relevance." What is the relevance component? What is the response component?
- The Puerto Rican government held public hearings to review a private company's petition for permission to build a windmill farm on privately owned land located near a publicly owned nature preserve. (Bosque Seco de Guanica) The public hearings were held in a distant place, at an expensive and exclusive facility, and at an inconvenient time for many of those opposed to the project. This activity was not well publicized. What aspects of this situation fall under the umbrella of moral salience or moral relevance? What would be morally appropriate responses available to those opposing the project?
- An engineer passes a laminating press room and notices that a fine white powder covers everything in the room, including the operator. The engineer talks with the operator and finds out that he has been working at this position for ten years. The operator says he is not aware of any evidence that this powder is dangerous or hazardous but has not really looked into the matter. He also appears not to be using any safety equipment to avoid exposure to the white powder. What is the moral salience of this situation? What would be some relevantly moral responses to this salience?
- A family is without electricity in the aftermath of a severe hurricane in a tropical country. Neighbors have generators which they run all day and night to keep their houses air conditioned and their appliances continually running. The family without a generator finds that the noise from their neighbors' generators prevents them from sleeping at night. They finally give up staying in their house and stay in a hotel for the duration of the time it takes to restore their electricity. What is the moral salience of this situation and what are possible responsive actions that the neighbors with generators could take?
- Nathaniel Borenstein is a pacifist. He is also a computer programmer whose skills are in high demand for those developing military technology. But he has a strong commitment not to collaborate with the military or associated industries. So when NATO contacts him to assist them in building a training program for missile launchers, he politely but firmly refuses their overtures. But when he learns that the training program they have developed so far is embedded, he reconsiders his vow of non-participation. An embedded training program could mistakenly inform trainees that the system was in training mode when it was actually in operational mode. What is the moral salience of this situation and what is it about Borenstein that makes him uniquely qualified to attend to this moral salience? What kind of responsive actions are available to Borenstein? Would continuing his policy of non-participation be considered one of these options?

### Responsibility in Dickens' *Bleak House*

*Bleak House* is a novel written by Charles Dickens. In it, Dickens creates characters who embody different models of responsibility. Below are these characters and a brief sketch of their approach to responsibility. Read the sketches below. Then answer the following questions.

#### Character Sketches

- **Esther Summerson:** Esther believes in helping those around her. While she spends almost no time worrying about her own needs, she is entirely focused on those of her surrounding family, guardian, friends, and community. She finds an abstract conception of duty to be both difficult to comprehend and distracting since she is quite busy with helping those in her immediate surroundings.
- **Mrs. Jellyby:** Jellyby is entirely focused on the plight of the natives of the distant country, Borioboola Gha. She works tirelessly writing letters that inform others of their plight. She organizes activities to raise funds to help develop coffee plantations and to provide hungry children with food. While focused on the distant, she is completely unaware of what is going on around her. Her husband has lost his work and is depressed. Her children—we never know how many—run around unsupervised. There are several servants in the household but they drink, argue among one another, and generally do little to carry out their basic duties. When introduced to Jellyby, Esther notes jellyby's peculiar habit of looking through one as if she were focused on the distant plight of those in Borioboola Gha. Dickens calls Jellyby a "telescopic philanthropist."
- **Harold Skimpole:** Harold Skimpole presents himself as a child. His lot in life is to give others pleasure by helping him. As for his own situation, he has a family that he neglect but somehow finds ways of attaching himself to those who supply him with the finer things in life: good food, drink, and fine clothes. He incurs debts which he foists off on other by pleading that he is incapable of understanding figures. He is but a child and all he asks for is to be able to live and to enjoy life.
- **Richard Carstone:** Richard Carstone is a handsome and talented young man. But he has trouble focusing on a career. He engages in studies in medicine and the law but is unable to focus on them and soon abandons them for a career in the military which he also abandons. He is a minor party to a long and complicated lawsuit. He devotes himself to its resolution placing all his hopes and efforts on coming into a substantial inheritance. His guardian, who was initially the source of his trust and love, is later seen by him as an opponent in the lawsuit. He interprets all his guardian's actions as motivated by the desire to win the lawsuit and to claim the money that properly belongs to him (Richard).
- **Mr. Tulkinghorn:** Tulkinghorn is a highly regarded lawyer, a keeper and discoverer of secrets. He has a very British view of society. A person's duty is to stay loyal to the duties of the station in which he or she was born. Those born aristocratic carry out their station of high fashion and the maintenance of large estates while those who are poor are relegated to working in the drastic employments available to their station. His job is to keep people in their stations and to prevent the rise of those who would usurp the stations of those born higher. In this way, he uses the law to maintain the natural order of society.

### Questions:

- Which model of responsibility works best for you, Esther's "circle of duty" model where one starts with one's immediate surroundings or Jellyby's "telescopic" model where one focuses on the distant. Start by considering what would be the strength and weaknesses of each.
- Do you believe Skimpole is sincere in his project of avoiding responsibility. What kind of actions or thinking could Skimpole show that would give the lie to his claim that "I am only a child"?
- Richard places all of his hopes and dreams on the resolution of the lawsuit that encircles all the characters of Bleak House. Do you think this project sustainable? How could such a commitment render one less responsible, that is, less capable of response to relevance?
- Dickens seems to imply by his portrait of Jellyby and Esther that one can either attend to one's immediate surroundings or one can focus, telescopically, on what is distant. Is this "disjunction" necessarily the case? Can you think of anyone who has managed to combine both perspectives? Can you think of anyone else like either Esther or Jellyby? How are they able to balance these poles of responsibility?
- Dickens takes exception to two themes embodied in the lawyer Tulkinghorn. First, Tulkinghorn reduces moral responsibility to legal responsibility? What do you think Dickens finds wrong with this. Second, for Tulkinghorn, the goal of legal responsibility is to maintain social order. Tulkinghorn's conception of social order is, in many respects, Medieval. He finds social order in every person's finding their

station or social position, remaining loyal to that station, and performing its attendant duties. When someone rises above their station, Tulkinghorn feels it his duty to put them back in their place. What do you find wrong with this project? Do you think this problem endemic to responsibility or merely to Tulkinghorn's particular view of responsibility?

## Teaching Responsibility: Pedagogical Strategies or Eliciting a Sense of Moral Responsibility—SEAC 2013

[MEDIA OBJECT]<sup>3</sup>

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<sup>3</sup>This media object is a downloadable file. Please view or download it at  
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## 7.3 Developing Ethics Codes and Statements of Values<sup>4</sup>

### 7.3.1 Module Introduction

Codes of ethics evoke opposite reactions from people who teach, do research in, or are practitioners of occupational and professional ethics. Some hold that teaching codes of ethics is essential to preparing students for their future careers. Corporations, for example, have come to view codes as the cornerstone of a successful compliance program. Professional societies, such as the **Puerto Rico State Society of Professional Engineers and Land Surveyors**, also make the drafting, revising, and disseminating professional codes of ethics a central part of practicing professional engineering ethics. But many strongly oppose codes because they promote the wrong sorts of attitudes in those who would be influenced by them. As you will see below, philosophical ethicists raise objections to codes because they undermine moral autonomy, lead to uncritical acceptance of authority, and replace moral motives with fear of punishment. These polar stances are grounded in the very different perspectives from which different groups approach codes. But they are also grounded in the fact that codes take many different forms and serve distinct functions. For example, consider the introductory considerations presented in the following:

#### 7.3.1.1 Different Uses for Codes

##### Kinds of Codes

- **Professional Codes of Ethics.** Professions such as engineering and accounting have developed codes of ethics. These set forth the ideals of the profession as well as more mundane challenges faced by members. Engineering codes, for example, set forth service to humanity as an ideal of the profession. But they also provide detailed provisions to help members recognize conflicts of interest, issues of collegiality, and confidentiality responsibilities.
- **Corporate Codes of Ethics.** Corporate codes are adopted by many companies to respond better to the Federal Sentencing Guidelines. These codes provide guidelines on particularly sticky issues (When does a gift become a bribe?) They also set forth provisions that express the core values of the corporation. These lengthy codes with detailed provisions support a compliance approach to organizational discipline.
- **Corporate Credos.** Some companies have shortened their lengthy codes into a few general provisions that form a creed. Johnson and Johnson's Credo is famous in this respect and can be found by clicking on the Business Ethics Library link provided above.
- **Statements of Values.** Finally, more mature companies find it useful to express and disseminate their core value commitments in Statements of Values. These form the basis of values-based decision-making. While codes of ethics clearly establish minimum standards of acceptable conduct, Statements of Values outline the aspirations that can drive companies toward continuous improvement.

##### Functions or Purposes Served by Codes

- **Discipline.** This function gets all the attention. Most codes are set forth to establish clearly and forcefully an organization's standards, especially its minimum standards of acceptable conduct. Having established the limits, organizations can then punish those who exceed them.
- **Educate.** This can range from disseminating standards to enlightening members. Company A's employees learned that anything over \$100 was a bribe and should not be accepted. But engineers learn that their fundamental responsibility is to hold paramount public safety, health, and welfare. Codes certainly teach minimum standards of conduct, but they can help a community to articulate and understand their highest shared values and aspirations.
- **Inspire.** Codes can set forth ideals in a way that inspires a community's members to strive for excellence. They can be written to set forth the aspirations and value commitments that express a community's ideals. They can point a community toward moral excellence.

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<sup>4</sup>This content is available online at <<http://cnx.org/content/m14319/1.12/>>.

- **Stimulate Dialogue.** Engineering professional codes of ethics have changed greatly over the last 150 years. This has been brought about by a vigorous internal debate stimulated by these very codes. Members debate controversial claims and work to refine more basic statements. Johnson and Johnson credits their credo for their proactive and successful response to the Tylenol crisis. Regularly, employees "challenge the credo" by bringing up difficult cases and testing how effectively the credo guides decision-making and problem-solving. The CIAPR's Disciplinary Tribunal cases have served as a focus for discussions on how to interpret key provisions of the organization's code of ethics. The NSPE Board of Ethical Review decisions have also provided an excellent forum for clarifying ethical concepts (public safety, conflict of interest) in the context of cases brought to the board by NSPE members. The BER discusses cases in terms of relevant provisions of the NSPE code. Over the years, the NSPE BER has established a firm foundation for the resolution of difficult ethical cases by developing analogies with cases it has already discussed and clarified.
- **Empower and Protect.** Codes empower and protect those who are committed to doing the right thing. If an employer orders an employee to do something that violates that employee's ethical or professional standards, the code provides a basis for saying, "No!". Engineers have refused to carry out directives that place in jeopardy the health and safety of the public based on statements like canon 1 of the CIAPR code. (The NSPE code has similar provisions.) Because codes establish and disseminate moral standards, they can provide the structure to convert personal opinion into reasoned professional judgment. To reiterate, they provide support to those who would do the right thing, even under when there is considerable pressure to do the opposite.
- **Codes capture or express a community's identity.** They provide the occasion to identify, foster commitment, and disseminate the values with which an organization wants to be identified publicly. These values enter into an organization's core beliefs and commitments forming an identity-conferring system. By studying the values embedded in a company's code of ethics, observing the values actually displayed in the company's conduct, and looking for inconsistencies, the observer can gain insight into the core commitments of that company. Codes express values that, in turn, reveal a company's core commitments, or (in the case of a hypocritical organization) those values that have fallen to the wayside as the company has turned to other value pursuits.

### Difficulties with Codes

- The following objections lead philosophers to argue that presenting codes of ethics in ethics classes undermines several key moral attitudes and practices.
- Codes can undermine moral autonomy by habituating us to act from motives like deference to external authority and fear of punishment. We get out of the habit of making decisions for ourselves and fall into the habit of deferring to outside authority.
- Codes often fail to guide us through complex situations. Inevitably, gaps arise between general rules and the specific situations to which they are applied; concrete situations often present new and unexpected challenges that rules, because of their generality, cannot anticipate. Arguing that codes should provide action recipes for all situations neglects the fact that effective moral action requires more than just blind obedience to rules.
- Codes of ethics can encourage a legalistic attitude that turns us away from the pursuit of moral excellence and toward just getting by or staying out of trouble. For example, compliance codes habituate us to striving only to maintain minimum standards of conduct. They fail to motivate and direct action toward aspirations. Relying exclusively on compliance codes conveys the idea that morality is nothing but staying above the moral minimum.

This module is designed to steer you through these complex issues by having you draft a **Statement of Values** for students at your university. As you work through your Statement of Values, you will learn that codes have strengths and weaknesses, serve different functions, and embody values. To get you started in this process, you will study a defective code, the Pirate Credo. A quick glance is all that is needed to see that codes are "all too human" and need to be approached critically. In a second activity you will identify the values embedded in professional, corporate, and academic codes. Working with these values, you will

develop a list upon which your group will build its own Statement of Values in a third activity. Finally, you will construct value profiles that include a general description, sample provisions, value-based challenges, and value principles. These will all contribute to motivating those in your community to commit to and work in concert to realize these values.

### 7.3.2 How an academic community developed a Statement of Values

#### A False Start

The faculty of the Arts and Sciences College of University X decided to form a committee to write a code of ethics. This committee met several times during the course of an academic semester to prepare the first draft. When they finished, they circulated copies throughout the college. Then they held a series of public hearings where interested members of the College could criticize the code draft. These were lightly attended and those attending had only a few suggestions for minor changes. However, when the code was placed before the faculty for approval, considerable opposition emerged. For example, a provision discouraging faculty from gossiping was characterized by opponents as an attempt by a hostile College administration, working through the committee, to eliminate faculty free speech. Several opponents expressed opposition to the very idea of a code of ethics. "Does the administration think that our faculty is so corrupt," they asked, "that the only hope for improvement is to impose upon them a set of rules to be mindlessly followed and ruthlessly enforced?" At the end of this debate, the faculty overwhelmingly rejected the code.

#### Reflections on "A False Start"

- Should codes of ethics be democratically developed from the "bottom up" or should they be authoritatively imposed from the "top down?" Or does this depend on certain characteristics of the community? Maybe corporate managers should have lawyers draft their codes to meet the Federal Sentencing Guidelines; these completed codes should then be implemented throughout the company at all levels. Maybe academic communities should democratically determine their own codes, and if they are unable to do so, then so much the worse for the "very idea" of a code of ethics.
- The **Ethics of Team Work** module presents three ways that lead groups to go off the tracks: Group Polarization, Groupthink, and "Going to Abilene." Do you think that any of these would explain false starts in developing a code of ethics? How can these group pitfalls be overcome?
- Groups are often polarized around different and conflicting ideologies or paradigms. Thomas Kuhn discusses paradigms in the context of scientific debates. When these debates are fueled by conflicting and incompatible paradigms, they can turn acrimonious and prove extraordinarily difficult to resolve. For Kuhn, paradigms articulate and encapsulate different world views; the meanings and experiences shared by one group operating under one paradigm are often not shared by those operating under different paradigms. Members of the Arts and Sciences faculty of University X may have disagreed about the provisions proscribing gossiping because they were operating under different conceptual systems brought about by incommensurable paradigms. If faculty members assumed different meanings for 'gossiping', 'code', and 'discipline', then this would fuel the polarization of non-agreement like that which occurred at University X.
- Cass Sunstein proposes that communities work around ideological or paradigm-driven disputes by developing, in special circumstances, "incompletely theorized agreements." These agreements are brought about by bracketing commitments to a given ideology or paradigm. This allows one side to work on understanding the other instead of marshaling arguments to defend the set of views entailed by its paradigm. So Sunstein's recommendation to the College of Arts and Sciences of University X would be to suspend commitment to defending the core beliefs of the conflicting ideologies and try to hold discussions at a more concrete, incompletely theorized level. This makes finding common ground easier. When shared understandings are forged, then they can serve as bridges to more complex, more completely theorized positions.
- Looking at this problem from a completely different angle, do codes of ethics require a background of trust? If so, how can trust be built up from within highly diverse and highly polarized communities or groups?

- Finally, can codes of ethics be abused by more ruthless groups and individuals? For example, as those in the College of Arts and Sciences claimed, can codes of ethics be used by those in positions of power to strengthen that power and extend control over others?

### A Success Story

- Three years later at the same university, another faculty group set out to construct a code of ethics in order to respond to accreditation requirements. They began with the idea of constructing a stakeholder code.
- First, they identified the stakeholders of the college's activities, that is, groups or individuals who had a vital interest in that community's actions, decisions and policies.
- Second, they identified the goods held by each of these stakeholders which could be vitally impacted by the actions of the college. For example, education represented the key good held by students that could be vitally impacted by the activities and decisions of the College.
- Working from each stakeholder relation and the good that characterized that relation, members of the college began crafting code provisions. Some set forth faculty duties such as keeping regular office hours, grading fairly, and keeping up to date in teaching and research. Others emphasized student duties such as working responsibly and effectively in work teams, adhering to standards of academic honesty, and attending classes regularly.

Because stakeholder codes embody a community's values, the individuals in charge of drafting the code decided that a more direct approach would be to identify the embodied values and refine them into a Statement of Values. This formal statement could later be developed in different directions including a more detailed compliance code.

Turning their efforts toward preparing a Statement of Value Process, the Business Administration community went through the following steps:

1. They discussed a flawed document, the Pirate Credo. This brought about three positive results: participants came to see how codes embody values, that codes serve different functions, and that codes clarify relations between the insiders and outsiders of a community.
2. Participants examined "bona fide" codes of ethics such as academic codes, codes of honor, corporate codes, and professional codes. Since codes embody values, they developed lists of the values these codes embodied.
3. The sample provisions crafted in the earlier stakeholder code effort were presented so that participants could identify the values these embodied. Previous efforts in developing a stakeholder code could be benchmarked against the codes studied in the previous step. Convergences and divergences were noted and used to further characterize the college's community in terms of its similarities and differences with other communities.
4. In this step, faculty members were asked to reduce the values list to a manageable number of five to seven. This led to the most contentious part of the process. Participants disagreed on the conception of value, the meaning of particular values like justice, and on whether rights could be treated as values.
5. To resolve this disagreement, discussion leaders proposed using ballots to allow participants to vote on values. This process was more than a simple up or down vote. Participants also ranked the values under consideration.
6. After the top five values were identified, efforts were made, in describing each of the remaining values, to find places to include at least components of the values left out. For example, while confidentiality was not included in the final value list, it was reintegrated as a component of the more general value of respect. Thus, the final values list could be made more comprehensive and more acceptable to the faculty community by reintegrating some values as parts of other, more general values. Another way of picking up values left behind in the voting process was to combine values that shared significant content. Values that did not make it into the final list were still noted with the provision that they could be integrated into subsequent drafts of the Statement of Values.

7. A committee was formed to take each value through a value template. After describing the value, they formulated a principle summarizing the ethical obligations it entailed, crafted sample provisions applying the value, and posed different challenges the value presented to help guide a process of continuous improvement.
8. The committee presented its results to the faculty who approved this first draft Statement of Values
9. The faculty then developed a schedule whereby the Statement of Values would be revisited, expanded, revised, and improved.

### 7.3.3 Textbox 1: Responding to the Federal Sentencing Guidelines

Recent efforts to develop ethics codes in the academic context for both students and faculty may, in part, stem from the success of ethics compliance programs developed in business and industry in response to the Federal Sentencing Guidelines. Organizational codes of ethics have been integrated alongside other compliance structure and activities to prevent criminal behavior, to detect criminal behavior, and to ensure prompt and effective organizational response once such behavior has been detected.

**The following section contains short excerpts from the Federal Sentencing Guidelines. For more details consult the materials referenced in note 5 below.**

- "The hallmark of an effective program to prevent and detect violations of law is that the organization exercised due diligence in seeking to prevent and detect criminal conduct by its employees and other agents. Due diligence requires at a minimum that the organization must have taken the following types of steps:
- The organization must have established compliance standards and procedures to be followed by its employees and other agents that are reasonably capable of reducing the prospect of criminal conduct.
- Specific individual(s) within high level personnel of the organization must have been assigned overall responsibility to oversee compliance with such standards and procedures.
- The organization must have used due care not to delegate substantial discretionary authority to individuals whom the organization knew, or should have known through the exercise of due diligence, had a propensity to engage in illegal activities.
- The organization must have taken steps to communicate effectively its standards and procedures to all employees and other agents, e.g., by requiring participation in training programs or by disseminating publications that explain in a practical manner what is required.
- The organization must have taken reasonable steps to achieve compliance with its standards, e.g., by utilizing monitoring and auditing systems reasonably designed to detect criminal conduct by its employees and other agents and by having in place and publicizing a reporting system whereby employees and other agents could report criminal conduct by others within the organization without fear of retribution.

### Recommendations by the Federal Sentencing Guidelines for an Effective Compliance Program

- Appointing individuals to serve as ethics or compliance officers
- Developing corporate credos and codes of ethics that effectively communicate an organization's ethical standards and expectations to employees.
- Designing ethics training programs for all employees
- Designing and implementing monitoring and auditing systems
- Designing and implementing an effective system of punishments and sanctions. These must be accompanied by investigative procedures that respect employee due process rights.

### 7.3.4 Textbox 2: Compliance Oriented Codes and Programs Versus Values Oriented Codes and Programs

#### Compliance Strategy

1. The initial and still probably the most prevalent method for responding to the Federal Sentencing Guidelines is the compliance strategy. This strategy is based on three interrelated components:
2. **Rules:** Compliance strategies are centered around strict codes of ethics composed of rules that set forth minimum thresholds of acceptable behavior. The use of rules to structure employee action does run into problems due to the gap between rule and application, the appearance of novel situations, and the impression that it gives to employees that obedience is based on conformity to authority.
3. **Monitoring:** The second component consists of monitoring activities designed to ensure that employees are conforming to rules and to identify instances of non-compliance. Monitoring is certainly effective but it requires that the organization expend time, money, and energy. Monitoring also places stress upon employees in that they are aware of constantly being watched. Those under observation tend either to rebel or to automatically adopt behaviors they believe those doing the monitoring want. This considerably dampens creativity, legitimate criticism, and innovation.
4. **Disciplining Misconduct:** The last key component to a compliance strategy is punishment. Punishment can be effective especially when establishing and enforcing conduct that remains above the criminal level. But reliance on punishment for control tends to impose solidarity on an organization rather than elicit it. Employees conform because they fear sanction. Organizations based on this fear are never really free to pursue excellence.

#### Values Orientation

1. To facilitate comparison, three correlative but different elements to Values-Based or aspirational approaches will be identified.
2. **Development of Shared Values:** Using a process similar to the one described above, a company develops a Statement of Shared Values. These provide guidelines that replace the hard and fast rules of a compliance code. Statements in values-oriented codes play a different logical function than statements in compliance codes. "Principles of Professional/Organizational Conduct" in compliance codes specify circumstances of compliance: time, agent, place, purpose, manner, etc. These provide sufficient content to set forth principles of professional conduct as rules that can be violated. This, in turn, allows them to be backed by punishment for violation. "Ideals of the Profession" (or organization) set forth a community's shared aspirations. These are pitched at a level well above and beyond the minimum. Communities can and should define themselves as much by their aspirations as by their threshold standards.
3. **Support for Employees:** Since Statements of Values set forth excellences or aspirations, the role of the organization changes from monitoring and then punishing misbehavior to finding ways of opening avenues for employees to realize key values in their day to day activity. Excellence is not something to be reached overnight. It requires rethinking basic motivations, attitudes, beliefs, and goals. Companies need to identify obstacles to achieving ideals and then develop support structures to help those who seek to realize ideals. Values-based approaches change from punishing conduct that falls below the minimum to providing collective support to those who strive for the excellent.
4. **Locking in on Continual Improvement:** The philosopher, John Dewey, characterizes moral responsibility as the drive to better ourselves. The particular twist in Dewey's approach is to find ways of folding what has been learned from the past into meeting new challenges that arise in the future. This involves changing habits and, ultimately, changing character. Continual improvement is the ultimate goal of corporations oriented toward excellence. The values these "moral ecologies" identify structure and channel this endeavor. What is needed at this stage is to develop concrete programs and strategies for identifying obstacles to excellence, removing them, and remaining on track for excellence.
5. To summarize, some companies identify a compliance strategy where they set forth rules that establish minimum levels of acceptable conduct, monitor compliance, and punish non-compliance. Oth-

ers, value-oriented or aspiration-oriented companies, identify core values or aspirations (by reflecting on community values and finding them embedded in extant codes of ethics), develop programs and structures to support those who strive for these values, and work to lock in a program of continual improvement or betterment.

6. **Something to think about.** Compliance approaches work best in what of company, organization or moral ecology. (Think about this in terms of the central or core commitments such as those in finance-, customer-, and quality-driven companies.) Values-based approaches work best in what kind of company, organization or moral ecology? How does one transition from compliance to values-based approaches? How does one integrate the two?

### 7.3.5 Exercise 1: Evaluating the Pirate Credo

**Read the Pirate Credo. Then answer the following questions individually**

- What is good about the Pirate Credo?
- What is bad about the Pirate Credo?
- What is the purpose served by the Pirate Credo? For the Pirate Community? For non-members?

### 7.3.6 Exercise 2: Statement of Value Challenge

- Is the SOV comprehensive? (For example, can you think of a case that it does not adequately cover? Are there values that it leaves out in the sense that they cannot be subsumed by one or more SOVs?)
- Are the value descriptions clear? For example, if you have confused values on the multiple choice or matching sections of your exams, is this because the descriptions need reworking and clarifying?
- Last year, an ADEM stakeholder group suggested that values should be paired with one another. For example because integrity is a meta-value it should be paired with other values like trust. Or should trust and responsibility be paired with one another. In this case, should the SOV be expanded to explore the relations between different values?
- When ADEM stakeholders identified their values in 2005, they prioritized and ranked them. Justice was ranked highest followed by responsibility, respect, trust, and integrity. Should this hierarchy or ranking be changed? For example, last year stakeholders suggested that integrity should be ranked first because it is a meta-value that talks about the relation between other values.

### 7.3.7 Exercise 3: Developing Corporate Codes of Ethics

1. Ethics Bowl Corporations. You have been assigned corporations corresponding to two of the six ethics bowl cases. For your presenting corporation, you will be developing a partial code of ethics. For the commenting corporation, you need to familiarize yourself with the moral ecology of the corporation, its needs, and be ready to comment on the code offered by another group.
2. What kind of moral ecology is predominate in your corporation? Is it financial-, customer-, or quality-driven. Look at how the type of moral ecology structures other organizational activities: allocation of praise and blame, exchange of information, treatment of dissenting opinions, and central of moral concerns. All of these issues need to be addressed directly or indirectly in your code.
3. What is the ethical challenge that is highlighted in the ethics bowl scenario based on your case. For this information go to the "Ethics Bowl in the Environment of the Organization" module. m21191.
4. What functions are you addressing in your code outline? Looking above, these would include educate, inspire, create dialogue, discipline, empower, secure and express identity.
5. Develop within the time available a sketch of a code. This could be a section of a compliance code, a corporate credo, or a statement of values. In choosing your form, think carefully about the function(s) of your code. Have something that you can present, informally, for around 3 to 5 minutes.

### 7.3.8 Exercise 4: Evaluating Bona Fide Codes of Ethics

Form small work teams of four to five individuals. Carry out the following four steps and report your results to the rest of the group.

1. **Review** a few sample codes per team.
2. **List** the values you identify in the codes. Express each value as a word or in as few words as possible.
3. **Identify** any recurring values.
4. **Record** and post the list of values.

### 7.3.9 Exercise 5: Do a Statement of Values for Students at Your University

In this third exercise, work with your group to develop a refined list of five to seven values. You can refine your list by integrating or synthesizing values, grouping specific values under more general ones, and integrating values into others as parts. Do your best to make your list comprehensive and representative.

1. **Brainstorm:** list the values for your group. Keep in mind that values are multi-dimensional. For example, in the academic context, the values will break down into dimensions corresponding to stakeholder: faculty, students, administration, and other academic stakeholders.
2. **Refine:** reduce your list to a manageable size (5-7). Do this by rewording, synthesizing, combining, and eliminating.
3. **Post:** share your list with the entire group.
4. **Revise:** make any last minute changes.
5. **Combine:** a moderator will organize the lists into a ballot
6. **Vote:** Each person ranks the top five values

### 7.3.10 Exercise 6—Conveying Our Values: Crafting a Values-Based Code

Each value in your Statement of Values needs to be accompanied by a Value Profile. Give a description of the value in everyday, non-technical terms. Think concretely. For example, those who exemplify your value behave in a certain fashion, exhibit certain commitments, pursue certain projects, and show certain attitudes and emotions. Try to think of general guidelines to keep in mind when working to realize your value. Finally, values challenge us because they portray our aspirations. Think of specific ways values challenge us. For example, students may set for themselves the challenge of working responsibly in teams. They can further spell out what kinds of actions and attitudes this might require. Faculty members might set for themselves the challenge of grading more fairly. This could require actions like developing rubrics and refining exams to make them clearer. The purpose of this fourth exercise is to provide content to your statement of values and begin its implementation in your community. The following steps enumerated below will help.

1. **Value:** Responsibility
2. **Description:** a responsible person is a person who...
3. **Principle:** The faculty, students, and staff of the college of business Administration will...
4. **Commitments:** Keep office hours, do your fair share in work teams, divide work into clear and coordinated tasks, etc.



### 7.3.11 Exercise 7: Creating Awareness of the UPRM College of Business Administration Statement of Values

This exercise provides you an opportunity to study and discuss the UPRM College of Business Administration Statement of Values (available via the PREREQUISITE LINKS). Your task consists of the following tasks:

- Read the entire UPRM CBA Statement of Values (individually)
- Discuss the particular section/value assigned to your group and briefly describe what commitments or challenges does this value present for the students, faculty and/or staff of the CBA
- List the most important commitments or challenges as precise and concise principles

### 7.3.12 Exercise 8: Assessing the UPRM College of Business Administration Statement of Values

This exercise offers four scenarios in academic integrity. Your job is to discuss each scenario in terms of the values listed in the UPRM College of Business Administration Statement of Values (available via the PREREQUISITE LINKS).

**Marta Acevedo, a business administration student, has a report due tomorrow. She has been overwhelmed for the last few weeks with assignments from other classes and doesn't really have time to complete this exercise. She discovers that her roommate took this same class the previous semester and has a complete report on disk. She considers using her roommate's report. Should she? What would you do if you were her?**

- Is Marta threatening any of the values listed in the ADEM SOV? Which ones?
- What can be done prevent this kind of problem from arising in the first place? Should Marta have planned her course load better when registering? Can teachers coordinate to prevent overloading students with the same deadlines? Whose fault is this? The students? The teachers? The system?
- Can this problem be posed as a conflict between ADEM values and other values held by students and teachers? If so, what are values that are in conflict? How can these conflicts be addressed?
- Do you think the ADEM SOV adequately addresses this problem? If not, how can it be improved?

**You are head of your department. A recent study has revealed that plagiarism, which is a university-wide problem, is especially bad in your department. Imagine your relief when a member of your faculty brings you his latest software project, a super-effective and comprehensive anti-plagiarism software program. This program does everything. It detects subtle changes in style in student papers. Its new search engine quickly connects to existing online paper data bases, greatly expanding the ability of a professor to detect the sources from which their students have copied. Furthermore, it allows professors to upload papers and projects from past semesters and provides fast and flexible indexing to help them identify recycled student work. Professors can zero in on students using recycled papers, and the former students who have become their suppliers. Following the recent lead of Ohio State University, you can now revoke the degrees of past students who participate in this version of academic dishonesty. In short, this new and exciting software package allows you to monitor the work of present and past students to a degree thought impossible even in the recent past. "Plagiarism," your colleague tells you, "will now become a thing of the past."**

- Does this anti-plagiarism program threaten any of the values in the ADEM SOV? If so, which values?
- Is the department chairperson treating students disrespectfully by adopting and implementing the anti-plagiarism software? Can faculty treat students disrespectfully as "justifiable" retaliation for student cheating and plagiarizing? Do two wrongs make a right?

- What is the cause of plagiarism? Do students do it out of ignorance of standards and practices of documentation and acknowledgment? Do they do it because they procrastinate until they do not have time to do the assignment properly? Do students resort to plagiarism because they have too many conflicting obligations such as family, job, large course loads, etc.?

**You teach an advanced course in Engineering Economics that has both graduate and undergraduate students. At the end of the semester the students turn in a group project that comprises 40% of their grade. One of the groups complains to you that only 4 out of the 5 members have done any work. The fifth student, the one who allegedly has done no work, is an undergraduate. The others are graduate students. You talk with the undergraduate who claimed that she tried to involve herself in the group activities but was excluded because she was an undergraduate. What should you do?**

- ADEM faculty have identified students not working together effectively in groups as a major concern. Do you find this a problem? What do you think are the causes of students not participating effectively in work groups?
- Assume that the teacher in this case is committed to implementing the ADEM SOV. Which values are at play in this case? Design an action for the teacher that realizes these values?
- Assume you are a member of this student work group. What can groups do to ensure that every member is able to participate fully? What do group members do to exclude individuals from participating?

**You are studying frantically for your exam in a computer engineering course. It will be very difficult. But your roommate, who is also taking the course and has the exam tomorrow, seems unconcerned. When you ask why, he tells you that he has a copy of the exam. Apparently, a group of students in the class found out how to hack into the professor's computer and download the exam. (They installed a Trojan horse called Sub-Seven into the professor's computer which allows unauthorized access; then they searched through the professor's files, found the exam and downloaded it.) Your roommate has the exam in his hand and asks you if you would like to look at it. What should you do?**

- A group of students in a computer ethics class created a survey that asked students if they would avail themselves of exams obtained through means such as that described in the scenario above. Sixty percent of the respondents said that they would. Compare this to the value commitments expressed in the ADEM SOV? Is there a gap between aspiration and behavior? What can be done to reduce this gap?
- Suppose you took the exam. Would this have any long term effects on your character? Would acting dishonestly this time make it easier to do so in the future?
- Suppose you wish to uphold standards of academic integrity in this case and not take the exam. Should you turn your roommate in to the teacher? Would keeping this exam theft a secret undermine any of the UPRM ADEM values? If so, which ones?

You have now discussed some or all of the above cases in terms of the ADEM Statement of Values. What do you think are the strengths of this document? What are its weaknesses? Do you recommend any changes? What are these?

#### **Sources for Cases**

- Case 1 has been developed by William Frey, Chuck Huff, and José Cruz for their book, *Good Computing: A Virtue Approach to Computer Ethics*. This book is currently in draft stage and is under contract with Jones and Bartlett Publishing Company.
- Cases 2 and 3 were developed by UPRM faculty teams from the College of Engineering during workshops held for the ABET 2001 Steering Committee and the Department of Industrial Engineering. These workshops took place April 6, 2001 and May 14, 2001.

- Case 4 has been modified from “The Plagiarism Detector” written by Moshe Kam. It can be found at the beginning of the ethics chapter in Practical Engineering Design, edited by Maja Bystrom and Bruce Eisenstein. Moshe Kam. “The Plagiarism Detector”, in Practical Engineering Design, edited by Maja Bystrom and Bruce Eisenstein. Boca Raton, FLA: CFC Press, 2005: 27-28.

### 7.3.13 Assessment Tools

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#### Ethics Across the Curriculum Matrix

This media object is a downloadable file. Please view or download it at  
<EACMatrix\_Template\_ADEM\_Feb\_17.doc>

**Figure 7.1:** This table will help you document your class discussion of the ADEM Statement of Values.

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#### Muddy Point Exercise

This media object is a downloadable file. Please view or download it at  
<MP.doc>

**Figure 7.2:** Clicking on this media file will open a word format for the Muddiest Point Exercise. Students are invited to discuss the strongest and weakest facets of the ADEM Statement of Values.

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#### Module Assessment Form

This media object is a downloadable file. Please view or download it at  
<MAP.doc>

**Figure 7.3:** Clicking on this media file will open a general module assessment form taken from Michael Davis' IIT EAC workshop. This form will help you assess the SOV activity as well as other EAC modules.

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**This presentation is composed of slides previously given before the AACSB, ADEM faculty at UPRM, and material published by the authors in Technology and Society Magazine. (See bibliography below)**

[MEDIA OBJECT]<sup>5</sup>

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<sup>5</sup>This media object is a downloadable file. Please view or download it at  
<SOV\_Development.pptx>

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2. Gary R. Weaver and Linda Klebe Trevino (1999) "Compliance and Values Oriented Ethics Programs: Influences on Employees' Attitudes and Behavior," in Business Ethics Quarterly 9(2): 315-335
3. Stuart C. Gilman (2003) "Government Ethics: If Only Angels Were to Govern," in Professional Ethics, edited by Neil R. Luebke in Phi Kappa Phi Forum, Spring 2003: 29-33.
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## 7.4 Value Profile: Respect<sup>6</sup>

### 7.4.1 Respect: Recognizing and Honoring Rights

Respect is one of the five values included in the Statement of Values developed by the University of Puerto Rico's College of Business Administration. The following statement of respect was drafted by a committee of academic stakeholders in 2006:

**Acknowledge the inherent dignity present in its diverse constituents by recognizing and respecting their fundamental rights. These include rights to property, privacy, free exchange of ideas, academic freedom, due process, and meaningful participation in decision making and policy formation.**

The purpose of this module is to explore this value further by developing a conception of rights that are treated as modes of respect for human autonomy.

Along these lines, this module will present a framework for explaining and justifying rights and showing the correlativity between rights and duties. This framework is useful to explain and clarify widely accepted rights claims as well as to examine critically less widely accepted, more controversial rights claims. The content of the rights-based approach is summarized below in a table. Different sense of autonomy, loosely interpreted from Ética Para Ingenieros, help to provide a rough justification for the notions of rights. Finally, exercises help students progress from justifying and understanding non-controversial rights claims, to examining more questionable (and complex) rights claims, to examining rights in the context of community development and appropriate technology.

### 7.4.2 Six Statements on Rights

1. **Definition: A right is an essential capacity of action that others are obliged to recognize and respect. (The key word is "essential." Essential here means essential to the development and maintenance of autonomy. For more on autonomy see below.)**
2. **Definition: A duty is a principle that obliges us to recognize and respect the autonomy of others (and of ourselves).**
3. **Correlativity of right and duty. Rights and duties are correlative; for every right there exists a series of duties that spell out how to recognize and respect the corresponding right, who should recognize and respect this right claim, and on what occasions.**

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<sup>6</sup>This content is available online at <<http://cnx.org/content/m46865/1.1/>>.

- Note that duty and right are defined, one in terms of the other. A right is a capacity of action that others are obliged (=have a duty) to recognize and respect. A duty obliges us to recognize and respect the autonomy (=rights) of others.
- For every right, there is a correlativity duty to recognize and respect that right claim. (Actually a whole series or levels of correlative duties).
- Rights (as modes of exercising autonomy) while essential to being human are also fragile, that is, vulnerable to certain kinds of threats. If the capacities or capabilities bundled under a right are not exercised or protected from these standard threats, then they disappear. (For example, humans are capable of speech but only if at certain key developmental times, they are exposed to and stimulated by speech.)

**4. Rights claims have to be justified. A claim is a legitimate right if...**

- It harbors a capability, the exercise of which is essential to autonomy. For example, without general and specific information, one cannot exercise one's agency in an autonomous fashion. Thus informed consent is essential to autonomy.
- It remains vulnerable to a "standard threat." For example, one cannot exercise autonomous agency if one is deceived or if information crucial to responsible, autonomous action is covered over or withheld. Hence, a standard threat to informed consent is presenting false information or covering up true and vital information.
- That the correlative duties it requires to recognize and respect autonomy do not deprive the duty-holders of anything essential. For example, I may have a right to life but that right cannot be extended to the point where I can oblige another to sacrifice her life so that I might live. To assert my right to life at the expense of others is to deprive them of something essential to their autonomy, namely, their life.

**5. For every right there are correlative duties to (a) not violate or deprive another of that right, (b) prevent others from depriving individuals of their rights, and (c) aid those who have been deprived of their rights and thus restoring their dignity and autonomous agency.**

These duties can rest on duty-holders who are individuals or on collectives such as organizations or institutions. For example, individuals have the duty not to deprive others of their privacy by hacking into their email accounts and reading their messages. On the other hand, the institution of civil law provides a means of aiding those who have been deprived of rights like privacy and property. This represents a collective rather than an individual duty-holder.

## 7.4.3 Table on Rights and Duties

## Rights as modes for recognizing and respecting autonomy

Concept	Definition	Elaborations	Examples
<b>Right</b>	An essential capacity of action that others are obliged to recognize and respect.	Framework to justify right claims: (a) <b>Essential</b> to autonomy; (b) <b>Vulnerable</b> to a standard threat; (c) <b>Feasible</b> in that recognizing and respecting right claims does not deprive the duty-holder of something essential.	Some Key Rights in Business: Free and Informed Consent, Due Process, Privacy, Free Speech, Property, and Freedom of Conscience
<b>Duty</b>	A principle that obliges us to recognize and respect the autonomy of others (and of ourselves).	Duty Levels: (a) Not to deprive; (b) Prevent deprivation; (c) Aid the deprived	These two Kantian Principles encapsulate respect for Autonomy: (1) <b>Categorical Imperative</b> : Act only on that maxim that can be made into a universal law; (2) <b>Formula of the End</b> : Treat others always as ends and never merely as means.
<b>Correlativity of rights and duties</b>	The definition of right includes the concept of obligation or duty. The definition of duty is built around recognizing and respecting rights.	Because rights and duties are defined in terms of one another they are correlative; for every right there is a series of correlative duties.	This is a controversial thesis. Nevertheless, the correlativity thesis harbors the truth that rights neither exist nor function in a vacuum. To characterize rights as claims is to imply that they are claims over someone to do something. Especially important is the notion that rights identify capacities of action that are vulnerable to standard threats.
<i>continued on next page</i>			

<b>Rights Justification Framework</b>	To establish a rights claim as legitimate, one must prove that the claim is...	(1) <b>Essential</b> to autonomy; (2) <b>Vulnerable</b> to a "standard threat"; (3) <b>Feasible</b> in that it imposes on the duty-holders an obligation whose execution does not deprive them of something essential.	In relating the right claim to autonomy, remember to connect it to one of the four senses of autonomy discussed below: (1) Self-Choice; (2) Self-Legislation; (3) Authenticity; (4) Self-Decision.
<b>Identifying Correlative Duties</b>	Correlative duties form levels and often proceed from basic individual duties to social or collective duties	(a) Duty <b>not to deprive</b> an individual of a right; (b) Duty to <b>protect others from being deprived</b> of their rights; (c) Duty to <b>aid those who have been deprived</b> of their rights.	<b>The first two correlative duties are generally carried out by individuals:</b> (a) For example, one cannot deprive others of their rights to informed consent by withholding information; (b) If someone else is withholding information and one can prevent deprivation by revealing this information, then one has a duty to do so; (c) But often societies collectively aid those who have been deprived of their rights by creating legal procedures that those suffering rights deprivations can appeal to.

Table 7.2

#### 7.4.4 Four Senses of Autonomy: Self-Choice, Self-Legislation, Authenticity, and Self-Decision

In this module, rights have been explained as capacities of action that are necessary to the exercise of human autonomy. In this section, autonomy will be characterized as self-choice, self-legislation, authenticity, and self-decision following **Ética Para Ingenieros**, 2a Edición, by Galo Bilbao, Javier Fuertes, and José Ma Guilbert, Universidad Jesuistas, 160-164. Bilbao, Fuertes, and Guilbert draw from the writings of Diego Gracia, in **Fundamentos de Bioética**, Eudema, Madrid. What follows draws upon but also takes some liberties with the accounts by Diego Gracia as well as Bilbao, Fuertes, and Guilbert.

**1. The literal meaning of autonomy comes from the Greek words, auto (=self) and nomos (=law).**

Thus, autonomy is literally the ability to give the law to oneself, to legislate for oneself. This presupposes that one can adopt a rational and universal standpoint and design rules or maxims that apply equally to oneself and to all others. I develop rules and guidelines for myself that, at the same time, I can consistently will for all others.

## 2. Autonomy as self-legislation ties in closely with Kant's Categorical Imperative and Formula of the End.

The Categorical Imperative holds that **I can act only on that maxim (=personal or subjective rule) that can be converted into a universal law (=rule that applies to all)**. Cheating for example, fails the CI because its maxim (I can copy from another when I need to) is self-defeating when universalized. (Why?) The Formula of the End states that **I must treat humanity (myself included) always as an end and never merely as a means**. Whenever I lie, deceive, force, manipulate or impose fraud on another to achieve my ends, I seek to circumvent that person's autonomy; I bring her into the scope of certain projects without getting her explicit and full rational consent. (I ask an acquaintance out for a date, not because I value her as a person, but because I want to make my ex-girlfriend jealous.)

## 3. Many say that the ability to exercise autonomy as self-legislation rests upon the ability to take the moral point of view.

Here one takes up the position of the other through a skill moral psychologists call "role-taking." I project into the standpoint of another and view the action I am considering from her perspective. If this action is as acceptable from her perspective as it is from mine, then it is reversible, and thereby recommended.

## 4. Autonomy can also be characterized as the synthesis of freedom from and freedom to.

- **Freedom from** is liberty, the absence of obstacles that stand in the way of what an agent wants to do. Because of this, freedom from is the negative sense of autonomy; it clarifies what opposes autonomy and must be removed to facilitate it. But freedom from does not provide a positive account of what one does after all obstacles to action have been removed.
- **Freedom to** is the positive characterization of autonomy. It spells out what I do when I have achieved freedom from. It requires a conception of the good as well as identity-conferring projects that I work to bring about. It also sets forth side constraints such as Kant's Categorical Imperative and Formula of the End. Thus, I develop life plans whose realization requires access to the means to carry them out. But these plans are pursued within the constraints that Kant sets forth in the Categorical Imperative and Formula of the end; I can solicit the help of others in pursuit of my projects but only if I do so without circumventing their autonomy through deception, force, manipulation, or fraud.
- Isaiah Berlin provides an especially clear and persuasive account of freedom to and freedom from in his article "Two Concepts of Liberty."

## 5. Bilbao, Fuertes, and Guilbert distinguish four senses of autonomy

1. Autonomy as **self-choice (autoelección)**. This sense covers the negative sense of freedom, freedom from obstacles to pursue my preferences and wishes. Mill gives voice to this conception of autonomy in his book, *On Liberty*. (See his classical defense of freedom of speech.) Autonomy in this sense is based on the removal of obstacles that impede my exercise of freedom. Thus, the right to an education is characterized as removing obstacles to my becoming educated; it also gives me access to means of becoming educated. What I learn, the content of my education, is left open to determination by the individual; Mill sets forth an indefinite and wide range of options for exercising "freedom to."
2. **Autonomy as self-legislation (autoleislación)**. As described above this is the Kantian sense in which individuals exercise the capability of giving the law to themselves. This includes a moral aspect or dimension: we discipline our individual lives by developing rules to guide our own lives that can also be extended to all others. We conceive of ourselves and others as living within what Kant terms a "kingdom of ends" where all, because they possess certain human capacities, are entitled to being treated always as ends and never merely as means. This sense of autonomy is the one most explicitly tied to respect.
3. **Autonomy as authenticity (autenticidad)**. This sense of autonomy recognizes the extent to which the individual is influenced by his or her social and natural environment. For example, the philosopher F.H. Bradley carries out a thought experiment based on removing everything English from the English person and asking what is left over after this abstraction. Removing language, cultural norms, experiences generated interacting with others and rendering the individual an isolated social



atom deprives the individual of all determining content. Thus, Bradley terms the remainder an “I know not what” residuum; emptied of all social content, the individual becomes merely an indeterminate placeholder. This sense of autonomy starts from the fact that we are social beings who are shaped (enabled and constrained) by our social and natural context. It then shows how we find ourselves as individuals in this social experience and then act responsively: (a) I can criticize my social being and reject the social forces that work to constrain and channel my actions; or I can accept or acquiesce to these forces and choose to define myself by loyalty to my social context. Either way, I recognize myself in this social space and take responsibility for it by choosing my response. Much of this approach is captured by Existentialism; (b) This can also be understood in terms of moral development. For Kohlberg, the conventional levels of moral development are characterized by individuals making decisions based on what others think or advocate. For example, one conforms to others and bases one’s choices on what is recommended by “authorities”; (c) One reaches post-conventional levels of moral development by questioning authority and other external sources of moral conduct. This is purchased through the achieving of critical distance by exercising the skills of moral imagination like multiple framing of one’s situation or by role-taking to gain insight into the perspective of others.

4. **Autonomy as self-decision (autodesición).** This sense is closely related to the previous sense of authenticity in that it involves recognizing oneself as embedded in a natural and social context, and then taking responsibility for one’s subsequent choices, habits, and character as made within this context. In a manner different from Bilbao, Fuentes, and Guilbert, I will characterize self-decision along the lines of self-realization following Taylor, Aristotle, and Bradley: (a) According to Taylor, one finds oneself in a social and natural situation through “strong evaluation.” Here one questions one’s fundamental commitments (those that constitute one’s identity) in a radical and fundamental way. Taylor characterizes strong evaluation as a **hermeneutical** act where one uses one part of one’s self to attend to and question the other parts. (b) Aristotle also sets forth a self-realization ethics. Virtue (=arête) exercises and realizes those capabilities which are most fully human. By exercising virtue, we realize our natures (and our selves) and become fully happy (=eudaimonia). (I have inserted the Greek words, arête and eudaimonia to show that Aristotle’s concepts are only partially translatable.) (c) Bradley puts this differently. I realize myself by taking up a social station within society and performing its attached duties. Bradley makes use of an organic metaphor to characterize his version of self-realization. By taking up a social station and performing its duties, the individual becomes a functioning organism within society which is now viewed as a social or moral organism. The heart pumps blood throughout the body; by performing its function it also helps the body as organism to stay alive. Individuals by performing the duties of the moral organism help keep this moral order alive and properly functioning. (How do engineers and business persons contribute to the social good?)

#### 7.4.5 Two thought experiments on autonomy

##### Mountain Terrorist

1. The Mountain Terrorist. One is visiting a remote village when, suddenly, it is overrun by terrorists. They line all the inhabitants in the village against a wall with the intention of killing them. When you remonstrate with the terrorists not to do this, they give you a choice: you can, yourself, select a villager and kill him or her with a gun they provide; or you can choose to do nothing in which case they revert to their original plan to kill everybody. Bernard Williams uses this thought experiment to point out the limits of utilitarianism which would dictate that one should kill a villager in order to save the rest. Perhaps this course of action would maximize utility. But how does it stand with one’s sense of self and autonomy? For example, killing an innocent villager might be so disruptive of one’s autonomy that it undermines future agency. It might go against one’s identity-forming commitments or projects. If so, then guilt from killing an innocent person would undermine one’s core beliefs, disrupt self and identity, and render future authentic action difficult if not impossible.

2. George the Chemist must choose between carrying out his responsibilities to his family and remaining true to his pacifism by refusing to work with a company that would use his

**knowledge of chemistry to build war weapons.**

- Are those who insist that George set aside his pacifist beliefs interfering with his autonomy? If so, to which sense of autonomy are you referring? Self-choice, self-legislation, authenticity, or self-decision?
- Many students have characterized George's reluctance to pursue work with the company that manufactures weapons as self-indulgence. They would say that while George's pacifism is important to George's sense of identity, he should be willing to sacrifice this in order to carry out his responsibilities to his wife and children. But if George sets aside fundamental commitments (like his pacifism) can he still remain integral and authentic?

#### 7.4.6 What you are going to do

**Exercise One: Use the frameworks presented in the table above to justify the following rights: informed consent, due process, privacy, property (physical and intellectual), free speech, freedom of conscience. Answer the following questions about each right.**

1. Define or describe the right. Include an example.
2. Provide an argument that the right claim in question is essential to autonomy. That is, what capacity of action is protected by the right claim? How does the exercise of this capacity help an individual formulate and execute life plans that fulfill basic (rational?) desires? Why is the capacity of action essential and not merely trivial? (e.g., I have a right to scratch my nose in public when it itches.)
3. How is the capacity of action that the right protects vulnerable? (Why does it need protecting?) In other words, identify a standard or common threat that undermines an individual's ability to exercise this capacity of action.
4. What are the duties that are correlative to your right? Who are the duty-holders? What must others do to keep from violating your right claim? What kinds of agents are in a position to prevent others from depriving you of your right? What kind of social mechanisms should be created to aid those who have been deprived of their rights?
5. Is the right claim feasible? For example, you may have a right to life. A standard threat to this capacity of action (and being) may be failure in both kidneys. But does your right to life compel another, say a stranger, to donate a kidney to save your life? Does this mode of exercising your right deprive another of something essential?

**Exercise Two: Use the frameworks to examine the following rights claims. Use the steps spelled out in Exercise One. Does the rights claim you are examining satisfy the steps in exercise one?**

- right to a livable environment
- right to have adequate food, clothing, and shelter
- right to an abortion
- right to form unions and the right to strike
- right to have gainful employment (right to a job)
- right to an education
- right to full medical care

**Exercise Three: Martha Nussbaum in *Women and Human Development* portrays “two women trying to flourish.”**

1. Vasanti was compelled to marry at a young age. In her caste, women are generally treated as property; she went from the family in which she was raised to the family of her husband. Like property, her husband was free to dispose of her as he saw fit. He beat her, forced her to work, and took the wages she earned through work and spent them on his leisure and on alcohol. In order to fund his alcohol habit, he had a vasectomy for which he received payment from the government. This ensured that he and Vasanti would not have children, something Vasanti wanted for her emotional fulfillment and economic security.

- Does Vasanti have the right not to be treated as property?
- How would this right be formulated?
- What does it include? (For example, does it include the right not to be beaten or the right to be protected from forced, conjugal sex?)
- What essential capacities of action would this right protect?
- Do women like Vasanti have this right even though they may not be aware of it due to what is termed "preference deformation?"

2. Jayamma carried bricks for a living in order to support her family. Although her work was harder than that performed by men she was paid less than them. When she became too old to continue with this arduous labor, she applied for relief. The Indian government denied her relief because she had sons who were able to support her. Yet her sons, for various reasons, were not willing to support her. Her daughter, who was willing to support her, was a registered nurse. Yet she was not able to practice because she could not pay the money necessary to bribe hospital officials to give her a job.

- Does Jayamma have a right to equal pay (and equal treatment) in her employment? Does this right exist in itself or must it be derived from another, more fundamental right?
- If Jayamma has such a right, how can her society aid her as one who has been deprived of this right?
- Do Jayamma's sons have a duty to support her now that she is too old to work? If so, to what right is this duty correlative?
- Does Jayamma's daughter have a right to work in the profession (nursing) for which she is qualified? If so, what is the standard threat present in this situation that must be addressed to protect her right to work? How are the duties correlative to this right to work to be spelled out and distributed? (What individuals have which level of correlative duty? What organizations exist or could be devised to carry out some or all of the correlative duties?)

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## 7.5 Value Profile: Integrity<sup>7</sup>

### 7.5.1 Introduction

(The Stanford Encyclopedia has an excellent article on integrity by Damian Cox, Marguerite La Caze, and Michael Levine. Visit <http://plato.stanford.edu/>)

Integrity has been identified as a core commitment of the University of Puerto Rico's College of Business Administration. Robert Solomon, a virtue business ethicist, has characterized integrity as a meta-virtue whose function is to unify and integrate all the other virtues. Of course, while it is controversial whether integrity is a virtue, it is clearly a value and of great importance in the College of Business Administration's moral perspective.

The Statement of Values, approved in May 2006 by College of Business Administration stakeholders is described there in the following way:

***Promote integrity as characterized by sincerity, honesty, authenticity, and the pursuit of excellence. Integrity shall permeate and color all its decisions, actions and expressions. It is most clearly exhibited in intellectual and personal honesty in learning, teaching, mentoring and research.***

This characterization has been a source of difficulty for students in Business Administration who frequently confuse it with trust and responsibility. It is also a point of controversy within the College of Business Administration as to whether integrity is a meta or unifying value or whether it is a separate value that stands by itself.

This module will cover integrity by setting forth its different senses or aspects, providing a table that summarizes these different senses, and by offering students a series of exercises that give them an opportunity to reflect on some of the difficulties raised in the literature that discusses this important concept.

### 7.5.2 What you need to know

#### 7.5.2.1 1. Integrity has five different senses

1. **Integrity involves integration that brings about unity or wholeness.** A person of integrity over the long haul works to unify and integrate the constituents of character (its different traits) into a single, coherent identity. Among those constituents are emotion, thought, value, commitments, projects, beliefs, and attitudes
2. **Integrity involves consistency** of action across situations and over long periods of time. (For example, this time span could encompass a entire career or even a lifetime). The Milgram experiments pose a special challenge to this sense of integrity; normally decent individuals act immorally in specially constrained situations under direct pressure. These results are cited to undermine the claim that character traits are robustly trans-situational and that integrity as consistency of action across situations is unfeasible as a moral ideal. But a weaker, more likely conclusion is that consistency of action is possible although difficult; it requires rigorous moral training where students practice and come to dominate strategies for resisting the forces that undermine character expression. The Hitachi Report (ref) provides grounds for developing strategies for designing and maintaining a moral career by setting forth the different organizational environments in which professionals work, how they challenge and constrain moral choice and action, and the different ways in which professionals participate in decision-making. Organizations can be built around different goals depending on whether they are driven by financial, customer, or quality based objectives. Each organizational environment presents different challenges to the professional who would maintain a moral career. Moral education becomes more individualized by helping students to identify the environment in which they will work and then offering strategies and skills particular to each for forging a moral career. Alongside this emphasis on organizational context is a new literature from business ethics devoted to values-based decision-making. For example, Mary Gentile's "Giving Voice to Values: How to Speak Your Mind When You Know What's Right"

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<sup>7</sup>This content is available online at <<http://cnx.org/content/m47211/1.2/>>.

empowers students to stand up for and advocate moral values; it helps them by presenting procedures for resisting pressures toward wrongdoing. Another factor that promotes consistency is moral courage; this virtue empowers one to act consistently across situations even in the face of daunting challenges and formidable pressures to the contrary.

3. **Commitment:** A person of integrity has a self-system built around moral beliefs and values. This moral content represents identity-forming commitments that express themselves through the choices, actions and projects carried out by an individual. Moral psychologist, Augusto Blasi, shows how integrity results from an educative process where an individual successfully integrates moral values and beliefs into the core of his or her “self-system.” Emotions, beliefs, attitudes, etc., provide vehicles for integrating value into the self-system. This process underlies the socialization of students into the non-moral values of a profession through formal and informal education. But Blasi focuses on the integration of moral content into the self-system and how this integration makes moral value a primary motive for action. Having successfully integrated moral value into the central self system, a person of integrity expresses moral value and moral character through his or her choice of action and conduct over a career. In this way, moral action expresses moral character. Conversely, should a moral agent do something wrong, this action goes against character and creates an identity crisis; how does the agent become responsible or own up to action that, because it is immoral, is clearly “out of character?”
4. **A person of integrity is a person of strong and focused conviction.** He or she takes a stand—often a courageous stand—on the side of moral value. This sense of integrity applies especially where moral value is at risk; the person of integrity will stand up to this threat motivated by strong moral commitments, beliefs, and attitudes. This sense is closely related to the commitment sense; a person of integrity has something for which he or she takes a stand and in which he or she strongly believes. The opposite here would be what Martin Benjamin terms the moral chameleon; like a chameleon, this person lacks conviction and changes moral convictions and beliefs to match what dominates the immediate environment. Thus moral chameleon lacks any convictions strong enough to serve as the basis for “taking a stand.”
5. **Incorruptible:** This sense is especially important in Latin American countries like Puerto Rico. Corruption has come to represent the unethical and the anti-ethical taken in the broadest sense. Thus, a person of integrity is the opposite of one who is corrupt; integrity points to the manifestly uncorrupt and incorruptible. Moral integrity here implies that the agent’s self system is solidly integrated around moral value. She is able to resist forces that threaten the unity of the self from both internal and external sources. Internally, one becomes corrupt by abandoning integration around moral value to impulse, desire, inclination, passion, and appetite. External corruption is generated by strong pressures toward wrongdoing that are generated by the organizations within which we work and live. A supervisor orders one to do something illegal or immoral; a peer steals from the organization claiming that everybody does it; organizational roles cover over one’s moral identity and lead one imperceptibly into taking on another persona in which wrongdoing is habitual. One opposes internal corruption by placing moral values in control over impulse, desire, inclination, passion, and appetite. One opposes external corruption by “going to the mat” in defense of moral value; one takes on the role of “giving voice to” moral value and moral considerations in organizational decisions, actions, and policies.

#### 7.5.2.2 2. Integrity can be understood as a virtue

According to Aristotle, a virtue is “**a state of character concerned with choice, lying in a mean, i.e., the mean relative to us, this being determined by a rational principle, and by that principle by which [a person] of practical wisdom would determine it.**” (From Ross’s translation of the *Nicomachean Ethics* in 1106b, 36.) Characterizing integrity as a virtue emphasizes integrity’s role in the choice of action in specific situations and in achieving consistency in choice of action throughout a professional career and even a lifetime. For Aristotle, moral virtue is characterized by a style of choice and career that consistently and even systematically avoids the vices of excess and defect. Integrity’s vice of excess lies in action and habits that tend toward rigidity and inflexibility; here the agent holds to a position no matter

what and does so even in the face of overwhelming evidence to the contrary; such a person falls prey to unreasonableness and irrationality. Integrity's other vice, its vice of defect, emerges when the individual acts as a moral chameleon, a hypocrite, or a wanton. (Martin Benjamin in *Splitting the Difference* vividly describes the hypocrite and moral chameleon; Frankfurt characterizes the moral wanton as the psychotic whose actions are so inconsistent and unconnected that they express no, underlying, unified character.) Alongside these vices of excesses and defect are the vices of internal and external corruption described just above; internal (psychological) and external (organizational) corruption break down the integration of value, habit, emotion, and belief that characterizes the moral agent.

### 7.5.2.3 3. Integrity as a Meta-Virtue, a virtue about the relation between virtues.

Many have characterized **integrity as a special kind of virtue, a meta-virtue**. In this case the subject matter of integrity consists of all the other virtues and how they fit in with one another. A person of integrity finds ways of integrating all the virtues so that she is truthful **and also** courageous, honorable **and also** humble, just **and also** compassionate. While there is nothing in the definition of the individual virtues that leads one to contradict another, in certain situations individual virtues become difficult to integrate. A strong sense of honor may lead one to act or appear arrogant; honor thus takes on the appearance of opposing humility because their integration in this situation is difficult. The fair and impartial judge may appear cold and devoid of compassion when she asserts justice over compassion in her decision. Integrity, because it pertains to all the virtues and to the relation in which they stand to one another, is a **meta-virtue**, one that posits the seamless

### 7.5.2.4 4. Ways for building integrity: strong evaluation and aligning first and second-order desires.

- In Charles Taylor's strong evaluation test, integrity emerges out of an intensive and radical examination of one's core self. This examination evaluates identity-conferring beliefs, emotions, attitudes, and projects in terms of different moral "horizons." Taylor's test is hermeneutical because one can never completely step outside of one's self when carrying out strong evaluation. Instead, one examines one part of the self using other parts that are kept provisionally outside the scope of criticism and examination. Then one reverses the poles of evaluation; what was formerly the target of strong evaluation now becomes the means of carrying out a new evaluation; and what provided the means of strong evaluation now becomes the target of a new evaluation. Because it is hermeneutical, strong evaluation is never complete; one is continually bootstrapping toward a more thoroughly understood and seamlessly integrated self by working toward higher and higher levels of refinement.
- Frankfurt also provides a test for integrity by distinguishing between first and second order desires. At the first level, I may desire to smoke a cigarette; I have been smoking for quite some time and feel a craving for one right now. Second-order desires evaluate first-order desires; I crave a smoke at the first level but now find smoking undesirable at the second level; second-order desires thus take an evaluative stance toward first-level desires. A new, moral goal has emerged that challenges me to reshape my first-order desires. I work to reduce my craving for a cigarette because I now find cigarettes undesirable; they are harmful, expensive, and annoy my friends. I take special measures to reduce my first order craving to align it with my second order project.
- In Taylor's test, integrity emerges from a continual, intensive, and radical evaluation of my self-system in terms of its central, identity-conferring content. In Frankfurt's test, integrity emerges as second-order desire motivates me to realign first-order desire.

### 7.5.2.5 5. Self-Deception, as put forth by Herbert Fingarette, presents an unusually strong challenge to integrity

Fingarette characterizes self-deception as the refusal to avow or acknowledge a part of oneself; one indirectly recognizes this undesirable part of the self but by refusing to "spell it out," one leaves it outside the unity of

the self. Thus, self-deception arises from the failure to integrate all the constituents of the self. Furthermore, self-deception is a form of corruption, what Collingwood characterizes as a “corruption of consciousness.” One attends to one element in the field of consciousness in order not to attend to another, undesirable element. This project of disattention permeates and corrupts what is attended to. The racist projects the undesired characteristics he disavows for himself upon the targeted group. This hatred of others is really a corrupt form of self-hatred, disguised by projecting the rejected parts of the self onto the external target of racist attitudes. The disavowal of self-deception can never be contained; refusing to integrate the disavowed element with the rest of the self leads to an eventual, overall disintegration of the self. For this reason, self-deception presents a singularly strong challenge to integrity.

**Summary Table on Integrity**

<b>Core Meaning or Root Metaphor(1,1)</b>	<b>Description(1,2)</b>	<b>Features(1,3)</b>	<b>Exercises on Integrity(1,4)</b>	<b>Cases(1,5)</b>
Integration,Unity, or Wholeness: a person of integrity unifies character constituents into a single, coherent identity. Components integrated: emotion, thought, values, commitments, projects, beliefs, and attitudes.(2,1)	Integrity functions as a meta-virtue or a meta-value. This means that it prescribes coherence and consistency between the individual virtues of the character or the values that form the core of one's thought and conduct.(2,2)	Vices of excess: (a) rigidity and inflexibility (b) fanaticism or sticking to a position no matter what; (c) unreasonableness; (d)irrationality.(2,3)	Some use Milgram's experiments to argue that situation determines character and action. There are, according to this position, no trans-situational character disposition or traits.(2,4)	<b>Nathaniel Borenstein</b> reformulates and reintegrates his pacifist beliefs (without abandoning them) to help NATO develop a missile launch training program not embedded in the actual launching system.(2,5)
<i>continued on next page</i>				

<p><b>Consistency</b> of action across situations that follows from a fully synthesized and integrated character. The same character trait, disposition, or habit is displayed across different kinds of situations.(3,1)</p>	<p>Integrity is often characterized as a virtue, that is, as an excellence of character, thought, and action. Character is formed around four Cardinal Virtues: Prudence, Justice, Fortitude, and Temperance. (Taken from the Encyclopedia of Catholicism)(3,2)</p>	<p>Vice of Defect: moral chameleon, hypocrite, and wanton. (See Frankfurt and Benjamin on these types of defect.)(3,3)</p>	<p>Some conclude from Zimbardo's prison experiments that identity dissolves into the role one is playing. The students role-playing in his experiment as prisoners and as prison guards become so lost in their roles that they lose their sense of identity.(3,4)</p>	<p><b>Jim and the Jungle:</b> Utilitarianism and Deontology may dictate that one shoot the villager or leave the scene but they do not properly take into account the cost of either action on personal integrity.(3,5)</p>
<p><b>Commitment:</b> a person of integrity has central beliefs and values to which he or she remains faithful. He or she has something to believe in and thus stands out as a "person of conviction." (4,1)</p>	<p>According to Aristotle, a virtue is "a state of character concerned with choice, lying in a mean, i.e., the mean relative to us, this being determined by a rational principle, and by that principle by which [a person] of practical wisdom would determine it." (From Ross's translation of the Nichomachean Ethics in 1106b, 36.)(4,2)</p>	<p><b>Vices of Corruption:</b> External-disintegration of organizational, group, or collective integrity or unity(4,3)</p>	<p><b>Strong Evaluation Test:</b> Is it possible to subject core self to rigorous self-examination? Difficulty: Finding an Archimedean point.(4,4)</p>	<p><b>George the Pacifist:</b> George does not want to work on a weapons project because it violates his strong, core beliefs in pacifism. But he is unemployed and his wife needs to quit her waitress job to go back to school and be with the children.(4,5)</p>
<i>continued on next page</i>				



<b>Incorruptible:</b> The coherence or solidity of one's core self can stand up to disruptive pressures such as extraneous desire or pressure from the outside.(5,1)	As a virtue, integrity is the mean between extremes of excess and defect.(5,2)	<b>Internal Vice of Corruption:</b> Disintegration of individual integrity or unity/cohesion of character(5,3)	<b>Consistency of first with second-order desires:</b> Frankfurt posits the existence of two levels of desire, first/immediate and second/mediate. The gambler gives way to first-order desire to keep on gambling. But second-order desire, opposes the first, and advocates a project to stop gambling. (At which level does the true self arise?) Integrity = aligning first with second order desires.(5,4)	<b>A Man for All Seasons:</b> Play author, Robert Bolt, presents Thomas More as a paradigm of integrity. Susan Wolf, on the other hand, presents him as a religious fanatic. Would More lose his integrity if he signed the oath?(5,5)
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Table 7.3

### 7.5.3 What you are going to do.

#### 7.5.3.1 Exercise I: Does Character Exist?

The following is quoted from Gilbert Harmon's article, "The Nonexistence of Character Traits." Virtue ethicists do not and need not argue that most people are indeed virtuous or could in principle become virtuous' (Athanasoulis, 1999). But if we know that there is no such thing as a character trait and we know that virtue would require having character traits, how can we aim at becoming a virtuous agent? If there are no character traits, there is nothing one can do to acquire character traits that are more like those possessed by a virtuous agent.

**Examine each of the premises set forth in this argument.**

- Is it the case that there is no such thing as a character trait? (For example, do the Milgram experiments show that character traits displayed in one situation disappear when one enters into a different situation? Does the fact that a significant minority of subjects refused to continue in the experiment provide evidence that it is possible to develop robust character traits or is this just a matter of luck?)
- Does virtue ethics rest on the assumption that there are robust, trans-situational character traits? (Do robust character traits have a basis in nature? Can these be developed by, say, practicing to the point of becoming "second nature?")
- In other words, does the inconsistency of action across situations displayed in the Milgram experiments undermine the claim that virtue ethics is possible?

**7.5.3.2 Exercise II: Must George sacrifice his integrity to meet his family's needs?**

George is a chemist. He recently received a Ph.D. in this area and demonstrated considerable skill and knowledge in a highly specialized and sought after area of this discipline. But George is also unemployed. His wife has had to quit school and work as a waitress. They have two children and, even though George shares care-giving and domestic duties with his wife, it would be better if his wife could quit her job, go back to school, and have more time to be with her children. Finally, George is a pacifist. Since his expertise in Chemistry has military applications (specifically in the development of weapons in chemical warfare), it is possible for George to find work but only in positions that go against his pacifist beliefs. George's friend, Antonio, informs him of a job possibility with Mega Weapons, a company whose revenues come primarily from government military defense projects. Antonio can get George an interview with Mega Weapons, and, given the scarcity of people with George's expertise, this interview will probably result in a well-paying job. George however expresses concern with taking on such a job given that it would go against his pacifist beliefs. George is highly committed as a pacifist; these beliefs have been integrated into his core self system.

**Questions**

- Should George set aside his pacifist beliefs in order to carry out his family responsibilities?
- Under what conditions would setting aside his pacifist beliefs undermine George's integrity?
- By sticking to his pacifist beliefs and refusing to pursue this job opportunity, is George falling into the vice of excess, fanaticism and unreasonableness?
- If George sets aside his pacifism and takes a job with Mega Weapons, does he fall into the vice of defect, namely, does he become a hypocrite or a moral chameleon?

**7.5.3.3 Exercise III: Is there such a thing as unity of character and unity of virtue?**

**Codes of ethics in engineering enjoin engineers to associate only with individuals of "good character."**

- Why is this important? For example, if one associated with individuals of bad character, would this corrupt one's own character?
- Take a field from the following list: engineering, business, government, science, agriculture. What would be the attributes or traits that would designate one as having a good character within this field? What kind of things would one do? What kind of person would one be? Do you know of anyone in your field that you would consider a good character? A bad character?
- Imagine an engineer who exhibits the characteristics that you have used to define an engineer of good character. Now imagine that, even though married with children, this individual had an extramarital affair. Would this additional fact diminish your estimation of this individual as one of good character?
- The view that one must have all the virtues to be good is a position called the "unity of the virtues" and it has been attributed to Aristotle. Is this necessarily true? In order to be a good business person, must one also be virtuous in one's family life? Did President Clinton's affair with Monica Lewinski diminish his performance and integrity as president?

**7.5.3.4 Exercise IV: Saints of Selfhood, Persons for all Seasons, and Dirty Hands**

- Robert Bolt's play, *A Man For All Seasons*, portrays Thomas More as a "saint of selfhood." More and several other characters express different modes of selfhood through how they respond to a single, vital political issue of their time.
- Henry VIII took Catherine of Spain as his first wife. To do so he had to receive a special dispensation from the Pope because she was previously married; this previous marriage and the Catholic Church prohibition of remarriage thus created the necessity of receiving special permission from the Catholic hierarchy.

- But after several years of marriage to Henry, Catherine had failed to give birth to a son; Henry became obsessed with the fact that there was still no heir to the throne of England. In the meantime, Henry had fallen in love with Lady Anne Boleyn and wanted to marry her. He felt that Catherine's barrenness was punishment from God for the illegitimacy of the marriage. He was also confident that Anne, who was younger, could bear him a son. Now Henry went to the Pope asking him to "dispense with his dispensation," declare the marriage to Catherine null and void, and give consent to the new marriage to Anne Boleyn. The Pope refused.
- Henry went on with this second marriage in defiance of the Pope. Eventually this led the Church of England to separate itself from the Church of Rome. But Henry's more immediate problem was dealing with opposition to the marriage arising from English citizens faithful to the Catholic Church and Rome. Henry felt that this opposition represented illegitimate interference in the political affairs of England on the part of outsiders. To ferret them out, Henry demanded that all citizens take an oath of loyalty which affirmed the illegality of Henry's marriage to Catherine, the legitimacy of the marriage to Anne Boleyn, and the acceptance the children she bore Henry as the legitimate heirs to the throne of England.
- A series of larger political and religious issues "telescoped" themselves into this familial problem. (1) What is the relation between the Catholic Church and the State of England? (2) How could Henry's successor be determined and legitimized? (3) How could Henry's succession be planned out so as to avoid civil conflict and civil war? (4) How could conscientious citizens of England reconcile their political obligations with their religious faith? All of this entailed that Henry's oath required all of those taking it to choose between Church and State. If one had integrated religious beliefs into one's self-system, then this choice translated into the alternatives of self-affirmation and self-denial.

Your task in this exercise is to explore the different approaches to integrity taken by four characters in Bolt's play: Thomas More, Thomas Cromwell, Richard Rich, and Thomas Howard, the Duke Norfolk. How does each approach this situation? Does the character's approach preserve or betray integrity? Is preserving integrity compatible with compromises like the one suggested by Norfolk: take the oath and publicly affirm the legitimacy of the marriage while internally and privately denying its legitimacy? How does one preserve integrity and avoid betraying or abandoning one's deepest self as outlined by strong religious and political convictions?

### 1. Thomas More

- More refused to take the oath. For him, an oath is an especially strong promise, made before God, in which one offers one's very self as guarantee. Accepting Norfolk's proposal, publicly affirming the marriage while privately and internally repudiating it had very real consequences for More that would result in the loss of self, the betrayal of conscience, and the destruction of his "moral compass." As More put it at one point, abandoning one's conscience for the sake of political expedience was the sure road to political corruption and chaos. While Bolt portrays More as a "saint of selfhood," Susan Wolf (in her historical novel on Cromwell) presents him as a religious fanatic, one who would hold to religious dogma even to the point of civil war and social destruction.
- **Question:** Is More a saint of selfhood or a religious fanatic?

### 2. Richard Rich

- Rich begins as an admirer of More. But he is also ambitious, so when More refused him a political appointment, Rich found a new patron in the Machiavellian politician, Thomas Cromwell. (More did offer Rich a teaching post, but this clearly was not enough to satisfy Rich's political ambitions.) Rich's career advanced nicely through Cromwell's patronage but at a price to personal integrity. To get his first appointment, Cromwell asked Rich to provide incriminating evidence against More. Rich found this betrayal difficult but after pressure from Cromwell, gave in. Cromwell assured him that it will be easier next time. Rich proceeded step-by-step toward the point where he was able to betray More and convict him of treason by perjuring himself as a witness; he falsely testified that More declined to take

the loyalty oath for treasonous reasons. More told Rich that he had lost his soul with this lie but Rich eventually rose to the exalted position of Chancellor of England.

- **Questions:** Did Rich betray More? Did Rich abandon integrity for personal gain? Or were Rich's actions an appropriate political response to More's religious fanaticism?

### 3. Thomas Cromwell

- Thomas Cromwell described himself as a civil servant devoted to the king, whoever he was. Thus his position could be characterized as uncritical loyalty. If the king wished for something, then Cromwell asserted that it was his duty to see to it that he got it. Cromwell's special talent was removing political and bureaucratic obstacles. If his means seemed extreme (he prosecuted More for treason and brought about his execution), Cromwell justified these by the legitimacy of the ends they were meant to bring about. Henry, for Cromwell, was more than just a man; he was the King of England and his desires could be re-described as the collective and common good of the people of England. Cromwell, thus, sided with the political side of the Church vs. State dispute. He saw his actions as the proper political response to More's religious fanaticism.
- **Questions:** Did Cromwell preserve or abandon integrity through his actions? To what extent do legitimate political ends justify taking extreme administrative measures? Is it necessary to "dirty one's hands" in order to realize social and political goods as well as to avoid political disasters like civil war? At one point, More affirmed that he would like to see England's affairs "governed by prayer." Does Cromwell represent the practical antidote to this utopianism?

### 4. Norfolk

- Norfolk belonged to the English aristocracy and his family had its own claim to the English throne. Yet, as Norfolk confessed to More, the aristocracy caved in to Henry on the matter of the marriage in order to protect its own position and secure its important position in the English familial hierarchy. Norfolk conceded that Henry was wrong but that this was irrelevant. Because Henry had the power to do what he wanted, it would be useless for the aristocracy to oppose him. They should wait for Henry to die and then assert themselves in the power struggle that would follow his death. If this resulted in civil war, then so be it. In the meantime, More should join the aristocracy and take the oath for fellowship if for nothing else.
- **Questions:** How does Norfolk's position stand in regard to integrity? Consider the values of the English aristocracy: honor, tradition, courage, and fortitude. Did Norfolk remain true to these aristocratic values? Can these values be temporarily set aside in the face of the superior power of one particular aristocratic family, the Tudors?

Imagine a continuum between integrity, on the one end, and insincerity, corruption, and betrayal on the other. Now arrange these characters on this continuum. Who would you consider a saint of integrity? Who do you feel best falls on the opposite end of the scale? Can you invent any strategies for preserving personal integrity in the face of such a polarized political debate?

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## 7.6 Value Profile: Trust<sup>8</sup>

### 7.6.1 Introduction

Trust is one of five values identified by the College of Business Administration at the University of Puerto Rico at Mayagüez for inclusion in its Statement of Values. These values were identified in a workshop held in 2005. There participants explored values in different codes of ethics, identified the values embodied in the rules they drafted to guide daily conduct, and carried out selection and prioritization activities to refine and reduce a large list of candidate values to five. A committee of stakeholders (administration, faculty, staff, and students) studied the values and wrote out short descriptions of each. Finally, the Statement of Values and its value profiles have been subjected to different challenges. Stakeholders have translated the SOV into Spanish, tested it for comprehensiveness using case studies, and used test results in classes to hone in on conceptual ambiguities. The SOV provides the following formulation of trust:

**Recognize that trust solidifies communities by creating an environment where each can expect ethically justifiable behavior from all others. While trust is tolerant of and even thrives in an environment of diversity, it also must operate within the parameters set by established personal and community standards.**

This conception of trust as the expectation of moral behavior from others comes largely from Robert Solomon. This module will build on Solomon's treatment by integrating it with that of Margaret Urban-Walker in her book, **Moral Repair: Reconstructing Moral Relations after Wrongdoing**. Trust is absolutely essential in constructing moral transactions and building a civilized life. But wrongdoing can disrupt—even destroy—social transactions, leaving civil ruin in its wake. As Urban-Walker explores the different ways to carry out moral repair, the restoration of trust emerges as an essential component. For example, she lists six tasks as constitutive of moral repair. Trust plays an essential role in the following two (MR 28):

- "Moral repair is served by replenishing or creating trust among individuals in recognition of shared moral standards and in their responsiveness to those standards and support of the practices that express and support them."
- "Moral repair is served by igniting or nourishing hope that moral understandings and those who are responsible for supporting them are worthy of trust."

### 7.6.2 Trust as a Concept

Below are five statements about trust that bring out important components about this concept. Moral concepts are not as easily defined or applied as mathematical or even scientific concepts. They are best approached by examples and by moving from clear and indisputable examples to more complex, grey-shaded ones. They are also approached by what Gilbert Ryle used to term conceptual cartography; one understands one concept by drawing out a map that conveys its relations to other, similar concepts. Understanding trust requires exploring its relations to concepts like responsibility and hope. Trust is a kind of sensitivity

<sup>8</sup>This content is available online at <<http://cnx.org/content/m46866/1.1/>>.

or responsiveness that arises in social relations; thus, it is a mode of responsibility. And trust is ignited, sustained, and restored through hope; when disrupted by wrongdoing and betrayal it can be restored by forgiveness. So our accounting of trust will touch on its relations to these related moral concepts.

### **1. Trust is reliance on responsibility**

Trust has a central or core meaning that Urban-Walker characterizes as “reliance on responsibility.” I rely on others to behave responsibly in everyday social interactions; I also understand that they rely on me to behave responsibly. This is close to Solomon’s formulation of trust as the expectation of ethically justifiable conduct from others. But Urban-Walker inserts trust into the everyday moral relations and interconnections created by responsibility. As we will see below, trust is best understood by spelling out the context in which it functions where individuals interacting with one another, stand vulnerable to each other, and rely on one another to carry out the duties and projects of their lives.

### **2. Trust makes us vulnerable and dependent on the good will of others**

Trudy Grover (as summarized by Urban-Walker) identifies several characteristics of operative trust (MR 79): (a) “expectation of benign behavior based on beliefs about a person’s motivation and competence;” (b) “an attribution of general integrity;” (c) “an acceptance of risk and vulnerability;” (d) a “disposition to interpret the trusted person’s actions favorably.” This list conveys the idea that trust makes us vulnerable to the actions of others while it makes them vulnerable to our actions. Trust, others words, arises only when we risk betrayal.

### **3. Trust requires taking up the "participant attitude."**

Trust takes place within what the philosopher Strawson terms the “**participant attitude**” or participant standpoint. This standpoint is accompanied by reactive attitudes; should others fail to do what is expected of them or fall short of commonly accepted moral standards, then we respond with “reactive attitudes” like resentment and indignation. In fact, trust functions through a whole series of responsive emotions such as pride, shame, resentment, indignation, and hope. (MR 79) When we take up the participant standpoint, we become involved in the world and its interrelations and transactions. Opposed to this is what Strawson terms the **objective attitude** where these intentional and self-directed emotions do not apply because the agent, for some reason, fails to become involved in social and moral relations. Part of what it means to be moral is to be subject to these reactive attitudes as well as being able to direct them responsively toward others. Psychosis is defined as being unable to exercise reactive attitudes; one doesn’t feel resentment or indignation or feels them inappropriately. Thus, trust must be understood as functioning within the participatory standpoint, that is, within a network of social and moral interdependencies and transactions.

### **4. There are several factors that motivate or encourage the development of trust.**

- Urban-Walker presents motives that foster and maintain trust. She takes these from Pettit (MR 76-77). Thus, trust is motivated by...
- working to “keep the good opinion that my trust already displays”
- a “concern for reputation”
- “in pursuit of reciprocity”
- “out of fear of penalties for poor performance”
- “out of an impersonal sense of obligation” (76-77)

### **5. Trust, hope, and forgiveness.**

Trust (and restoration of trust) is closely related to other attitudes such as hope and forgiveness. Hope (its futurity, desirability, possibility, and dynamic tendencies) opens one to responsive action in the future. Hope maintains trust and can even restore it when wrongdoing has undermined its proper functioning.

### **6. Ways of building trust.**

The chart below also presents different strategies for creating and preserving trust as presented by psychologist, Steven Pinker. In his book, **The Better Angels of Our Nature**, Pinker provides a sustained argument that evil and violence have gradually diminished throughout the history of human kind. This decline is caused by an increase in trust in much the same way that cooperation places Prisoner Dilemma iterations on target toward the common good. Think about how the Pacifist’s Dilemma, Leviathan, Commerce,

Femiknization, and Cosmopolitanism and Reason can be modelled in the context of the Prisoner's Dilemma. (See below)

### 7.6.3 Trust Table

Table Summarizing Features of Trust

Core Meaning or Root Metaphor(1,1)	Description(1,2)	Features(1,3)	Exercises in Trust (Steven Pinker: The Better Angels of our Nature(1,4)	Cases and Examples(1,5)
The expectation of moral conduct on the part of others (Solomon)(2,1)	Urban-Walker: "Trust, in several varieties, is an attitude of reliance on others that holds those others responsible for the performance on which we rely" 27(2,2)	Attributes from Trudy Grovier summarized by Urban-Walker: (a) "expectation of benign behavior based on beliefs about a person's motivation and competence;" (b) "an attribution of general integrity;" (c) "an acceptance of risk and vulnerability;" (d) "disposition to interpret the trusted person's actions favorably;" 79(2,3)	<b>Pacifist's Dilemma:</b> "Common good dictates a strategy of peace. But individually, aggression is the best choice to protect against being the victim of aggression oneself."(2,4)	Death and the Maiden (Dorfman): a woman victimized under a South American dictatorship, has a chance to confront the man she believes raped her during the dictatorship.(2,5)
<i>continued on next page</i>				



Urban-Walker: "I propose, then, that we think of interpersonal trust generically as a kind of reliance on others whom we expect (perhaps only implicitly or unreflectively) to behave as relied upon...and to behave that way in the awareness...that they are liable to be held responsible." 78(3,1)	"expectation of others for recognition of shared moral standards" and their "responsiveness to those standards and support of the practices that express and enforce them" 28(3,2)	(3,3)	<b>Leviathan:</b> "The Leviathan (power, state, authority) is charged with maintaining peace by being endowed with the authority and power to punish the aggressor. by overawing potential aggressors and self-serving human nature, the Leviathan creates an additional external incentive that pushes potentially warring parties toward peace."(3,4)	<b>House of Games:</b> A confidence man, Mike, explains how he gains the trust of the mark by seeming first to give his own trust.(3,5)
Expectation of others to perform as relied upon(4,1)	Karen Jones: "trust is an affective attitude of optimism about the good will and competence of another in the domain of our interaction that creates an expectation that the other will be moved 'directly and favorably the thought that we are counting on her" 75(4,2)	Motives engendering trust from Pettit as summarized by Urban-Walker: "(a) 'keep the good opinion that my trust already displays" (b) "one may also be responsive to trust out of concern for reputation" (c) "in pursuit of reciprocity" (d) "out of fear of penalties for poor performance" (e) "out of an impersonal sense of obligation"(4,3)	<b>Commerce:</b> "Commerce, working through markets of exchange of goods, makes collaboration and peace mutually advantageous. The invisible hand of the market place steers our aggressions toward the common good." The market properly aligns incentives.(4,4)	<b>Classroom Behavior:</b> (a) The classroom consists of relations of trust where we rely on one another to live up to standards of academic honesty. (b) Failure triggers participant reactive attitudes like resentment and indignation.(4,5)
<i>continued on next page</i>				

The participant attitude toward reliance in which I am prepared to hold you responsible for doing what I assume you should do 80(5,1)	Anette Baier: "Trust is accepted vulnerability in relying on the good will and competence of others to 'take care' of something the truster cares about." 76(5,2)	(5,3)	<b>Feminization:</b> "Replacing masculine virtues of honor and audacity with feminine ones of care and stewardship, we remove incentives to war."(5,4)	<b>Financial Crises:</b> Former Goldman Sach executive claims that GS called clients "Muppets" and would think nothing about unloading bad investments on those with less experience and financial savvy. (5,5)
<b>Root Meaning:</b> "reliance on responsibility" (from Urban-Walker) with a close connection to Strawson's participatory reactive attitudes such as resentment and indignation. (6,1)	(6,2)	"Focus of trust" (closely paraphrased from Urban-Walker): (a) description within trust relation of distinct actions (b) designation of a task (c) reference to roles characterized by "standard assumptions" (d) mutually understood expectations developed in an ongoing relation (e) reference to general or specific norms 80-1(6,3)	<b>Cosmopolitanism and Reason:</b> "Cosmopolitanism expands the circle of sympathy to a global reach while replacing warrior emotions and passions with reason. (See Kant's recommendations for a Perpetual Peace.) (6,4)	Given regulatory gaps (and costs) and the need for a broad participation of individuals in financial markets, can finance perform its function (moving money throughout an economy) without trust? (6,5)

Table 7.4

### 7.6.4 Prisoner's Dilemma

Imagine that two patriotic spies, A and B, have just been captured by the enemy. Both are placed in separate interrogation cells and are being pressured to confess and provide details about their spying activities. A and B would like to coordinate their actions but the enemy has kept them apart to prevent this. In their malevolence they wish to pit A against B in order to get the desired information. To do this, they have set forth the following systems of motivations, i.e., punishments and rewards.

#### Options

1. If both A and B confess then A and B are put in jail for five years each. The net loss in this scenario is 10. This is the least desirable alternative from the collective standpoint.
2. If one (A or B) confesses while the other does not, the confessor is released immediately while the non-confessor gets seven years in prison. This is the self-interest maximizing option for the confessor and

the worst possible option for the non-confessing prisoner. Loss for confessor: 0. Loss for non-confessor: 7. Net loss: 7

3. If both do not confess then after six months of half-hearted interrogation (most of this time is for processing the prisoners' release), both are set free for lack of evidence. While not maximizing self-interest (this lies in one confessing while the other remains silent) this does maximize overall welfare by producing a net loss of only 1.

**Summary Table**

<b>Prisoner A / Prisoner B</b>	<b>Confess</b>	<b>Not-Confess</b>
<b>Confess</b>	Both A and B confess. This is the worst option collectively considered. Net loss: 10	B confesses while A does not confess. B maximizes self-interest while A suffers maximum individual loss. Net loss: 7
<b>Not-Confess</b>	A confesses while B does not confess. A maximizes self-interest and B suffers maximum individual loss. Net loss: 7	Both A and B do not confess. 0.5 loss to each (second best individually) while collectively considered this is the best outcome. Net loss: 1

**Table 7.5**

The Prisoner's Dilemma is designed to model the reality of corporate governance where the directors/owners of a corporation delegate responsibility for the corporation's operations to managers who are charged with pursuing, not their own interests, but those of their directors. The problem of corporate governance is how to institutionalize this cooperative arrangement. Can managers be left alone and trusted to pursue the best interests of the corporation? This is the position of stewardship theory. Or is it necessary to design a system of external controls and incentives (mostly punishments but some financial rewards) to keep the managers from diverting the operations of the corporation toward their exclusive, self-interests?

The latter approach is taken by agency theory. Here human nature precludes that managers will carry out the interests of directors unless externally motivated to do so. Naturally inclined to maximize self-interest, managers must be forced in the direction of director and owner interest through external incentives such as punishments and rewards (formulated in terms of incentives for producing results of value to the corporation as a whole).

The repeated iteration version of the Prisoner's Dilemma attempts to model this debate between agency theory and stewardship theory. If one holds that cooperation only arise through "tit for tat" strategies, then one advocates agency theory. If, on the other hand, one holds that repeated iterations build trust and give rise to altruistic activity, then one is more sympathetic to stewardship theory which holds that managers can set aside rational self-interest and act as stewards who represent or embody the interests of the owners.

The Prisoner's dilemma is discussed throughout the literature in business ethics. For a novel and insightful discussion in the context of corporate responsibility see Peter A. French, 1995 **Corporate Ethics** from Harcourt Brace College Publishers

## 7.6.5 What you are going to do

### Exercise One

- Play the Prisoner's Dilemma game with one of your group members.
- Make sure you understand the options and the rewards and punishments associated with each. If you confess while your teammate does not confess, you get 0 points while your teammate loses 7. If you both confess, you each lose 5 points for a net loss of 10. If you both decide to not confess, then you each lose 0.5 points with a net loss of 1.

- Play only one round.
- Do not discuss what you are thinking with your teammate. Remember the enemy is keeping you separate to prevent collaboration.

### Exercise Two

- This is the same as exercise one except you will play multiple rounds. Your teacher will not tell you how many rounds you are playing until you reach the last round.
- What is the difference between playing only one round and playing n rounds?
- Where are you more likely to compete or anticipate competing? When you are playing only one round, when you play several rounds and know in advance how many, or when you are playing an indefinite number of rounds and now find yourself on the last round?
- What can you do as a player to motivate your teammate to cooperate rather than compete? How should you respond when your teammate decides to cooperate and not confess? How should you respond in future rounds after your teammate confesses?

### Exercise Three

- a. The following are claims as to the assumptions made by the prisoner's dilemma. Evaluate each.
- Cooperation produces the best collective option and the second best individual option. This, in turn, assumes that cooperation produces more social welfare than competition.
- Free riding (competing) on the cooperation of others produces the most individual gain (for the free rider) but the second worst collective results. Society suffers losses from the harm done to the trusting, non-confessor and from the overall loss of trust caused by unpunished free-riding.
- Unlimited, pure competition (both prisoners confess) produces the worst collective results and the second worst individual results.
- Multiple iterations of the prisoner's dilemma eventually lead to cooperative behavior. But what causes this? (1) The trust that emerges as the prisoners, through repeated iterations, come to rely on one another? Or (2) the fear of "tit-for-tat" responses, i.e., punishing free riding by responding in kind on future iterations?
- b. Is the Prisoner's Dilemma neutral regarding human nature or does it assume Homo Economicus, namely, that each player is a socially atomistic, rational, self-interest maximizer?

### Exercise Four

- Agency theory assumes that cooperation is the best collective strategy but cannot be achieved by relying solely on human nature. This is because agency theory is based on Homo Economicus which holds that each human individual is a self-interest maximizer and is ontologically separate from other individuals and society. In other words, human individuals will seek to maximize self interest unless there are external constraints and incentives that force them toward what is best collectively. The best strategy for corporate governance under this approach is compliance. One identifies rules, monitors conduct, and punishes non-compliance.
- Opposed to agency theory is stewardship theory. While acknowledging that humans are strongly motivated by self interest, they are also equally capable of altruistic, other-oriented behavior. Hence what is required is an integrity approach to corporate governance that works to strengthen altruistic impulses through the development and fostering of trust.
- Write a short essay (or hold a discussion within your group) as to which approach is best. What is the underlying approach to human nature that each assumes. What are the strengths and drawbacks to each approach? Which approach is best supported by what you have learned from playing the Prisoner's Dilemma?

### 7.6.6 Works Cited

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3. Pettit, Philip. "The Cunning of Trust." **Philosophy and Public Affairs**. 24, 1995, 202-25.
4. Pinker, Steven. (2011). **The Better Angels of Our Nature: Why Violence Declined**. Viking Books.
5. Solomon, R. and Flores, F. (2001). **Building trust in business, politics, social relationships, and life**. New York: Oxford University Press.
6. Strawson, P.F. (1974/2008). "Freedom and Resentment". **Freedom and Resentment and Other Essays**. London: Routledge: 1-28.
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## Chapter 8

# Moral Exemplars and Virtue Ethics

### 8.1 Moral Exemplars in Business and Professional Ethics<sup>1</sup>

#### 8.1.1 Module Introduction

Through the activities of this module you will learn to balance cautionary tales in business and professional ethics with new stories about those who consistently act in a morally exemplary way. While cautionary tales teach us what to avoid, narratives from the lives of moral exemplars show us how to be good. A study of moral best practices in business and professional ethics shows that moral exemplars exhibit positive and learnable skills. This module, then, looks at moral exemplars in business and the professions, outlines their outstanding accomplishments, and helps you to unpack the strategies they use to overcome obstacles to doing good.

You will begin by identifying outstanding individuals in business and associated practices who have developed moral "best practices." Your task is look at these individuals, retell their stories, identify the skills that help them do good, and build a foundation for a more comprehensive study of virtue in occupational and professional ethics.

#### 8.1.2 Moral Exemplar Terms

##### Moral Exemplar

- An individual who demonstrates outstanding moral conduct often in the face of difficult or demanding circumstances. (Beyond the "call of duty" Your first item here
- Often moral exemplars perform actions that go beyond what is minimal, required, ordinary, or even extra-ordinary.
- Moral exemplars perform actions that are "above and beyond the call of duty."
- Most important, they perform these actions repeatedly across a career or even a lifetime. In some way, their exemplary conduct has become "second nature."

##### Supererogatory

- **"A supererogatory act is an act that is beyond the call of duty. It is something that is morally good to do but not obligatory. Examples of supererogatory acts are donating blood, volunteering on a rape crisis hotline, babysitting (without accepting recompense) a friend's two-year old triplets for the afternoon, or throwing oneself on a live hand grenade in order to save one's buddies' lives." (Baron, 1997: 614)**

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<sup>1</sup>This content is available online at <<http://cnx.org/content/m14256/1.11/>>.

- Baron's definition (found in the Encyclopedia of Business Ethics) captures how the supererogatory occupies a moral space well above that of the minimally decent or even the ordinary. Your second item here. Supererogatory actions are outstanding, extra-ordinary, and exemplary in both moral and practical senses.
- Urmson, a moral philosopher, remarks how the supererogatory has been neglected (up to the mid-twentieth century) by moral philosophy, dominated as it was in the previous century by the debate between Utilitarianism and Deontology.
- Two quotations from Urmson show this clearly: (1) **"But it does seem that these facts have been neglected in their general, systematic accounts of morality. It is indeed easy to see that on some of the best-known theories there is no room for such facts"** (Urmson, 1958, p. 206). (2) **"[s]imple utilitarianism, Kantianism, and intuitionism, then, have no obvious theoretical niche for the saint and the hero"** (Urmson, 1958: 207).
- Baron, M. (1997). "Supererogation", Blackwell Encyclopedic Dictionary of Business Ethics, Patricia H. Werhane and R. Edward Freeman, eds., New York: Blackwell: 614-7.
- Urmson, J.O. (1958). "Saints and Heroes." Essays in Moral Philosophy, A.I. Melden, ed., Seattle: University of Washington Press: 198-216.

### Moral Minimum

- Compare and distinguish the idea of the supererogatory with that of the moral minimum.
- The difference is between that which is morally exemplary versus that which is just over the threshold of wrongdoing.
- **"I suggest that moral minimums are best understood as negative standards, universally agreed upon "bottom lines" beyond which it is morally questionable to act. For example, it is almost always wrong to deliberately harm or contribute to harming another person or persons; to deliberately violate their rights to freedom, life, or property; to treat individuals or classes of individuals with disrespect; to compete or cooperate unfairly; not to honor promises or contract; or to be dishonest or deceitful. Whereas these moral minimums do not define goodness, fairness, or benefit, or define the positive content of rights, they set minimum guidelines for behavior that most people everywhere might agree on...."** (Werhane, 1999: 122).
- Werhane, P. (1999). Moral Imagination and Management Decision-Making, Oxford, UK: Oxford University Press.

### Moral Exemplar Criteria in Computing

1. Either a sustained commitment to moral ideals or ethical principles in computing that include a generalized respect for humanity or sustained evidence of moral virtue in the practice of computing.
2. A disposition to make computing decisions in accord with one's moral ideals or ethical principles, implying a consistency between one's actions and intentions and between the means and ends of one's actions
3. A willingness to risk one's self interest for the sake of one's moral values.
4. A tendency to be inspiring to other computer professional and thereby to move them to moral action
5. A sense of realistic humility about one's own importance relative to the world at large, implying a relative lack of concern for one's own ego.
6. Huff, C. and Barnard, L. (2009). "Good Computing: Moral Exemplars in the Computing Profession", IEEE Technology and Society Magazine: 47-54.

### Responders and Idealists

- This quotation from Blum provides a nice characterization of "moral responders."
- "the 'responder' moral exemplar does not, prior to confronting situations in which she manifests moral excellence, possess a set of moral principles which she has worked out explicitly, committed herself to, and attempted to guide her life by."



- "the responder responds to the situations she faces and to individuals in a 'morally excellent way.'".
- Blum, L. (1994). "Moral Exemplars: reflections on Schindler, the Trochmés, and others", *Moral Perception and Particularity*, Cambridge, Mass.: Cambridge University Press: 65-97.

### **Idealists**

- According to Blum (and Hailie), Magda Trochme is a responder while her husband, Andre Trochme is an idealist. Both perform morally exemplary and supererogatory actions but out of different motivations.
- "To be an idealist [one] must see these ideals as more than merely personal goals or a personal conception of the good. They must be formulated as general values, and regarded by the agent as having some kind of intrinsic worth or general validity.
- Blum, L. (1994). "Moral Exemplars: reflections on Schindler, the Trochmés, and others", *Moral Perception and Particularity*, Cambridge, Mass.: Cambridge University Press: 65-97.

### **Moral Heroes and Moral Saints**

- Moral heroes achieve their good and excellent goals only by making substantial sacrifices. The notion of self-sacrifice is the key distinguishing characteristic of this kind of exemplar.
- What distinguishes moral saints from other kinds of moral exemplar is the criterion of moral faultlessness; these exemplars achieve their excellences by means of conduct that is free from any moral flaw.
- Moral saints are often used to argue for the unity of virtues thesis, namely, that the virtues work together forming a system where each is necessary and mutually supports the others.

**Table of Moral Exemplars**

	Moral Heroes	Moral Saints
Idealists	MLK and Andre Trochme	Thomas More
Responders	Magda Trochme and Oscar Schindler	Mother Teresa and Saint Francis

**Table 8.1:** Table of Moral Exemplars

### **8.1.3 Exercise 1: Choose a moral exemplar**

- Identify a moral exemplar and provide a narrative description of his or her life story.
- To get this process started, look at the list of moral exemplars provided in this module. The links in the upper left hand corner of this module will help you to explore their accomplishments in detail. Feel free to choose your own exemplar. Make sure you identify someone in the occupational and professional areas such as business and engineering. These areas have more than their share of exemplars, but they tend to escape publicity because their actions avoid publicity generating disasters rather than bring them about.

### **8.1.4 Moral Exemplars**

- 1. William LeMesseur. LeMesseur designed the Citicorp Building in New York. When a student identified a critical design flaw in the building during a routine class exercise, LeMesseur responded, not by shooting the messenger, but by developing an intricate and effective plan for correcting the problem before it issued in drastic real world consequences. Check out LeMesseur's profile at [onlineethics](http://onlineethics) and see how he turned a potential disaster into a good deed.

- 2. Fred Cuny, starting in 1969 with Biafra, carried out a series of increasingly effective interventions in international disasters. He brought effective methods to disaster relief such as engineering know-how, political savvy, good business sense, and aggressive advocacy. His timely interventions saved thousands of Kurdish refugees in the aftermath of the Persian Gulf War in 1991. He also helped design and implement an innovative water filtration system in Sarajevo during the Bosnia-Serb conflict in 1993. For more details, consult the biographical sketch at [onlineethics](#).
- 3. Roger Boisjoly worked on a team responsible for developing o-ring seals for fuel tanks used in the Challenger Shuttle. When his team noticed evidence of gas leaks he made an emergency presentation before officials of Morton Thiokol and NASA recommending postponing the launch scheduled for the next day. When decision makers refused to change the launch date, Boisjoly watched in horror the next day as the Challenger exploded seconds into its flight. Find out about the courageous stand Boisjoly took in the aftermath of the Challenger explosion by reading the biographical sketch at [onlineethics](#).
- 4. Muhammad Yunus won the Nobel Prize for Peace in 2006. His effort in setting up "micro-businesses" funded through "micro-lending" has completely changed the paradigm on how to extend business practices to individuals at the bottom of the pyramid. Learn about his strategies for creating micro-businesses and how those strategies have been extended throughout the world, including Latin America, by listening to an interview with him broadcast by the Online News Hour. (See link included in this module.)
- 5. Bill Gates has often been portrayed as a villain, especially during the anti-trust suit against Microsoft in the mid 1990's. Certainly his aggressive and often ruthless business practices need to be evaluated openly and critically. But recently Gates stopped participating in the day-to-day management of his company, Microsoft, and has set up a charitable foundation to oversee international good works projects. Click on the link included in this module to listen to and read an interview recently conducted with him and his wife, Melinda, on their charitable efforts.
- 6. Jeffrey Skilling, former CEO of Enron, can hardly be called a moral exemplar. Yet when Enron was at its peak, its CEO, Jeffrey Skilling, was considered among the most innovative, creative, and brilliant of contemporary corporate CEOs. View the documentary, *The Smartest Guys in the Room*, read the book of the same title, and learn about the configuration of character traits that led to Skilling's initial successes and ultimate failure. A link included in this module will lead you to an interview with Skilling conducted on March 28, 2001.
- Inez Austin worked to prevent contamination from nuclear wastes produced by a plutonium production facility. Visit Online Ethics by clicking on the link above to find out more about her heroic stand.
- Rachael Carson's book, *The Silent Spring*, was one of the key events inaugurating the environmental movement in the United States. For more on the content of her life and her own personal act of courage, visit the biographical profile at Online Ethics. You can click on the Supplemental Link provided above.

### 8.1.5 Exercise Two: Moral Exemplar Profiles

- What are the positive and negative influences you can identify for your moral exemplar?
- What good deeds did your exemplar carry out?
- What obstacles did your moral exemplar face and how did he or she overcome them?
- What skills, attitudes, beliefs, and emotions helped to orient and motivate your moral exemplar?

### 8.1.6 Exercise Three

Prepare a short dramatization of a key moment in the life of your group's moral exemplar.

### 8.1.7 Textbox: Two different Types of Moral Exemplar

- Studies carried out by Chuck Huff into moral exemplars in computing suggest that moral exemplars can operate as craftspersons or reformers. (Sometimes they can combine both these modes.)

- Craftspersons (1) draw on pre-existing values in computing, (2) focus on users or customers who have needs, (3) take on the role of providers of a service/product, (4) view barriers as inert obstacles or puzzles to be solved, and (5) believe they are effective in their role.
- Reformers (1) attempt to change organizations and their values, (2) take on the role of moral crusaders, (3) view barriers as active opposition, and (4) believe in the necessity of systemic reform
- These descriptions of moral exemplars have been taken from a presentation by Huff at the STS colloquium at the University of Virginia on October 2006. Huff's presentation can be found at the link provided in the upper left hand corner of this module.

### Elements of a Life Story Interview

- Major Influences
- Peak and Nadir Experiences
- Challenges and Opportunities.
- Goals, Values, and Objectives
- Commentary: The life story interview collects the subject's life in narrative form. Those conducting to the interview along with those studying it are skilled in identifying different patterns and structures in the interview. (Identifying and classifying the patterns is called "coding".)
- Huff, Rogerson, and Barnard interviewed moral exemplars in computing in Europe and coded for the following: "social support and antagonism, the use of technical or social expertise, the description of harm to victims or need for reform, actions taken toward reform, designs undertaken for users or clients, effectiveness and ineffectiveness of action, and negative and positive emotion" (Huff and Barnard, 2009: 50).
- They identified two kinds of moral exemplars in computing: helpers (or craftspersons) and reformers.

### Helpers and Reformers

- **Craftspersons** work to preserve existing values, see themselves as providers of a service, frame problems as overcoming barriers, and seek ethical ends (Huff and Barnard, 2009: 50).
- **Reformers** focus on social systems, see themselves as moral crusaders, work to change values, view individuals as victims of injustice, and take system reform as their goal (Huff and Barnard, 2009: 50).

## 8.1.8 What Makes a Moral Exemplar? PRIMES Explained

### General Comments on Exemplars

- Moral exemplars have succeeded in integrating moral and professional attitudes and beliefs into their core identity. Going against these considerations for moral exemplars is tantamount to acting against self. Acting in accordance with them becomes second nature.
- Moral exemplars often achieve their aims with the support of "support groups." In fact, moral exemplars are often particularly adept at drawing support from surrounding individuals, groups and communities. This goes against the notion that exemplars are isolated individuals who push against the current. (Not all exemplars need fit as heroes into Ayn Rand novels.)
- Moral exemplars often do not go through periods of intensive and prolonged deliberation in order to hit upon the correct action. If we want a literary example, we need to replace the tortured deliberations of a Hamlet with the quick and intuitive insight of an Esther Summerson. (Summerson is a character in Charles Dickens' novel, Bleak House. See both William Shakespeare and Charles Dickens for more examples of villains and exemplars.) Some have situated moral exemplars within virtue ethics. They have cultivated moral habits that allow them to do good as second nature. They have also found ways to integrate moral reasoning with emotion (as motive), perception (which helps them zero in on moral relevance), and skill (which helps implement moral value). In this sense, moral expertise functions much as athletic or technical expertise; all are difficult to acquire but once acquired lead to highly skilled actions performed almost effortlessly.

**PRIMES**

Primes stands for Personality, Integrating value into self-system, Moral Ecology, and Moral Skills Sets. These are the elements composing moral expertise that have been identified by Huff and Rogerson based on interviews they conducted with exemplars in the areas of computing.

**Personality**

- Moral exemplars exhibit different configurations of personality traits based on the big five. Locate the moral exemplar you have chosen in terms of the following five continuums (or continua):
- Neuroticism to Lack of Neuroticism (Stability?)
- Agreeableness to Disagreeableness
- Extraversion to Introversion
- Openness to Closedness
- Conscientiousness to Lack of Conscientiousness
- Examine your exemplar on each of these scales. In and of themselves, these qualities are neither good nor bad. They can be integrated to form bad characters or good characters. In many cases, moral exemplars stand out through how they have put their personality characteristics to "good use." (They have used them as vehicles or channels to excellence.)

**Integrating Moral Value into Self-System**

- As said above, moral exemplars stand out by the way in which (and the extent to which) they have integrated moral value into their self-system. Because of this, they are strongly motivated to do good and avoid doing bad. Both (doing good and refraining from doing bad) express who they are. If they slip into bad deeds, this motivational system pushes them to improve to avoid repeating bad deeds.
- One way of integrating moral value into self-system is by looking at stories and narratives of those who have displayed moral excellence. Many of the individuals portrayed above (Carson, Boisjoly, LeMesseur, Cuny, Austin, and Yunus) provide concrete models of outstanding moral careers.
- Literature also provides its models of moral exemplars. Charles Dickens paints especially powerful portraits of both moral heroes (Esther Summerson and "Little Dorritt") and villains (Heep and Skimpole).
- Other vehicles for integrating moral value centrally into the self-system lie in affiliations, relationships, and friendships. Aristotle shows the importance of good friendships in developing virtues. Moral exemplars most often can point to others who have served as mentors or strong positive influences. For example, Roger Boisjoly tells of how he once went to a senior colleague for advice on whether to sign off on a design that was less than optimal. His colleague's advice: would you be comfortable with your wife or child using a product based on this design?
- The ethicist, Bernard Williams, has argued forcefully for the importance of personal projects in establishing and maintaining integrity. Personal projects, roles, and life tasks all convey value; when these hold positive moral value and become central unifying factors in one's character, then they also serve to integrate moral value into the self system.
- Augusto Blasi, a well known moral psychologist, gives a particularly powerful account (backed by research) of the integration of moral value into self-system and its motivational effect.

**Moral Ecology**

- Moral Ecologies: "The term moral ecology encourages us to consider the complex web of relationships and influences, the long persistence of some factors and the rapid evolution of others, the variations in strength and composition over time, the micro-ecologies that can exist within larger ones, and the multidirectional nature of causality in an ecology." From Huff et. al.
- Moral ecologies refer to social surrounds, that is, the different groups, organizations, and societies that surround us and to which we are continually responding.
- We interact with these social surrounds as organisms interact with their surrounding ecosystems. In fact, moral ecologies offer us roles (like ecological niches) and envelop us in complex organizational

systems (the way ecosystems are composed of interacting and interrelated parts). We inhabit and act within several moral ecologies; these moral ecologies, themselves, interact. Finally, moral ecologies, like natural ecosystems, seek internal and external harmony and balance. Internally, it is important to coordinate different the constituent individuals and the roles they play. Externally, it is difficult but equally important to coordinate and balance the conflicting aims and activities of different moral ecologies.

- Moral ecologies shape who we are and what we do. This is not to say that they determine us. But they do channel and constrain us. For example, your parents have not determined who you are. But much of what you do responds to how you have experienced them; you agree with them, refuse to question their authority, disagree with them, and rebel against them. The range of possible responses is considerable but these are all shaped by what you experienced from your parents in the past.
- The moral ecologies module (see the link provided above) describes three different moral ecologies that are important in business: quality-, customer-, and finance-driven companies. (More "kinds" could be generated by combining these in different ways: for example, one could characterize a company as customer-driven but transforming into a quality-driven company.) Roles, strategies for dissent, assessment of blame and praise, and other modes of conduct are shaped and constrained by the overall character of the moral ecology.
- Moral ecologies, like selves, can also be characterized in terms of the "centrality" of moral value. Some support the expression of moral value or certain kinds of moral value (like loyalty) while undermining or suppressing the expression of others (like courage or autonomy).
- Finally, think in terms of how personality traits integrated around moral value interact with different types of moral ecology. If a moral ecology undermines virtuous conduct, what strategies are available for changing it? Or resisting it? If there are different kinds of moral exemplar, which pair best with which moral ecology? (How would a helper or craftsman prevail in a finance-driven moral ecology like those characterized by Robert Jackall in **Moral Mazes**?

### Moral Skills Sets

- Moral expertise is not reducible to knowing what constitutes good conduct and doing your best to bring it about. Realizing good conduct, being an effective moral agent, bringing value into the work, all require skills in addition to a "good will." PRIMES studies have uncovered four skill sets that play a decisive role in the exercise of moral expertise.
- **Moral Imagination:** The ability to project into the standpoint of others and view the situation at hand through their lenses. Moral imagination achieves a balance between becoming lost in the perspectives of others and failing to leave one's own perspective. Adam Smith terms this balance "proportionality" which we can achieve in empathy when we feel with them but do not become lost in their feelings. Empathy consists of feeling with others but limiting the intensity of that feeling to what is proper and proportionate for moral judgment.
- **Moral Creativity:** Moral Creativity is close to moral imagination and, in fact, overlaps with it. But it centers in the ability to frame a situation in different ways. Patricia Werhane draws attention to a lack of moral creativity in the Ford Pinto case. Key Ford directors framed the problem with the gas tank from an economical perspective. Had they considered other framings they might have appreciated the callousness of refusing to recall Pintos because the costs of doing so (and retrofitting the gas tanks) were greater than the benefits (saving lives). They did not see the tragic implications of their comparison because they only looked at the economic aspects. Multiple framings open up new perspectives that make possible the design of non-obvious solutions.
- **Reasonableness:** Reasonableness balances openness to the views of others (one listens and impartially weighs their arguments and evidence) with commitment to moral values and other important goals. One is open but not to the extent of believing anything and failing to keep fundamental commitments. The Ethics of Team Work module (see link above) discusses strategies for reaching consensus that are employed by those with the skill set of reasonableness. These help avoid the pitfalls of group-based deliberation and action.

- **Perseverance:** Finally, perseverance is the "ability to plan moral action and continue on that course by responding to circumstances and obstacles while keeping ethical goals intact." Huff et. al.

### 8.1.9 Presentation on Moral Exemplars

[MEDIA OBJECT]<sup>2</sup>

### 8.1.10 Bibliography

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Insert paragraph text here.

## 8.2 Theory-Building Activities: Virtue Ethics<sup>3</sup>

Based on material presented by Chuck Huff (St. Olaf College) and William Frey at the Association for Practical and Professional Ethics in 2005 at San Antonio, TX. Preliminary versions were distributed during this presentation.

<sup>2</sup>This media object is a downloadable file. Please view or download it at  
<Brief Comments on Moral Exemplars.pptx>

<sup>3</sup>This content is available online at <<http://cnx.org/content/m13755/1.14/>>.

### 8.2.1 Module Introduction

This module uses materials being prepared for Good Computing: A Virtue Approach to Computer Ethics, to set up an exercise in which you will identify and spell out virtues relevant to your professional discipline. After identifying these virtues, you will work to contextualize them in everyday practice. Emphasis will be placed on the Aristotelian approach to virtues which describes a virtue as the disposition toward the mean located between the extremes of excess and defect. You will also be asked to identify common obstacles that prevent professionals from realizing a given virtue and moral exemplars who demonstrate consistent success in realizing these virtues and responding to obstacles that stand in the way of their realization. In a variation on this module you could be asked to compare the virtues you have identified for your profession with virtues that belong to other moral ecologies such as those of the Homeric warrior.

### 8.2.2 Three Versions of Virtue Ethics: Virtue 1, Virtue 2, and Virtue 3

Virtue ethics has gone through three historical versions. The first, Virtue 1, was set forth by Aristotle in ancient Greece. While tied closely to practices in ancient Greece that no longer exist today, Aristotle's version still has a lot to say to us in this day and age. In the second half of the twentieth century, British philosophical ethicists put forth a related but different theory of virtue ethics (virtue 2) as an alternative to the dominant ethical theories of utilitarianism and deontology. Virtue 2 promised a new foundation of ethics consistent with work going on at that time in the philosophy of mind. Proponents felt that turning from the action to the agent promised to free ethical theory from the intractable debate between utilitarianism and deontology and offered a way to expand scope and relevance of ethics. Virtue 3 reconnects with Aristotle and virtue 1 even though it drops the doctrine of the mean and Aristotle's emphasis on character. Using recent advances in moral psychology and moral pedagogy, it seeks to rework key Aristotelian concepts in modern terms. In the following, we will provide short characterizations of each of these three versions of virtue ethics.

### 8.2.3 Virtue 1: Aristotle's Virtue Ethics

- **Eudaimonia.** Happiness, for Aristotle, consists of a life spent fulfilling the intellectual and moral virtues. These modes of action are auto-telic, that is, they are self-justifying and contain their own ends. By carrying out the moral and intellectual virtues for a lifetime, we realize ourselves fully as humans. Because we are doing what we were meant to do, we are happy in this special sense of eudaimonia.
- **Arete.** Arete is the Greek word we usually translate as "virtue". But arete is more faithfully translated as excellence. For Aristotle, the moral and intellectual virtues represent excellences. So the moral life is more than just staying out of trouble. Under Aristotle, it is centered in pursuing and achieving excellence for a lifetime.
- **Virtue as the Mean.** Aristotle also characterizes virtue as a settled disposition to choose the **mean** between the extremes of excess and defect, all relative to person and situation. Courage (the virtue) is the mean between the extremes of excess (too much courage or recklessness) and defect (too little courage or cowardice). Aristotle's claim that most or all of the virtues can be specified as the mean between extremes is controversial. While the doctrine of the mean is dropped in Virtue 2 and Virtue 3, we will still use it in developing virtue tables. (See exercise 1 below.) You may not find both extremes for the virtues you have been assigned but make the effort nonetheless.
- **Ethos.** "Ethos" translates as character which, for Aristotle, composes the seat of the virtues. Virtues are well settled dispositions or habits that have been incorporated into our characters. Because our characters are manifested in our actions, the patterns formed by these over time reveal who we are. This can be formulated as a decision-making test, the **public identification test**. Because we reveal who we are through our actions we can ask, when considering an action, whether we would care to be publicly identified with this action. "Would I want to be publicly known as the kind of person who would perform that kind of action? Would I, through my cowardly action, want to be publicly

identified as a coward? Would I, through my responsible action, want to be publicly identified as a responsible person? Because actions provide others with a window into our characters, we must make sure be sure that they portray us as we want to be portrayed.

- **Aisthesis of the Phronimos.** This Greek phrase, roughly translated as the perception of the morally experienced agent, reveals how important practice and experience are to Aristotle in his conception of moral development. One major difference between Aristotle and other ethicists (utilitarians and deontologists) is the emphasis that Aristotle places on developing into or becoming a moral person. For Aristotle, one becomes good by first repeatedly performing good actions. So morality is more like an acquired skill than a mechanical process. Through practice we develop sensitivities to what is morally relevant in a situation, we learn how to structure our situations to see moral problems and possibilities, and we develop the skill of "hitting" consistently on the mean between the extremes. All of these are skills that are cultivated in much the same way as a basketball player develops through practice the skill of shooting the ball through the hoop.
- **Bouleusis.** This word translates as "deliberation." For Aristotle, moral skill is not the product of extensive deliberation (careful, exhaustive thinking about reasons, actions, principles, concepts, etc.) but of practice. Those who have developed the skill to find the mean can do so with very little thought and effort. Virtuous individuals, for Aristotle, are surprisingly unreflective. They act virtuously without thought because it has become second nature to them.
- **Akrasia.** Ross translates this word as "incontinence" which is outmoded. A better translation is weakness of will. For Aristotle, knowing where virtue lies is not the same as doing what virtue demands. There are those who are unable to translate knowledge into resolution and then into action. Because akrasia (weakness of will) is very real for Aristotle, he also places emphasis in his theory of moral development on the cultivation of proper emotions to help motivate virtuous action. Later ethicists seek to oppose emotion and right action; Aristotle sees properly trained and cultivated emotions as strong motives to doing what virtue requires.
- **Logos** Aristotle's full definition of virtue is "a state of character concerned with choice, lying in a mean, i.e. the mean relative to us, this being determined by a rational principle, and by that principle by which [a person] of practical wisdom would determine it." (Ross's translation in **Nichomachean Ethics**, 1106b, 36.) We have talked about character, the mean, and the person of practical wisdom. The last key term is "logos" which in this definition is translated by reason. This is a good translation if we take reason in its fullest sense so that it is not just the capacity to construct valid arguments but also includes the practical wisdom to assess the truth of the premises used in constructing these arguments. In this way, Aristotle expands reason beyond logic to include a fuller set of intellectual, practical, emotional, and perceptual skills that together form a practical kind of wisdom.

## 8.2.4 Virtue 2

- The following summary of Virtue 2 is taken largely from Rosalind Hursthouse. While she extensively qualifies each of these theses in her own version of virtue ethics, these points comprise an excellent summary of Virtue 2 which starts with G.E.M. Anscombe's article, "Modern Moral Philosophy," and continues on into the present. Hursthouse presents this characterization of Virtue 2 in her book, **On Virtue Ethics** (2001) U.K.: Oxford University Press: 17.
- **Virtue 2 is agent centered.** Contrary to deontology and utilitarianism which focus on whether actions are good or right, V2 is agent centered in that it sees the action as an expression of the goodness or badness of the agent. Utilitarianism focuses on actions which bring about the greatest happiness for the greatest number; deontology seeks those actions that respect the autonomy of individuals and carry out moral obligations, especially duties. These theories emphasize **doing** what is good or right. Virtue 2, on the other hand, focuses on the agent's becoming or **being** good.
- **Can Virtue 2 tell us how to act?** Because V2 is agent-centered, critics claim that it cannot provide insight into how to act in a given situation. All it can say is, "Act the way a moral exemplar would act." But what moral standards do moral exemplars use or embody in their actions? And what moral



standards do we use to pick out the moral exemplars themselves? Hursthouse acknowledges that this criticism hits home. However, she points out that the moral standards come from the moral concepts that we apply to moral exemplars; they are individuals who act **courageously**, exercise **justice**, and realize **honesty**. The moral concepts "courage," "justice," and "honesty" all have independent content that helps guide us. She also calls this criticism unfair: while virtue 2 may not provide any more guidance than deontology or utilitarianism, it doesn't provide any less. Virtue 2 may not provide perfect guidance, but what it does provide is favorably comparable to what utilitarianism and deontology provide.

- **Virtue 2 replaces Deontic concepts (right, duty, obligation) with Aretaic concepts (good, virtue).** This greatly changes the scope of ethics. Deontic concepts serve to establish our minimum obligations. On the other hand, aretaic concepts bring the pursuit of excellence within the purview of ethics. Virtue ethics produces a change in our moral language that makes the pursuit of excellence an essential part of moral inquiry.
- Finally, there is a somewhat different account of virtue 2 (call it virtue 2a) that can be attributed to Alisdair MacIntyre. This version "historicizes" the virtues, that is, looks at how our concepts of key virtues have changed over time. (MacIntyre argues that the concept of justice, for example, varies greatly depending on whether one views justice in Homeric Greece, Aristotle's Greece, or Medieval Europe.) Because he argues that skills and actions are considered virtuous only in relation to a particular historical and community context, he redefines virtues as those skill sets necessary to realize the goods or values around which social practices are built and maintained. This notion fits in well with professional ethics because virtues can be derived from the habits, attitudes, and skills needed to maintain the cardinal ideals of the profession.

## 8.2.5 Virtue 3

**Virtue 3 can best be outlined by showing how the basic concepts of Virtue 1 can be reformulated to reflect current research in moral psychology.**

1. **Reformulating Happiness (Eudaimonia).** Mihaly Csikszentmihalyi has described flow experiences (see text box below) in which autotelic activities play a central role. For Aristotle, the virtues also are autotelic. They represent faculties whose exercise is key to realizing our fullest potentialities as human beings. Thus, virtues are self-validating activities carried out for themselves as well as for the ends they bring about. Flow experiences are also important in helping us to conceptualize the virtues in a professional context because they represent a well practiced integration of skill, knowledge, and moral sensitivity.
2. **Reformulating Values (Into Arete or Excellence).** To carry out the full project set forth by virtue 3, it is necessary to reinterpret as excellence key moral values such as honesty, justice, responsibility, reasonableness, and integrity. For example, moral responsibility has often been described as carrying out basic, minimal moral obligations. As an excellence, responsibility becomes refocused on extending knowledge and power to expand our range of effective, moral action. Responsibility reformulated as an excellence also implies a high level of care that goes well beyond what is minimally required.
3. **De-emphasizing Character.** The notion of character drops out to be replaced by more or less enduring and integrated skills sets such as moral imagination, moral creativity, reasonableness, and perseverance. Character emerges from the activities of integrating personality traits, acquired skills, and deepening knowledge around situational demands. The unity character represents is always complex and changing.
4. **Practical Skill Replaces Deliberation.** Moral exemplars develop skills which, through practice, become second nature. These skills obviate the need for extensive moral deliberation. Moral exemplars resemble more skillful athletes who quickly develop responses to dynamic situations than Hamlets stepping back from action for prolonged and agonizing deliberation.

5. **Greater Role for Emotions.** Nancy Sherman discusses how, for Aristotle, emotion is not treated as an irrational force but as an effective tool for moral action once it has been shaped and cultivated through proper moral education. To step beyond the controversy of what Aristotle did and did not say about the emotions (and where he said it) we place this enhanced role for emotions within virtue 3. Emotions carry out four essential functions: (a) they serve as modes of attention; (b) they also serve as modes of responding to or signaling value; (c) they fulfill a revelatory function; and (d) they provide strong motives to moral action. Nancy Sherman, **Making a Necessity of Virtue: Aristotle and Kant on Virtue** (1997), U.K.: Cambridge University Press: 39-50.

### 8.2.6 Flow Experiences

- The psychologist, Mihaly Csikszentmihalyi, has carried out fascinating research on what he terms "flow experiences." Mike Martin in **Meaningful Work** (2000) U.K.: Oxford,; 24, summarizes these in the following bullets:
- "clear goals as one proceeds"
- "immediate feedback about progress"
- "a balance between challenges and our skills to respond to them"
- "immersion of awareness in the activity without disruptive distractions"
- "lack of worry about failure"
- loss of anxious self-consciousness"
- time distortions (either time flying or timeslowing pleasurably)"
- the activity becomes **autotelic**: an end in itself, enjoyed as such"

### 8.2.7 Virtue Tables

The table just below provides a format for spelling out individual virtues through (1) a general description, (2) the correlative vices of excess and defect, (3) the skills and mental states that accompany and support it, and (4) real and fictional individuals who embody it. Following the table are hints on how to identify and characterize virtues. We start with the virtue of integrity:

Virtue	Description	Excess	Defect	Obstacles to realizing the virtue in professional practices	Moral Exemplar
Integrity	A meta-virtue in which the holder exhibits unity of character manifested in holding together even in the face of strong disruptive pressures or temptations	Excess: Rigidity—sticking to one's guns even when one is obviously wrong(2,3)	Defect: Wantonness. A condition where one exhibits no stability or consistency in character	Individual corruption: Individuals can be tempted by greed toward the vice of defect. Lack of moral courage can also move one to both extremes	Saint Thomas More as portrayed in Robert Bolt's A Man for All Seasons. More refuses to take an oath that goes against the core beliefs in terms of which he defines himself.
				Institutional Corruption: One may work in an organization where corruption is the norm. This generates dilemmas like following an illegal order or getting fired.	
<i>continued on next page</i>					

Table 8.2

### 8.2.8 Exercise 1: Construct Virtue Tables for Professional Virtues

1. Discuss in your group why the virtue you have been assigned is important for the practice of your profession. What goods or values does the consistent employment of this virtue produce?
2. Use the discussion in #1 to develop a general description of your virtue. Think along the following lines: people who have virtue X tend to exhibit certain characteristics (or do certain things) in certain kinds of situations. Try to think of these situations in terms of what is common and important to your profession or practice.
3. Identify the corresponding vices. What characterizes the points of excess and defect between which your virtue as the mean lies?
4. What obstacles arise that prevent professionals from practicing your virtue? Do well-meaning professionals lack power or technical skill? Can virtues interfere with the realization of non-moral values like financial values? See if you can think of a supporting scenario or case here.
5. Identify a moral exemplar for your virtue. Make use of the exemplars described in the **Moral Exemplars in Business and Professional Ethics** module.
6. Go back to task #2. Redefine your description of your virtue in light of the subsequent tasks, especially the moral exemplar you identified. Check for coherence.
7. Finally, does your virtue stand alone or does it need support from other virtues or skills? For example, integrity might also require moral courage.

### 8.2.9 Exercise 2: Reflect on these Concluding Issues

- Did you have trouble identifying a moral exemplar? Many turn to popular figures for their moral exemplars. Movies and fiction also offer powerful models. Why do you think that it is hard to find moral exemplars in your profession? Is it because your profession is a den of corruption? (Probably not.) Do we focus more on villains than on heroes? Why or why not?
- What did you think about the moral leaders portrayed in the **Moral Exemplars in Business and Professional Ethics** module?
- Did you have trouble identifying both vices, i.e., vices of excess and defect? If so, do you think this because some virtues may not have vices of excess and defect? What do you think about Aristotle's doctrine of the mean?
- Did you notice that the virtue profiles given by your group and the other groups in the class overlapped? Is this a problem for virtue theory? Why do our conceptions of the key moral values and virtues overlap?
- Did you find the virtues difficult to apply? What do you think about the utilitarian and deontological criticism of virtue ethics, namely, that it cannot provide us with guidelines on how to act in difficult situations? Should ethical theories emphasize the act or the person? Or both?
- The most tenacious obstacle to working with virtue ethics is to change focus from the morally minimal to the morally exemplary. "Virtue" is the translation of the Greek word, *arête*. But "excellence" is, perhaps, a better word. Understanding virtue ethics requires seeing that virtue is concerned with the exemplary, not the barely passable. (Again, looking at moral exemplars helps.) *Arête* transforms our understanding of common moral values like justice and responsibility by moving from minimally acceptable to exemplary models.

Moral Leaders<sup>4</sup> The profiles of several moral leaders in practical and professional ethics. Computer Ethics Cases<sup>5</sup> This link provides several computer ethics cases and also has a description of decision making and

<sup>4</sup><http://www.onlineethics.org>

<sup>5</sup><http://www.computingcases.org>

socio-technical systems frameworks. Moral Exemplars in Business and Professional Ethics (Section 8.1) Profiles of several moral leaders in practical and professional ethics.

## 8.2.10 Presentation on Virtue Ethics

[MEDIA OBJECT]<sup>6</sup>

### 8.2.10.1 I. Why Study Virtue Ethics?

#### Reasons

- It provides new insights into moral education
- Involves the whole self: attitudes, knowledge, skill, emotion
- It reorients moral theory toward excellence

### 8.2.10.2 II. Three Definitions

#### Elena Lugo

- “Las virtudes son disposiciones y rasgos del carácter del agente moral a la hora de ejecutar las acciones inherentes al ser persona.
- se trata de un punto intermedio entre dos extremos, ninguno de los cuales representa un valor moral, sino que más bien puede constituir un vicio o al menos carecer de excelencia
- no son meros rasgos del carácter que se operan automáticamente, sino respuestas deliberadas ante las situaciones concretas
- Lugo, E. (2002) Relación Médico / paciente: encuentro interpersonal ética y espiritualidad. Pontificia Universidad Católica de Puerto Rico: 88

#### Rosalind Hursthouse

- “A virtue such as honesty or generosity is not just a tendency to do what is honest or generous, nor is it to be helpfully specified as a “desirable” or “morally valuable” character trait.
- It is, indeed a character trait—that is, a disposition which is well entrenched in its possessor, something that, as we say “goes all the way down”, unlike a habit such as being a tea-drinker—but the disposition in question... is multi-track.
- It is concerned with many other actions as well, with emotions and emotional reactions, choices, values, desires, perceptions, attitudes, interests expectations and sensibilities.
- To possess a virtue is to be a certain sort of person with a certain complex mindset.”
- Hursthouse, R. (2007) “Virtue Ethics” Stanford Encyclopedia of Philosophy <http://plato.stanford.edu/entries/ethics-virtue/>

#### MacIntyre

- MacIntyre, a modern theorist, brings out the communitarianism in Aristotle
- **“A virtue is an acquired human quality the possession and exercise of which tend to enable us to achieve those goods which are internal to practices and the lack of which effectively prevents us from achieving any such goods.”**

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<sup>6</sup>This media object is a downloadable file. Please view or download it at  
<An Introduction to Virtue Ethics.pptx>

### 8.2.10.3 III. Virtues and Practices

Virtues are dispositions that bring about the internal and external goods around which a social or professional practice is built.

#### Constituents of a Practice

- **Participants:** Formed of individuals whose activities, attitudes, and goals are integrated, shared, or overlap in significant ways
- **Rules and Procedures:** Participants occupy roles which outline tasks and procedures. Roles in a practice are coordinated so that they combine to bring about complex ends beyond the capabilities of isolated individuals
- **Boundaries:** Boundaries such as disciplinary and theoretical principles surround practices and serve to distinguish one from the other
- **External Goals:** Engineering serves public wellbeing. Medicine health. Law justice. Business commerce.
- **Internal Goals:** Engineering has the internal goals of faithful agency (to client), collegiality (to peers), and loyalty (to the profession or practice itself)

### 8.2.10.4 IV. Developing Virtues for Practices

1. **Choose a virtue that is important for your occupation or profession. What goods or values does the consistent employment of this virtue produce?**
2. **Develop a general description of your virtue.** (Think along the following lines: people who have virtue X tend to exhibit certain characteristics (or do certain things) in certain kinds of situations. Try to think of these situations in terms of what is common and important to your profession or practice.)
3. **Identify the corresponding vices of excess and defect.**
4. **Identify the obstacles arise that prevent professionals from practicing your virtue?** Do well-meaning professionals lack power or technical skill?
5. **Identify a moral exemplar for your virtue.** Make use of the exemplars described in the Moral Exemplars in Business and Professional Ethics module.
6. **Does your virtue stand alone or does it need support from other virtues or skills?** For example, integrity might also require moral courage.

### 8.2.11 Resources

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- Sherman, N. (1989). *The Fabric of Character: Aristotle's Theory of Virtue*. UK: Oxford, Oxford University Press.
- Hursthouse, R. (1999). *On Virtue Ethics*. UK: Oxford, Oxford University Press.
- *Virtue Ethics*. (2003). Edited by Stephen Darwall. UK: Oxford: Blackwell.
- Blum, L. (1994). *Moral Perception and Particularity*. UK: Cambridge University Press.
- Pincoffs, E.L. (1986). *Quandaries and Virtues: Against Reductivism in Ethics*. Lawrence, KS: University of Kansas Press.
- *Virtue Ethics* (1997). Edited by Crisp, R. and Slote, M. UK: Oxford, Oxford University Press.
- *Environmental Virtue Ethics*. (2005). Edited by Sandler, R. and Cafaro, P. New York: Rowman and Littlefield.
- Frey, W. (2008). "Engineering Ethics in Puerto Rico: Issues and Narratives. *Science and Engineering Ethics*, 14: 417-431.
- Frey, W. (2010). "Teaching Virtue: Pedagogical Implications of Moral Psychology. *Science and Engineering Ethics*, 16: 611-628.

- Huff, C., Barnard, L. and Frey, W. (2008) "Good computing: a pedagogically focused model of virtue in the practice of computing (parts 1 and 2)." *Information, Communication and Ethics in Society*, 6(3), 246-278.
- Huff, C., Barnard, L. and Frey, W. (2008) "Good computing: a pedagogically focused model of virtue in the practice of computing (parts 1 and 2)." *Information, Communication and Ethics in Society*, 6(4), 284-316.,

## 8.3 Business and Moral Leaders<sup>7</sup>

### 8.3.1 Business Leadership

First, consider an argument that is frequently made. Hitler was a bad—in fact a horrible—person. But he was a good leader. Even though he led in the wrong direction, toward the wrong goals, for the wrong reasons, he led effectively. He got things done. In other words, he was adept at devising effective and efficient means toward already determined ends.

The starting (and finishing) point of this module is that a business leader—or any other leader—cannot be a good leader without, at the same time, being a moral or ethical leader. To illustrate this point, we will look at the analysis of leadership given by Joseph A. Petrick and John F. Quinn in their book, **Management Ethics: Integrity at Work** (Sage, 1997: 210-214).

Petrick and Quinn provide the following definition of leadership: **"Leading is the intended, coordinated, emergent and realized pattern of decision processes and actions that induce or influence the character and conduct of organizational members in appropriate directions by using appropriate resources."** (210) They proceed to unpack this definition by means of a series of useful lists (212).

#### "Culpably negligent leading"

- "absence of explicitly intended leadership vision"
- "inefficiently coordinated leadership style matches"
- "leading that is rigidly unresponsive to emergent contingencies"
- "inadequately realized leadership opportunities"
- "unintegrated patterns of leadership processes and actions"
- "leading that misdirects core business processes"
- "leadership that persists in disrespecting people"
- Consider some of the key words in this list as well as their opposites: vision, inefficiency (efficiency), unresponsiveness (responsiveness), unintegrated (integrated), misdirection (direction), and disrespecting (respecting). This negative list implies a positive list that includes values and virtues. Good leadership here is morally good leadership because it includes vision, integrity (integrating **"processes and actions"**) responsiveness (and taking responsibility), and respect, especially respect for owners, customers, and employees.

The table just below compares a list of leadership traits identified by Petrick and Quinn with a list of engineering ethical virtues identified by Pritchard and Jaska. There are many values in common such as creativity, cooperativeness, persistence, and integrity. One important discrepancy: while the engineering list includes "willingness to sacrifice self-interest" there is no reference to this in the business list. (In fact, much of the research in business in academia assumes that humans necessarily act on the basis of self-interest; their actions can be predicted on the basis of assuming that they are rational self-interest maximizers.) There are also differences in emphasis; compare ambition to "not being too ambitious" and think about the subtle difference expressed here. (See Pritchard, M. (1998). "Professional Responsibility: Focusing on the Exemplary." *Science and Engineering Ethics*, Volume 4, Issue 2: 215-233.)

<sup>7</sup>This content is available online at <<http://cnx.org/content/m60084/1.2/>>.

**List 2: Positive Leadership Traits**



Petrick and Quinn Business leadership traits		Pritchard and Jaska: Engineering Ethical Virtues	
Intelligence	Tolerance of stress	Integrity	Perseverance
Knowledge	Tolerance of stress	Honesty	Creative Engineering Imagination
Emotional stability	Personal Integrity	Cooperativeness	Willingness to sacrifice self-interest
Adaptability	Resourcefulness	Courage	Not being too ambitions
Alertness	Ambition	Ability to communicate	Caring about engineering per-se
Assertiveness	Achievement-oriented	Habit of documenting	Macroscopic vision (as well as microscopic vision)
Decisive judgment	Cooperativeness	Openness to correction	Civic-mindedness
Energetic	Dependability	cooperativeness	Competence
Persistence	Dominance	Willingness to compromise	Commitment to quality
Self-confidence	Willingness to assume responsibility		

**Table 8.3:** Petrick and Quinn (212) set forth a list of positive leadership traits. These are compared to engineering ethics virtues that have been identified by Pritchard and Jaska.

Pritchard and Jaska's list came about when they asked morally exemplary engineers to list the traits they would look for were they conducting a job search for hiring engineers for newly opening positions. (A certain degree of modesty or humility prevented those engineers interviewed from attributing these traits to themselves.) Now, think about the following questions. What traits do business leaders and morally exemplary engineers have in common? What traits lay out their differences? Why would engineers and business leaders have certain traits in common? What new skills do engineers have to learn in order to become successful business managers?

#### **Skills sought for good business leadership**

Petrick and Quinn go on to identify different types of leaders based on skill sets. There are four groupings or sets of skills listed on page 213 of their text.

- **Technical Skills.** These include skills in quantitative and qualitative methods. Rakesh Khurana in his book, *From Higher Aims to Hired Hands*, points out that much of business research is divided between methods and principles taken from sociology and those taken from economics. One important import from economics is what has been termed by many as "homo economicus," the view described above that human beings are rational self-interest maximizers and, therefore, incapable of altruistic actions or motives.
- **Interpersonal skills.** Quinn and Petrick are quite interesting here. Their list includes "emotional expressivity, sensitivity and control, social expressivity, political sensitivity, control and manipulation, affective communication, and persuasiveness." These strong social skills would not be as important for engineers and other professionals but are essential for business leaders, especially managers. Consider some of the interpersonal skills deployed using the ethics tests we have studied this semester. This would include role-taking and empathy deployed in the **reversibility** test, imaginative projection of experience as deployed by the **harm** test, and the ability to imagine and project a moral exemplar into a concrete situation, a skill deployed in the **publicity** test.

- **Conceptual skills.** These include “anticipation of changing trends and opportunities, diagnostic analysis of problems, integrative prognosis of ongoing improvement and/or problem resolution, proficiency in conceptualization of complex and ambiguous relationships, creativity in idea generation and articulation, and sound logical reasoning.” This seems to overlap considerably with the problem-solving framework that we have studied this semester: problem specification, solution generation, solving testing, and solution implementation.
- **Administrative skills** include “effective work organization, prioritized operational obligations, efficient and timely in-basket processing of information, rapid routine decision making, constant monitoring of performance, solid control of financial resources, and sharp attention to detail.” Assigning work tasks, for example, would draw heavily from non-linear, systems thinking. One would have to integrate such variables as areas of expertise, ability to get along with other members of the team, current and previous work assignments, expertise and how this expertise complements the backgrounds of the other members of the team.

### 8.3.2 Argument that Business Leadership is built on Moral Leadership

#### Argument that a bad human cannot be a good leader

- **Premise 1.** To argue that a bad person can be a good leader is to relegate leadership to effectiveness, i.e., a good leader is someone who gets things done, no matter what.
- **Premise 2:** But this separates means from ends and reduces leadership to devising means to pre-determined or pre-established ends.
- **Conclusion 1:** But this contradicts the lists presented above that leaders have vision, inspire others, and take responsibility for their actions. It also contradicts the idea that leaders envision ends as well as devise means.
- **Conclusion 2:** If an argument leads to a contradictory conclusion, then it must be rejected and its contradictory affirmed in its place. Hence, business leaders not only are efficient but they are also morally good.

#### 8.3.2.1 Separating Good Moral Characteristics from Good Leadership Characteristics

Now consider the following table. Colby and Damon in **Some Do Care** outline what they used as moral exemplar criteria for their identification and interview of the moral exemplars that are profiled in their book. They provide two lists, a longer preliminary list and a shorter, more refined list. The unrefined list is more suggestive even though it is a bit ambiguous. What do these moral exemplar criteria have to say about leadership in business? Again, do they suggest that good moral qualities can be separated absolutely from good leadership qualities? (303-304)

**Moral Exemplar Criteria and Discussion of Business Applicability**

Moral Exemplar Criteria from Colby and Damon	Comments on a possible redescription as business leader criteria
<i>continued on next page</i>	

"A sustained commitment to definable moral principles."	Business leaders could add to moral principles organizational values (vision, mission, values) and a commitment to general business disciplinary values like open competition, fair play, and orientation toward common good. A difficulty arises when moral principles come into conflict with an organization's self-defined interests.
A consistent tendency to act in accordance with these principles.	This argues that commitments are carefully and thoroughly integrated into the core self-system. For example, one exercises the moral value of loyalty toward one's company and the overall practice of business. But this loyalty is not automatically moral because it is (or may be) uncritical. This breaks down when there is a conflict between business and moral values.
A willingness to affirm (rather than deny or misrepresent) one's acts, and to overtly express the principles that constitute one's moral rationale for such acts.	This is a strong link between moral exemplars and business leaders. Several leadership lists discuss the importance for being responsive, accepting ownership or responsibility for one's acts, and acting out of respect for others, especially owners, coworkers, employees, and customers.
A willingness to risk personal well-being for the sake of one's moral principles.	This raises issues debated between agency theorists and stewardship, stakeholder, and alliance theorists. Economic theory denies the predictability of actions other than those based on self-interest. But this is debated and rejected by economists such as Akerlof and Shiller (Animal Spirits) and Sen (Rational Fools).
A capacity for crafting and projecting a moral vision including particularly the ability to generate innovative solutions to moral problems.	This module offers considerable evidence in the form of profiles that business leaders who are also moral exemplars can inspire and lead by projecting a moral as well as a business vision. See Krawcheck, Yunus, Segarra, and Fuerstein.
A talent for inspiring others to moral action(7,1)	Business leaders are certainly helped when they have the capability of motivating and inspiring; and this capability is inseparable from being exercised in a moral direction.
<i>continued on next page</i>	

A dedicated responsiveness to the lives of others.	An example of a culpably negligent business leadership activity is lack of responsiveness.
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**Table 8.4:** This table outlines moral exemplar criteria taken from Colby and Damon. This it comments on it from the business side to determine if good business leaders are also morally exemplary.

### 8.3.3 Introduction to Moral Exemplars

Through the activities of this module you will learn to balance cautionary tales in business and professional ethics with new stories about those who consistently act in a morally exemplary way. While cautionary tales teach us what to avoid, narratives from the lives of moral exemplars show us how to be good. A study of moral best practices in business and professional ethics shows that moral exemplars exhibit positive and learnable skills. This module, then, looks at moral exemplars in business and the professions, outlines their outstanding accomplishments, and helps you to unpack the strategies they use to overcome obstacles to doing good.

You will begin by identifying outstanding individuals in business and associated practices who have developed moral "best practices." Your task is look at these individuals, retell their stories, identify the skills that help them do good, and build a foundation for a more comprehensive study of virtue in occupational and professional ethics.

### 8.3.4 Moral Exemplar Terms

#### Moral Exemplar

- An individual who demonstrates outstanding moral conduct often in the face of difficult or demanding circumstances. (Beyond the "call of duty" Your first item here)
- Often moral exemplars perform actions that go beyond what is minimal, required, ordinary, or even extra-ordinary.
- Moral exemplars perform actions that are "above and beyond the call of duty."
- Most important, they perform these actions repeatedly across a career or even a lifetime. In some way, their exemplary conduct has become "second nature."

#### Supererogatory

- **"A supererogatory act is an act that is beyond the call of duty. It is something that is morally good to do but not obligatory. Examples of supererogatory acts are donating blood, volunteering on a rape crisis hotline, babysitting (without accepting recompense) a friend's two-year old triplets for the afternoon, or throwing oneself on a live hand grenade in order to save one's buddies' lives."** (Baron, 1997: 614)
- Baron's definition (found in the Encyclopedia of Business Ethics) captures how the supererogatory occupies a moral space well above that of the minimally decent or even the ordinary. Your second item here. Supererogatory actions are outstanding, extra-ordinary, and exemplary in both moral and practical senses.
- Urmsom, a moral philosopher, remarks how the supererogatory has been neglected (up to the mid-twentieth century) by moral philosophy, dominated as it was in the previous century by the debate between Utilitarianism and Deontology.
- Two quotations from Urmsom show this clearly: (1) **"But it does seem that these facts have been neglected in their general, systematic accounts of morality. It is indeed easy to see that on some of the best-known theories there is no room for such facts"** (Urmsom, 1958, p. 206). (2) **"[s]imple utilitarianism, Kantianism, and intuitionism, then, have no obvious theoretical niche for the saint and the hero"** (Urmsom, 1958: 207).

- Baron, M. (1997). "Supererogation", Blackwell Encyclopedic Dictionary of Business Ethics, Patricia H. Werhane and R. Edward Freeman, eds., New York: Blackwell: 614-7.
- Urmson, J.O. (1958). "Saints and Heroes." Essays in Moral Philosophy, A.I. Melden, ed., Seattle: University of Washington Press: 198-216.

### Moral Minimum

- Compare and distinguish the idea of the supererogatory with that of the moral minimum.
- The difference is between that which is morally exemplary versus that which is just over the threshold of wrongdoing.
- **"I suggest that moral minimums are best understood as negative standards, universally agreed upon "bottom lines" beyond which it is morally questionable to act. For example, it is almost always wrong to deliberately harm or contribute to harming another person or persons; to deliberately violate their rights to freedom, life, or property; to treat individuals or classes of individuals with disrespect; to compete or cooperate unfairly; not to honor promises or contract; or to be dishonest or deceitful. Whereas these moral minimums do not define goodness, fairness, or benefit, or define the positive content of rights, they set minimum guidelines for behavior that most people everywhere might agree on..."** (Werhane, 1999: 122).
- Werhane, P. (1999). Moral Imagination and Management Decision-Making, Oxford, UK: Oxford University Press.

### Moral Exemplar Criteria in Computing

1. Either a sustained commitment to moral ideals or ethical principles in computing that include a generalized respect for humanity or sustained evidence of moral virtue in the practice of computing.
2. A disposition to make computing decisions in accord with one's moral ideals or ethical principles, implying a consistency between one's actions and intentions and between the means and ends of one's actions
3. A willingness to risk one's self interest for the sake of one's moral values.
4. A tendency to be inspiring to other computer professional and thereby to move them to moral action
5. A sense of realistic humility about one's own importance relative to the world at large, implying a relative lack of concern for one's own ego.
6. Huff, C. and Barnard, L. (2009). "Good Computing: Moral Exemplars in the Computing Profession", IEEE Technology and Society Magazine: 47-54.

### Responders and Idealists

- This quotation from Blum provides a nice characterization of "moral responders."
- "the 'responder' moral exemplar does not, prior to confronting situations in which she manifests moral excellence, possess a set of moral principles which she has worked out explicitly, committed herself to, and attempted to guide her life by."
- "the responder responds to the situations she faces and to individuals in a 'morally excellent way.'"
- Blum, L. (1994). "Moral Exemplars: reflections on Schindler, the Trochmés, and others", Moral Perception and Particularity, Cambridge, Mass.: Cambridge University Press: 65-97.

### Idealists

- According to Blum (and Hailie), Magda Trochme is a responder while her husband, Andre Trochme is an idealist. Both perform morally exemplary and supererogatory actions but out of different motivations.
- "To be an idealist [one] must see these ideals as more than merely personal goals or a personal conception of the good. They must be formulated as general values, and regarded by the agent as having some kind of intrinsic worth or general validity.

- Blum, L. (1994). "Moral Exemplars: reflections on Schindler, the Trochmés, and others", *Moral Perception and Particularity*, Cambridge, Mass.: Cambridge University Press: 65-97.

### Moral Heroes and Moral Saints

- Moral heroes achieve their good and excellent goals only by making substantial sacrifices. The notion of self-sacrifice is the key distinguishing characteristic of this kind of exemplar.
- What distinguishes moral saints from other kinds of moral exemplar is the criterion of moral faultlessness; these exemplars achieve their excellences by means of conduct that is free from any moral flaw.
- Moral saints are often used to argue for the unity of virtues thesis, namely, that the virtues work together forming a system where each is necessary and mutually supports the others.

#### Crossing over saints and heroes with idealists and responders

	<b>Moral Heroes</b> (complete a good project at considerable risk to self)	<b>Moral Saints</b> (meet a higher standard of moral purity)
<b>Idealists</b> (Act on the basis of moral principle—duty for duty's sake)	Andre Trochme (acts stem from religious principles); Thomas More (according to Robert Bolt in <i>Man for All Seasons</i> ); Martin Luther King (See Letters from Birmingham Jail)	Thomas More (See Robert Bolt's characterization of More as a "saint of selfhood")
<b>Responders</b> (respond to need and moral salience present in current situation)	Magda Trochme (Responded to needs of refugees); Oscar Schindler (responded to imminent threat of Nazi persecution of his Jewish employees); Mantel's portrayal of Cromwell (Cromwell because of his childhood difficulties took in young men and trained them in business and politics)	Mother Teresa and Saint Francis

**Table 8.5:** This table crosses over saints and heroes with idealists and responders.

### 8.3.5 Exercise 1: Choose a moral exemplar

- Identify a moral exemplar and provide a narrative description of his or her life story.
- To get this process started, look at the list of moral exemplars provided in this module. The links in the upper left hand corner of this module will help you to explore their accomplishments in detail. Feel free to choose your own exemplar. Make sure you identify someone in the occupational and professional areas such as business and engineering. These areas have more than their share of exemplars, but they tend to escape publicity because their actions avoid publicity generating disasters rather than bring them about.

### 8.3.6 Moral Exemplars

- 1. William LeMesseur. LeMesseur designed the Citicorp Building in New York. When a student identified a critical design flaw in the building during a routine class exercise, LeMesseur responded, not

by shooting the messenger, but by developing an intricate and effective plan for correcting the problem before it issued in drastic real world consequences. Check out LeMesseur's profile at [onlineethics](#) and see how he turned a potential disaster into a good deed.

- 2. Fred Cuny, starting in 1969 with Biafra, carried out a series of increasingly effective interventions in international disasters. He brought effective methods to disaster relief such as engineering know-how, political savvy, good business sense, and aggressive advocacy. His timely interventions saved thousands of Kurdish refugees in the aftermath of the Persian Gulf War in 1991. He also helped design and implement an innovative water filtration system in Sarajevo during the Bosnia-Serb conflict in 1993. For more details, consult the biographical sketch at [onlineethics](#).
- 3. Roger Boisjoly worked on a team responsible for developing o-ring seals for fuel tanks used in the Challenger Shuttle. When his team noticed evidence of gas leaks he made an emergency presentation before officials of Morton Thiokol and NASA recommending postponing the launch scheduled for the next day. When decision makers refused to change the launch date, Boisjoly watched in horror the next day as the Challenger exploded seconds into its flight. Find out about the courageous stand Boisjoly took in the aftermath of the Challenger explosion by reading the biographical sketch at [onlineethics](#).
- 4. Muhammad Yunus won the Nobel Prize for Peace in 2006. His effort in setting up "micro-businesses" funded through "micro-lending" has completely changed the paradigm on how to extend business practices to individuals at the bottom of the pyramid. Learn about his strategies for creating micro-businesses and how those strategies have been extended throughout the world, including Latin America, by listening to an interview with him broadcast by the Online News Hour. (See link included in this module.)
- 5. Bill Gates has often been portrayed as a villain, especially during the anti-trust suit against Microsoft in the mid 1990's. Certainly his aggressive and often ruthless business practices need to be evaluated openly and critically. But recently Gates stopped participating in the day-to-day management of his company, Microsoft, and has set up a charitable foundation to oversee international good works projects. Click on the link included in this module to listen to and read an interview recently conducted with him and his wife, Melinda, on their charitable efforts.
- 6. Jeffrey Skilling, former CEO of Enron, can hardly be called a moral exemplar. Yet when Enron was at its peak, its CEO, Jeffrey Skilling, was considered among the most innovative, creative, and brilliant of contemporary corporate CEOs. View the documentary, *The Smartest Guys in the Room*, read the book of the same title, and learn about the configuration of character traits that led to Skilling's initial successes and ultimate failure. A link included in this module will lead you to an interview with Skilling conducted on March 28, 2001.
- Inez Austin worked to prevent contamination from nuclear wastes produced by a plutonium production facility. Visit [Online Ethics](#) by clicking on the link above to find out more about her heroic stand.
- Rachael Carson's book, *The Silent Spring*, was one of the key events inaugurating the environmental movement in the United States. For more on the content of her life and her own personal act of courage, visit the biographical profile at [Online Ethics](#). You can click on the Supplemental Link provided above.

### 8.3.7 Exercise Two: Moral Exemplar Profiles

- What are the positive and negative influences you can identify for your moral exemplar?
- What good deeds did your exemplar carry out?
- What obstacles did your moral exemplar face and how did he or she overcome them?
- What skills, attitudes, beliefs, and emotions helped to orient and motivate your moral exemplar.?

### 8.3.8 Exercise Three

Prepare a short dramatization of a key moment in the life of your group's moral exemplar.

### 8.3.9 Textbox: Two different Types of Moral Exemplar

- Studies carried out by Chuck Huff into moral exemplars in computing suggest that moral exemplars can operate as craftspersons or reformers. (Sometimes they can combine both these modes.)
- Craftspersons (1) draw on pre-existing values in computing, (2) focus on users or customers who have needs, (3) take on the role of providers of a service/product, (4) view barriers as inert obstacles or puzzles to be solved, and (5) believe they are effective in their role.
- Reformers (1) attempt to change organizations and their values, (2) take on the role of moral crusaders, (3) view barriers as active opposition, and (4) believe in the necessity of systemic reform
- These descriptions of moral exemplars have been taken from a presentation by Huff at the STS colloquium at the University of Virginia on October 2006. Huff's presentation can be found at the link provided in the upper left hand corner of this module.

#### Elements of a Life Story Interview

- Major Influences
- Peak and Nadir Experiences
- Challenges and Opportunities.
- Goals, Values, and Objectives
- Commentary: The life story interview collects the subject's life in narrative form. Those conducting to the interview along with those studying it are skilled in identifying different patterns and structures in the interview. (Identifying and classifying the patterns is called "coding".)
- Huff, Rogerson, and Barnard interviewed moral exemplars in computing in Europe and coded for the following: "social support and antagonism, the use of technical or social expertise, the description of harm to victims or need for reform, actions taken toward reform, designs undertaken for users or clients, effectiveness and ineffectiveness of action, and negative and positive emotion" (Huff and Barnard, 2009: 50).
- They identified two kinds of moral exemplars in computing: helpers (or craftspersons) and reformers.

#### Helpers and Reformers

- **Craftspersons** work to preserve existing values, see themselves as providers of a service, frame problems as overcoming barriers, and seek ethical ends (Huff and Barnard, 2009: 50).
- **Reformers** focus on social systems, see themselves as moral crusaders, work to change values, view individuals as victims of injustice, and take system reform as their goal (Huff and Barnard, 2009: 50).

#### Reformers and Helpers

Exemplar-Type	Dominant Value	Project	Defining-Characteristic Emotion
Reformers	Justice	Correcting systemic Injustice	anger and contempt serve as motives to unseal injustice.
<i>continued on next page</i>			



<b>Helpers Craftspersons</b>	<b>or</b>	Responsibility as responsiveness to rele- vance	Desire to alleviate suf- fering and solve prob- lems	Compassion and empa- thy serve as motives and modes of attunement.
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**Table 8.6:** This table compares reformers to helpers or craftspersons.

### 8.3.10 What Makes a Moral Exemplar? PRIMES Explained

#### General Comments on Exemplars

- Moral exemplars have succeeded in integrating moral and professional attitudes and beliefs into their core identity. Going against these considerations for moral exemplars is tantamount to acting against self. Acting in accordance with them becomes second nature.
- Moral exemplars often achieve their aims with the support of "support groups." In fact, moral exemplars are often particularly adept at drawing support from surrounding individuals, groups and communities. This goes against the notion that exemplars are isolated individuals who push against the current. (Not all exemplars need fit as heroes into Ayn Rand novels.)
- Moral exemplars often do not go through periods of intensive and prolonged deliberation in order to hit upon the correct action. If we want a literary example, we need to replace the tortured deliberations of a Hamlet with the quick and intuitive insight of an Esther Summerson. (Summerson is a character in Charles Dickens' novel, Bleak House. See both William Shakespeare and Charles Dickens for more examples of villains and exemplars.) Some have situated moral exemplars within virtue ethics. They have cultivated moral habits that allow them to do good as second nature. They have also found ways to integrate moral reasoning with emotion (as motive), perception (which helps them zero in on moral relevance), and skill (which helps implement moral value). In this sense, moral expertise functions much as athletic or technical expertise; all are difficult to acquire but once acquired lead to highly skilled actions performed almost effortlessly.

#### PRIMES

Primes stands for Personality, Integrating value into self-system, Moral Ecology, and Moral Skills Sets. These are the elements composing moral expertise that have been identified by Huff and Rogerson based on interviews they conducted with exemplars in the areas of computing.

#### Personality

- Moral exemplars exhibit different configurations of personality traits based on the big five. Locate the moral exemplar you have chosen in terms of the following five continuums (or continua):
- Neuroticism to Lack of Neuroticism (Stability?)
- Agreeableness to Disagreeableness
- Extraversion to Introversion
- Openness to Closedness
- Conscientiousness to Lack of Conscientiousness
- Examine your exemplar on each of these scales. In and of themselves, these qualities are neither good nor bad. They can be integrated to form bad characters or good characters. In many cases, moral exemplars stand out through how they have put their personality characteristics to "good use." (They have used them as vehicles or channels to excellence.)

#### Integrating Moral Value into Self-System

- As said above, moral exemplars stand out by the way in which (and the extent to which) they have integrated moral value into their self-system. Because of this, they are strongly motivated to do good and avoid doing bad. Both (doing good and refraining from doing bad) express who they are. If they slip into bad deeds, this motivational system pushes them to improve to avoid repeating bad deeds.

- One way of integrating moral value into self-system is by looking at stories and narratives of those who have displayed moral excellence. Many of the individuals portrayed above (Carson, Boisjoly, LeMesseur, Cuny, Austin, and Yunus) provide concrete models of outstanding moral careers.
- Literature also provides its models of moral exemplars. Charles Dickens paints especially powerful portraits of both moral heroes (Esther Summerson and "Little Dorritt") and villains (Heep and Skimpole).
- Other vehicles for integrating moral value centrally into the self-system lie in affiliations, relationships, and friendships. Aristotle shows the importance of good friendships in developing virtues. Moral exemplars most often can point to others who have served as mentors or strong positive influences. For example, Roger Boisjoly tells of how he once went to a senior colleague for advice on whether to sign off on a design that was less than optimal. His colleague's advice: would you be comfortable with your wife or child using a product based on this design?
- The ethicist, Bernard Williams, has argued forcefully for the importance of personal projects in establishing and maintaining integrity. Personal projects, roles, and life tasks all convey value; when these hold positive moral value and become central unifying factors in one's character, then they also serve to integrate moral value into the self system.
- Augusto Blasi, a well known moral psychologist, gives a particularly powerful account (backed by research) of the integration of moral value into self-system and its motivational effect.

### Moral Ecology

- Moral Ecologies: "The term moral ecology encourages us to consider the complex web of relationships and influences, the long persistence of some factors and the rapid evolution of others, the variations in strength and composition over time, the micro-ecologies that can exist within larger ones, and the multidirectional nature of causality in an ecology." From Huff et. al.
- Moral ecologies refer to social surrounds, that is, the different groups, organizations, and societies that surround us and to which we are continually responding.
- We interact with these social surrounds as organisms interact with their surrounding ecosystems. In fact, moral ecologies offer us roles (like ecological niches) and envelop us in complex organizational systems (the way ecosystems are composed of interacting and interrelated parts). We inhabit and act within several moral ecologies; these moral ecologies, themselves, interact. Finally, moral ecologies, like natural ecosystems, seek internal and external harmony and balance. Internally, it is important to coordinate different the constituent individuals and the roles they play. Externally, it is difficult but equally important to coordinate and balance the conflicting aims and activities of different moral ecologies.
- Moral ecologies shape who we are and what we do. This is not to say that they determine us. But they do channel and constrain us. For example, your parents have not determined who you are. But much of what you do responds to how you have experienced them; you agree with them, refuse to question their authority, disagree with them, and rebel against them. The range of possible responses is considerable but these are all shaped by what you experienced from your parents in the past.
- The moral ecologies module (see the link provided above) describes three different moral ecologies that are important in business: quality-, customer-, and finance-driven companies. (More "kinds" could be generated by combining these in different ways: for example, one could characterize a company as customer-driven but transforming into a quality-driven company.) Roles, strategies for dissent, assessment of blame and praise, and other modes of conduct are shaped and constrained by the overall character of the moral ecology.
- Moral ecologies, like selves, can also be characterized in terms of the "centrality" of moral value. Some support the expression of moral value or certain kinds of moral value (like loyalty) while undermining or suppressing the expression of others (like courage or autonomy).
- Finally, think in terms of how personality traits integrated around moral value interact with different types of moral ecology. If a moral ecology undermines virtuous conduct, what strategies are available for changing it? Or resisting it? If there are different kinds of moral exemplar, which pair best with

which moral ecology? (How would a helper or craftsperson prevail in a finance-driven moral ecology like those characterized by Robert Jackall in **Moral Mazes**?)

### Moral Skills Sets

- Moral expertise is not reducible to knowing what constitutes good conduct and doing your best to bring it about. Realizing good conduct, being an effective moral agent, bringing value into the work, all require skills in addition to a "good will." PRIMES studies have uncovered four skill sets that play a decisive role in the exercise of moral expertise.
- **Moral Imagination:** The ability to project into the standpoint of others and view the situation at hand through their lenses. Moral imagination achieves a balance between becoming lost in the perspectives of others and failing to leave one's own perspective. Adam Smith terms this balance "proportionality" which we can achieve in empathy when we feel with them but do not become lost in their feelings. Empathy consists of feeling with others but limiting the intensity of that feeling to what is proper and proportionate for moral judgment.
- **Moral Creativity:** Moral Creativity is close to moral imagination and, in fact, overlaps with it. But it centers in the ability to frame a situation in different ways. Patricia Werhane draws attention to a lack of moral creativity in the Ford Pinto case. Key Ford directors framed the problem with the gas tank from an economical perspective. Had they considered other framings they might have appreciated the callousness of refusing to recall Pintos because the costs of doing so (and retrofitting the gas tanks) were greater than the benefits (saving lives). They did not see the tragic implications of their comparison because they only looked at the economic aspects. Multiple framings open up new perspectives that make possible the design of non-obvious solutions.
- **Reasonableness:** Reasonableness balances openness to the views of others (one listens and impartially weighs their arguments and evidence) with commitment to moral values and other important goals. One is open but not to the extent of believing anything and failing to keep fundamental commitments. The Ethics of Team Work module (see link above) discusses strategies for reaching consensus that are employed by those with the skill set of reasonableness. These help avoid the pitfalls of group-based deliberation and action.
- **Perseverance:** Finally, perseverance is the "ability to plan moral action and continue on that course by responding to circumstances and obstacles while keeping ethical goals intact." Huff et. al.

### 8.3.11 Exercise: Two Portrayals of More and Cromwell

Watch the movie, **A Man for All Seasons**, which won the Oscar award for best picture in 1967. Robert Bolt, who wrote both the play the movie was based on and much of the screen play sets out to portray More as a "hero of selfhood" (Preface to A Man for All Seasons, Xii). As Bolt puts it: **"Thomas More, as I wrote about him, became for me a man with an adamant sense of own self. He knew where he began and left off, what area of himself he could yield to the encroachments of his enemies, and what to the encroachments of those he loved. {B}ut at length he was asked to retreat from that final area where he located his self. And there this supple, humorous, unassuming and sophisticated person set like metal, was overtaken by an absolutely primitive rigor, and could no more be budged than a cliff."**

Bolt's characterization of More follows closely the model of authenticity set forth by the existentialists, especially Camus, as he states in the Preface to his play. Here the human defines himself or herself through commitments undertaken. These projects are incorporated into the self-system to form the core of one's personality. Then integrity becomes the core value for the hero of selfhood. Integrity is spelled out in terms of how one is able to resist external forces, challenges, and temptations to act against one's core beliefs and to break up the coherence of these self-defining beliefs. More's challenge came in the form of an oath which required that he swear against his core beliefs and that he offer his own self as the guarantee of the truth of this oath. Bolt goes to great lengths not to portray More as a religious fanatic. More is portrayed as open,

inquiring, questioning, and flexible in all areas except that core in terms of which he has defined his own self. To go against this core would be to lose his very identity.

Thomas Cromwell is More's opponent in both Bolt's play, **A Man for All Seasons** and in Hilary Mantel's recent novels, **Wolf Hall** and **Bring Out the Bodies**. But here is where the resemblance ends. In Bolt's play, Cromwell is immoral and Machiavellian. He takes his ends as already given; he accepts them as actionable and even moral without examination and without question. Cromwell, in Bolt's play, restricts himself to figuring out the most effective and direct means to the ends handed down to him by his king (Henry VIII). Cromwell does not worry that his private conscience may be contrary to his public duties. But More does, at least in Bolt's account. In response to another "administrator," Cardinal Wolsey, More says the following: **"Well...I believe, when statesmen forsake their own private conscience for the sake of their public duties...they lead their country by a short route to chaos"** (MFAS 13). One can get lost in the meandering of means and policies if one does not remain fixed and focused on moral ends.

Mantel's recent novels reverse the relations between More and Cromwell. She writes explicitly and sympathetically from Cromwell's viewpoint adopting a style carefully crafted to transport the reader directly into Cromwell's perspective; the reader literally sees things through Cromwell's eyes. Cromwell is portrayed as a humanist who is plagued by the problem of "dirty hands." This is the supposedly realistic perception that in order to do good one must, in the complicated and imperfect world, do harm. The Machiavellian calculation may be necessary if those intending good are to do good in this imperfect world. Cromwell is aid and advisor to Henry VIII who is, in many ways, a tyrant. Cromwell works to do Henry's will but also to blunt the force of its harmful consequences on others, especially the "common human." (This is the ordinary human who, up to this point, has been left out of the scope of moral consideration.) So Mantel portrays Cromwell as good but also as human and less than perfect; he does his best in a difficult and imperfect world.

Cromwell has not become Mantel's flawed moral exemplar because he softens Henry's harsh policies. On the other hand, Thomas More, Bolt's hero, becomes a religious fanatic under Mantel's pen who refers to opponents in harsh, scatological language and who also tortures those whose religious views differ from his.

There are obviously different interpretations of history at play in the different portrayals of Bolt and Mantel. But more importantly, both seem to have different views of what is morally exemplary. Bolt's More defines himself in terms of core beliefs and commitments and then remains true to these even in the face of overwhelming external challenge. His claim to being a moral exemplar is based on his commitments and his giving up his life to remain true to these. Mantel's Cromwell is a bit more complicated. He is less committed to principle and more to compromise, to integrating differing and contending individuals and their positions, and to making the world a better place by gradually humanizing government and business.

### Collision of Different Types of Moral Exemplar

	Hilary Mantel–Wolf Hall	Robert Bolt–A Man for All Seasons
<b>Thomas More</b>	Mantel portrays More as a religious fanatic. His refusal to respect those who disagree with him and his use of torture to convert them to his own religious views betray, for Mantel, his own unacknowledged self-doubts.	Bolt portrays More as a saint of selfhood. More’s religious beliefs penetrate to his core self and arise out of a constellation of values, principles, and commitments that define his identity. More holds strongly to these identity-conferring beliefs and keeps them in-tact even in the face of extreme pressure to deny them.
<b>Thomas Cromwell</b>	Mantel provides an unflinching yet humanistic portrayal of Cromwell. In order to do good in a corrupt political environment, Cromwell makes considerable concessions to expediency. But his overall aim is to humanize England through the personal influence he exercises on its king and through the civilizing influence of international business.	Bolt sees Cromwell as Machiavellian. We see Cromwell through More’s eyes as one who will sacrifice basic religious and moral truths for short-term political gain. Cromwell will undertake a course of action with double effects if the good consequences outweigh the bad. However, once Cromwell sacrifices principle and commitment, he loses his moral compass and sense of identity.

**Table 8.7:** This table shows how Robert Bolt and Hilary Mantel provide radically different accounts of the conflict of More and Cromwell. For Mantel, Cromwell is a moral exemplar and More a religious fanatic. For Bolt, More is a saint of self-hood while Cromwell is a Machiavellian villain.

### 8.3.12 Presentation on Moral Exemplars

[MEDIA OBJECT]<sup>8</sup>

### 8.3.13 Bibliography

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<sup>8</sup>This media object is a downloadable file. Please view or download it at  
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## Index of Keywords and Terms

**Keywords** are listed by the section with that keyword (page numbers are in parentheses). Keywords do not necessarily appear in the text of the page. They are merely associated with that section. *Ex.* apples, § 1.1 (1) **Terms** are referenced by the page they appear on. *Ex.* apples, 1

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 autonomy, § 7.4(256), § 7.6(273)
- B** business, § 2.1(9), § 2.4(26), § 3.5(79),  
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- C** Capabilities, § 6.1(179)  
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- D** Decision, § 6.3(199)  
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- W** Work Teams, § 3.1(45)



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**The Environments of the Organization**

This collection pulls together the modules used at the University of Puerto Rico at Mayaguez in the College of Business Administration required course, The Environment of the Organization, ADMI 4016. It's contents will vary depending on the orientation of the course.

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