Updates

8/15/14: First draft completed. Added to ANGEL.
8/26/14: Addition of Chapter (Elements of Arguments).
8/28/14: Improvements to Syllabus. Update to due date of \LaTeX\ Assignment
8/29/14: Improvements to Chapter 2
9/1/14: Addition to Chapter on Moral Solutions
9/5/14: Added material to Appendix (Critical correction to explanation of what package to use when inserting images.
10/2/14: Updated to Virtue ethics and introduction
10/22/14: First draft of chapter 6 on animals complete. Wrote macros for definition environment, objection environment (with counters), example environment (fix, looks hideous), reply environment, discussion question (in margins). Altered macro for “Further Thoughts” (student submission) so that the picture is larger, but probably need to one that temporarily suspends page geometry so that images can be seen easier.
12/1/14: Use of \pgfplots for diagrams.
12/5/14: First draft complete.
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Introduction

The contents of this document are lecture notes from an introductory philosophy of environment course I taught in the fall of 2014. The bulk of the notes follow Christopher Belshaw’s *Environmental Philosophy: Reason, Nature and Human Concern* (McGill-Queen’s University Press, 2001), but they also draw on Lori Gruen’s *Ethics and Animals: An Introduction* (Cambridge University Press, 2011), lecture notes I’ve used to teach other courses, my own thoughts, and ideas that developed out of classroom discussion with students. In general, I try to avoid simply summarizing what Belshaw says and instead try to use what he says as a prompt for putting things in a way that students with no prior experience in philosophy would understand.

In addition to Belshaw’s book and my own contribution, this document contains the work (both written and visual) submitted by my students. After learning how to use \LaTeX the students were asked to pick some topic in the texts we read or discussed in class and (i) summarize that topic and (ii) expand upon it in some way. These contributions are marked as “Further Thoughts” and the names of student contributors are provided.

If you are an instructor and would like to access to this document in .tex format as well as quizzes and exams that are based on this document, don’t hesitate to email me.
Chapter 0

Syllabus

0.1 Course Information

Course Information: PHIL013.001, Fall 2014, MWF 2.30–3.20PM
Course Location: 307 Boucke Bldg

Instructor: David W. Agler, PhD
Email: dwa132 @ psu.edu
Website: www.davidagler.com
Office Hours and Location: Before & After Class (or by appointment in 213 Sparks)
Office Mailbox: 232 Sparks

0.2 Course Description

Concern for the environment plays a pervasive role in in the decisions we make and how we think about ourselves in relation to each other and in the world. We enact laws to regulate pollution, we know (or are) people who abstain from eating animals, and most of us have (in some way or another) recognize living things and environments as deserving respect or even reverence. Gaining a clearer, more articulated, and philosophical understanding of what, if any, responsibilities we have to the environment is the primary topic of this course.

Unit 1 investigates a number of basic questions about environmental philosophy: what is the environment? what are some of the central environmental problems? how can philosophy help to solve these environmental problems? In discussing these questions, we will read Christopher Belshaw’s Environmental Philosophy: Reason, Nature, and Human Concern (McGill-Queen’s University Press 2001).

Unit 2 turns from these broad introductory questions to several questions about what makes us different from animals and what moral responsibilities we have to animals. We will explore answers to questions like: what, if
anything, distinguishes us from animals? is it morally permissible to eat animals and is vegetarianism ethically required? should industrial animal production be stopped? what moral problems do the existence of zoos present? is it morally permissible to keep animals in captivity, either in zoos or as pets? In discussing these questions, we will read Lori Green’s *Ethics and Animals: An Introduction* (Cambridge, 2011).

**Unit 3** investigates what ethical responsibilities we have to living and nature things more broadly, e.g. plants, ecosystems, rivers, forests. We will explore explanation for why it might be morally wrong to destroy natural objects, even when doing so does not harm human beings. In addition, we’ll examine why a solution to environmental problems might require a radically different perspective on who we are as human beings.

Here are a list of some of the questions we will explore:

1. what is the environment?
2. what is an environmental problem and what kinds of environmental problems are there?
3. what role can philosophizing play in solving and thinking about environmental problems?
4. what are the primary causes of environmental problems?
5. what other methods are available in trying to solve environmental problems?
6. what role does moral theory play in thinking about and trying to solve environmental problems?
7. what duties do we have to animals?
8. what duties do we have to non-human and non-animal living things?
9. how do we make sense of the value we ascribe to living things?

**0.3 Course Overview**

**0.3.1 Required Texts**


**0.3.2 Course Objectives**

**Philosophy of Nature/Environment Content:** Students will learn several key ideas in the philosophy of nature/environment, e.g. what is an environment, what sort of relationship do humans have to the environment(s), what sorts of responsibilities do we have to conserve, to preserve, and to prevent pollution, what responsibilities do we have to animals, and what types of responsibilities do we have to other living (non-animal) things?
Critical Reading and Reasoning Skills: Students will read texts in the philosophy of nature critically by assessing the quality of arguments in terms of their validity, strength, cogency, soundness, etc.

Dialogue and Oral Expression: As some issues in the philosophy of nature tend to be controversial and emotionally charged, students will develop their ability to engage in respectful conversation with others. Students will thus be encouraged to formulate their views on philosophy of nature issues by providing reasons for their position and criticizing alternatives by objecting to the arguments supporting these positions.

Articulation and Writing Skills: Students will develop the capacity to respond to various arguments concerning the philosophy of nature in a rigorous and articulate way. They will learn how to summarize issues in the philosophy of nature in a succinct, charitable, and illustrative way and learn how to critical respond to arguments by raising objections and supporting their views with reasons.

0.4 Course Policies

0.4.1 Academic Misconduct

The general principles and policy relating to cheating and plagiarism, which are enforced in this class, can be found in the Penn State policy on academic misconduct. Academic Integrity: Academic dishonesty encompasses a wide range of activities, whether intentional or unintentional, that includes, but is not limited to: all forms of fraud, plagiarism, and any failure to cite explicitly all materials and sources used in one’s work. Sanctions for these activities include, but are not limited to, failure in a course, removal from the degree program, failure in a course with an explanation in the permanent transcript of the cause for failure, suspension, and expulsion. If you are unclear about whether you or someone you know is engaging in academic misconduct, read the following: University Statement on Academic Integrity. For more information, see PSU Academic Integrity Policy, PSU Plagiarism Quiz, and PSU Plagiarism Links.

Let’s take a more light-hearted look at plagiarism. See Video: Cheating in College

0.4.2 Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
<th>Grade</th>
<th>Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>A</td>
<td>91–100</td>
<td>B</td>
<td>89.0–89.9</td>
<td>C</td>
<td>79.0–79.9</td>
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<tr>
<td>A–</td>
<td>90.0–90.9</td>
<td>B+</td>
<td>81.0–88.9</td>
<td>C+</td>
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<tr>
<td>B</td>
<td>80–80.9</td>
<td>C</td>
<td>60.0–69.9</td>
<td>D</td>
<td>0–59.9</td>
</tr>
</tbody>
</table>

Grades will be rounded up from the second decimal point, e.g. 90.95 rounds up to 91.0 while 90.94 rounds down to 90.90. In the event that eLION does not allow for a particular grade (e.g. D+), you will simply be given the letter grade
(e.g. if you have a D+ then you will receive a D, and if you have a C–, you will receive a C).

0.4.3 Late Work

If you are planning on submitting an assignment late, you will need to clear this with the instructor before the day and time of the test. If the instructor is not informed that you will be taking the test late, a grade reduction of one letter grade is incurred for every day the test is late. So if the due date is Tuesday at 3PM and you email me on Tuesday at 3.01PM you will lose a letter grade. You will not lose an additional letter grade until 3.01PM the next day (i.e. Wednesday).

However, note that you may not make-up a pop-quiz. For more on pop quizzes, see subsection 0.5.3.

0.4.4 Accessibility and Additional Guidance

Penn State welcomes students with disabilities into the University’s educational programs. If you have a disability-related need for reasonable academic adjustments in this course, contact the Office for Disability Services (ODS) at 814-863-1807 (V/TTY). For further information regarding ODS, please visit the Office for Disability Services Website.

In order to receive consideration for course accommodations, you must contact ODS and provide documentation (see the documentation guidelines at PSU Documentation Guidelines). If the documentation supports the need for academic adjustments, ODS will provide a letter identifying appropriate academic adjustments. Please share this letter and discuss the adjustments with your instructor as early in the course as possible. You must contact ODS and request academic adjustment letters at the beginning of each semester.

If you are in need of psychological counselling, please do not hesitate to contact Penn State’s Counselling & Psychological Services (phone: 814-863-0395). For any problem related to your studies, university policies and procedures, do not hesitate to seek the help of the Student Affairs Services, your Academic Advisor, or arrange a meeting with your instructor who will help you obtain assistance through one of the above, or another, agency.

0.4.5 ANGEL and Email Communication

Please check the webpage on the ANGEL website regularly. An online version of the syllabus is available there, and you will be notified of any cancellation of a course meeting there. If you need to contact me, send a well-constructed email to my email address with an appropriate subject line (e.g. P120 Question) and with an appropriate address (e.g. “Dear David”). Failure to do either, or emailing me with multiple links attached (“check this youtube link”) will result in your instructor deleting your email. Students are responsible for activity on their computer accounts so only send emails pertinent to the course.
0.4.6 Drop Procedures & Incompletes

Students who simply stop attending class, for whatever reason, without officially withdrawing from the course, will receive the grade of F. If you expect a refund, be aware that the date the withdrawal form is processed by Penn State registrar’s office determines the amount of refund. Consult the Register site for drop procedures. Consult the Handbook for taking an Incomplete (D/F).

0.4.7 Classroom Environment

A number of factors figure into creating a healthy classroom environment. In order to facilitate such an environment, I ask you to obey the following:

1. the use of cell phones in any capacity is prohibited (please turn ringers and buzzers off, no text-messaging during class),
2. please do not begin to “pack up” your belongings before your instructor has explicitly dismissed you,
3. please come to class rested, sleeping in class is strictly prohibited,
4. please do not do other work in class. If you have an important exam in the next class, go somewhere where you can study for it.

If you are incapable of performing (1)–(4) or are disruptive in class, you will kindly be asked to leave the classroom.

0.5 Course Work

<table>
<thead>
<tr>
<th>ASSIGNMENT</th>
<th>#</th>
<th>pts</th>
<th>%</th>
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<td>0</td>
<td>0</td>
<td>plays a role in rounding</td>
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<td>LaTeX Assignment</td>
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<td>10</td>
<td>10</td>
<td></td>
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<td>Pop Quizzes</td>
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<td>3</td>
<td>20</td>
<td>lowest grade dropped</td>
</tr>
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<td>35</td>
<td></td>
</tr>
<tr>
<td>Exams</td>
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<td>100</td>
<td>35</td>
<td></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>100</td>
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</tbody>
</table>

Table 1. Grade Weight Per Assignment

0.5.1 Attendance & Participation

The attendance and participation portion of your grade is determined through a combination of subjective and quantitative components.

**Attendance**: is documented through the use of “Attendance Sheets”, which are periodically distributed throughout the semester.

**Classroom participation**: is assessed by using a variety of factors, including (but not limited to): the quality of your questions and answers,
respectful dialogue with your classmates and instructor, your willingness
to participate in class exercises, etc.

In the case of **borderline grades** (A-/B+, B+/B etc.) there can be fine tuning
based on your participation. Only excellent participation (both in the classroom)
and attendance throughout the semester can raise your grade. Your grade can
be raised (at most) one percentage point (e.g. 79 to 80 not 78 to 80).

### 0.5.2 \LaTeX{} Assignment

This course is designed around one super document that will be updated con-
tinuously throughout the course. That document contains the syllabus, course
handouts, student-submitted writing assignments and pictures, and study guides.
That document is written in plain text but prepared with a typesetting system
called \LaTeX{}. You will be required to submit your writing assignments using
\LaTeX{} and that work may be added to the super document.\footnote{For why I am having you use \LaTeX{} in this course, see section A.1.}

The \LaTeX{} assignment aims to prepare you to learn the technical skills needed
to submit the three writing assignments for the course.

**Step 1:** Get \LaTeX{}. There are two ways to get \LaTeX{}. First, you can create use
a text editor and and download a \LaTeX{} or \TeX{} typesetting software (the
former is on every computer (e.g. you can use Notepad) and the latter you
will have to download, for free).

Another way (and this is the way I strongly recommend) is to use a
cloud-based application. I recommend ShareLaTeX.\footnote{See https://www.sharelatex.com. ShareLaTeX is a cloud-based \LaTeX{} preparation application and is completely free. It also contains a number of wonderful tutorials to help you learn \LaTeX{}}

**Step 2:** Create a document using \LaTeX{} that includes your name, the date, a
short message to me (e.g. what’s your major, what are your career goals,
or anything that you think would be interesting), and a picture with a
caption. For details on how to do this, see section A.2 and tutorials at
ShareLaTeX Tutorials.

**Step 3:** Compile the document and save the PDF.

**Step 4:** Click the MENU button (upper right) and download the SOURCE
by clicking the SOURCE button. It will download as a .zip file.

**Step 5:** Upload both the PDF and the source (.zip) file to the \LaTeX{} assignment
DropBox in ANGEL.

### 0.5.3 Pop Quizzes

**Eight** pop quizzes will be distributed throughout the semester.

- Each pop quiz will consist of three questions (multiple-choice, T/F, or
  very-short answer).
• Full credit (2pts) will be awarded provided you answer two of the three questions correctly.
• The questions are drawn from the reading for that day.
• While you may not “make-up” pop quizzes, your lowest pop quiz will be dropped (except if you have a written excuse, e.g. doctor’s note).
• If a student is late to class, the student is free to take the exam until the point I begin collecting them.

0.5.4 Writing & Picture Assignment

This assignment assumes that you have already completed the \LaTeX assignment (subsection 0.5.2) as it requires you to submit all of your work using \LaTeX. You will use that assignment as a partial template for completing this one.

This assignment requires three components: a media component, a written component, and an assessment component. All of the components will be submitted to ANGEL as a single .zip file (your entire project (source code and files)) and PDF (the compiled assignment).

Media Component: The media (picture) component can be any original photograph or picture.

Written Component The written component consists of text where you explain, clarify, or expound upon some argument or concept discussed in the lessons or in the text.

Assessment Component The assessment component is a question that a moderately intelligent person would be able to answer after interacting with your written and media components.

The media component of the assignment is the same for each unit. It requires that you produce an original photograph, drawing, or picture, and then include some metadata about it. In choosing your media item, you want to pick something that is relevant to the issue you are planning on writing about and something that isn’t overly personal to you. It should be a picture that is relevant to a reader who knows nothing about you (see Table 2 for details about what you should put in your picture’s caption).

<table>
<thead>
<tr>
<th>Media Component Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A multimedia object created by you (submitted as .jpg or .png).</td>
</tr>
<tr>
<td>2 A caption that includes your Name, the Title of your multimedia object, and a Short Description of multimedia object (data about your object, e.g. if it was a photograph, where did you take the photograph, when did you take it, are there any resources (e.g., links) that would be helpful).</td>
</tr>
</tbody>
</table>

Table 2. Media Component Requirements

The written component of the assignment— which varies slightly across the three units— requires you to articulate some key argument or concept found
in the reading and to further elaborate on this argument or concept with your picture. For more on this, see Table 3.

### Written Component Requirements

#### Unit 1
A .txt file that includes (i) the lesson # and section # to which your media and written components apply, (ii), the full citation and pages numbers in the text to which your media and written components apply, (iii) a 300-word essay where you: (iii.a) introduce a single argument or concept discussed in the readings and the lessons (you will need to present the argument and give a clear explanation of each of the premises), (iii.b) further clarify this argument or concept with an example of your own, (iii.c), explain how your media component bears on this argument or concept, e.g. helps explain one of the premises.

#### Unit 2
This assessment is identical to Unit 1 except: (i) your written component should be 400 words, (ii) you should offer a possible criticism of your explanation of an argument or concept.

#### Unit 3
This assessment is identical to Unit 1 except (i) your written component should be 500 words, (ii) you should offer a possible criticism of your explanation of an argument or concept, and (iii) you should respond to this criticism by explaining why the objection is misplaced, mistaken, or relies on a false assumption.

Table 3. Written Component Requirements

Once you’ve completed the written and media components of this assignment, the assessment component of the assignment—which remains the same across the three units—requires you to create a question (one-word answer, essay, or multiple-choice question) that an individual who read your written component and viewed your picture would be able to answer. In addition, you should provide feedback for those who might have answered your question incorrectly. Ideally, your question should be moderately challenging, that is, requiring a close read and examination of your written and media components. (NOTE: You won’t be required to know any special \LaTeX as I will put them in a special environment). Table 4 provides a template for a sample multiple-choice question.

### Exams

There will be three exams in this course. The format of each of exam will consist of multiple-choice / true-false questions with some short answer questions.

These exams will cover:
1. basic content found in the readings and lessons
2. higher-level content discussed in class
3. contributed student content added to lessons from blog (picture & writing) assignments

Here are a few tips for preparing for exams:
Assessment Component Requirements

1. A multiple-choice question containing at least four choices A, B, C, D (as well as the indicated correct answer) that could be answered by reading the written component and viewing the media component of your submission.
2. Please use the following format (bolding not necessary):
   **Q:** Each question should start with ‘Q:’ or be successively numbered.
   **A.** If there are choices, the first choice should start with ‘A.’.
   **B.** Each successive choice should start with the next letter and a period.
   **C.** Each choice should be on a single line, but it is OK if it is longer than will fit in the text area and it wraps on its own.
   **D.** You should include at least four options, but make sure to end each answer with a period.

**ANSWER:** B

**FEEDBACK:** Here is where you provide feedback for someone who got the answer incorrect.

**Table 4. Assessment Component Requirements**

1. Take good notes. While I distribute a lot of written material, these materials are not exhaustive and so you should take good notes about the lecture and the reading.
2. Frequently review this document as it is updated regularly.
3. Attend the review session. During the day of the review session, I will (i) talk about the format of the exam and (ii) point out some blog submissions that I have added to the lesson content.

0.5.6 Extra Credit

There are several extra credit assignments available in this course. Details concerning each are provided below. Each assignment is due before the due date of the last Writing and Media Assignment (unless otherwise mentioned).

**Local Sites:** You can receive **1 extra point** added to your Writing and Media Assignment if your media component involves any of the following Centre County locations:

1. The Bellefonte Rail Trail
2. Any Park in Centre County ([List of Parks in Centre County](#))
3. Millbrook Marsh Nature Center

**PSU Club Presentation:** You can receive **2 extra points** added to an exam provided you (i) research a Penn State club or group whose principal focus is on some environmental issue, (ii) attend a meeting of this club, (iii) give a short, 1-2 minute announcement to the class about this club detailing what their mission appears to be, when they meet, how what they do relates to this course, etc, and (iv) distribute a flyer to the class that summarizes your informational talk.
If you plan on completing the PSU Club Presentation, you must notify me at least two weeks before the final class to schedule a time to present.

**Diagrams with TikZ or Pgfplots:** You can receive up to 5 extra points added to a Writing and Media Assignment if you summarize some argument, concepts, or set of arguments in the Master Document with a diagram that you created using TikZ or Pgfplots. TikZ is a package for \LaTeX{} that allows for drawing, while Pgfplots is a package based on TikZ that allows for drawing graphs. NOTE: You cannot submit a diagram for which there already exists a diagram. For examples, see Figure 1, Figure 5.5, Figure 6.18, Figure 6.19, Figure 6.6. Your submission will be graded on the accuracy and visual quality of your diagram.

```latex
\begin{tikzpicture}
    \node[draw, fill=gray!30] (DutyPlants) at (-1,3) {Duty toward Plants?};
    \node[draw, fill=green!30] (DD) at (0,-2) {Direct Duties?};
    \draw[->, dashed, thick, shorten >=1 pt] (DutyPlants) to[out=0, in=180] (DD);
\end{tikzpicture}
```

**Figure 1.** An Example of a Diagram Made Using TikZ

For more on how to create diagrams or figures using TikZ, see https://www.sharelatex.com/learn/TikZ_package. For more on how to create diagrams using Pgfplots, see https://www.sharelatex.com/learn/Pgfplots_package. For more on both TikZ and Pgf, see http://mirror.utexas.edu/ctan/graphics/pgf/base/doc/pgfmanual.pdf.

**Practical Solutions to Environmental Problems:** You can receive up to 5 extra points added to a Writing and Media Assignment if you (i) research some way that the everyday person can practically solve an environmental problem, (ii) write a short, one-page proposal describing the environmental problem, the practical problem, and arguing why everyone ought to follow your proposed solution (you will need to submit this proposal to me), (iii) give a short, 1-3 minute announcement to the class where you briefly explain the environmental problem, your practical solution, and why everyone ought to follow your proposed solution. Your submission will be graded on the perspicuity with which you describe the environmental problem, the originality of your practical solution, and the persuasiveness of your argument for its adoption.
## 0.6 Course Schedule

**WA:** Writing Assignment  
**EP:** Environmental Philosophy  
**EA:** Ethics and Animals

### Table 5. UNIT 1, ENVIRONMENTAL ETHICS: THE BASICS

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>READINGS</th>
<th>ASSIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/25</td>
<td>Syllabus &amp; Getting to Know You Exercise</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>27</td>
<td>Elements of Logic &amp; \LaTeX Assignment</td>
<td>None</td>
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<tr>
<td>29</td>
<td>Environmental Problems, I</td>
<td>EP 1-8</td>
<td></td>
</tr>
<tr>
<td>9/1</td>
<td>NO CLASS</td>
<td>NO CLASS</td>
<td></td>
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<tr>
<td>3</td>
<td>Environmental Problems, II</td>
<td>EP 8-15</td>
<td></td>
</tr>
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<td>5</td>
<td>Environmental Problems, III</td>
<td>EP 15-19</td>
<td></td>
</tr>
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<td>8</td>
<td>Environmental Problems, III</td>
<td>EP 15-19</td>
<td>\LaTeX Due</td>
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<td>10</td>
<td>Causes of Environmental Problems, I</td>
<td>EP 23-30</td>
<td></td>
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<tr>
<td>12</td>
<td>Causes of Environmental Problems, II</td>
<td>EP 30-37, skim 32-34</td>
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<tr>
<td>15</td>
<td>Solutions to Problems: Skepticism, Subjectivism, &amp; Law</td>
<td>EP 39-41</td>
<td></td>
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<tr>
<td>17</td>
<td>Solutions to Problems: Voting</td>
<td>EP 39-50</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Solutions to Problems: Market Solutions</td>
<td>EP 50-62</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Solutions to Problems: Consequentialism, I</td>
<td>EP 63-65</td>
<td></td>
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<td>24</td>
<td>Solutions to Problems: Consequentialism, II</td>
<td>EP 65-70</td>
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<td>29</td>
<td>Solutions to Problems: Consequentialism, III</td>
<td>EP 70-76</td>
<td></td>
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<tr>
<td>10/1</td>
<td>Solutions to Problems: Rights</td>
<td>EP 76-84</td>
<td>WA</td>
</tr>
<tr>
<td>10/3</td>
<td>Solutions to Problems: Virtue Theory</td>
<td>EP 84-92</td>
<td></td>
</tr>
<tr>
<td>10/6</td>
<td><strong>WA</strong> Due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/8</td>
<td>Review Day</td>
<td>Review Day</td>
<td>Review Day</td>
</tr>
<tr>
<td>10/10</td>
<td>Exam</td>
<td>Exam</td>
<td>Exam</td>
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</tbody>
</table>

### Table 6. UNIT 2, ANIMALS

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>READINGS</th>
<th>ASSIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/13</td>
<td>Why Animals Matter</td>
<td>EA1-25</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Who is Considerable?</td>
<td>EA25-33</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Consequentialism, Rights, and Animals</td>
<td>EP93-102</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Skepticism about the Worth of Animals</td>
<td>EP104-110</td>
<td></td>
</tr>
<tr>
<td>10/22</td>
<td>Liberation and Welfare</td>
<td>EP111-119</td>
<td></td>
</tr>
<tr>
<td>10/24</td>
<td>Eating Animals</td>
<td>EA76-86</td>
<td></td>
</tr>
<tr>
<td>10/27</td>
<td>Arguments Against Factory Farms</td>
<td>EA86-92, 92-104</td>
<td></td>
</tr>
<tr>
<td>10/31</td>
<td><strong>WA</strong> Due</td>
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<tr>
<td>11/3</td>
<td>Review Day</td>
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<td>11/5</td>
<td>Exam 2</td>
<td>Exam 2</td>
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</tr>
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</table>

### Table 7. UNIT 3, LIFE, RIVERS, SPECIES, LAND, & DEEP ECOLOGY

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>READINGS</th>
<th>ASSIGNMENT</th>
</tr>
</thead>
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<tr>
<td>11/7</td>
<td>Life, I</td>
<td>EP121-129</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Life, II</td>
<td>EP129-138</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Life, III</td>
<td>EP139-146</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Rivers</td>
<td>EP147-153</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Species</td>
<td>EP153-161</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Species, II</td>
<td>EP161-169</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Land</td>
<td>EP169-178</td>
<td></td>
</tr>
<tr>
<td>24-28</td>
<td>NO CLASSES</td>
<td>NO CLASSES</td>
<td>NO CLASSES</td>
</tr>
<tr>
<td>12/1</td>
<td>For and Against People</td>
<td>EP253-261</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>People and Value</td>
<td>EP261-264</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Future Generations</td>
<td>EP265-275</td>
<td><strong>WA</strong></td>
</tr>
<tr>
<td>8</td>
<td><strong>WA</strong> Due</td>
<td></td>
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<td>Review Day</td>
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</tr>
<tr>
<td>12</td>
<td>Exam 3</td>
<td>Exam 3</td>
<td>Exam 3</td>
</tr>
<tr>
<td>15</td>
<td>Exam 3, (440PM-530PM)</td>
<td>Exam 3</td>
<td>Exam 3</td>
</tr>
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Chapter 1

Elements of Arguments

Presenting and criticizing arguments plays a large role in philosophy. An argument is a set of propositions (sentences that can be true or false) where one subset of propositions (called the premises) are given in support of another proposition (called the conclusion). Intuitively, we can think of arguments as a set of reasons (or evidence) given in favor of some thesis.

Arguments are criticized by citing objections. Objections are some consideration (or reason) against the acceptance of the conclusion, either because the premises are false or because even if the premises are true, they don’t support the conclusion.

This course won’t require that we dive deeply into questions like “what is an argument?” or “what are the elements of an argument?” But we do need a compact way to present arguments and a general understanding of how to criticize them.

Let’s begin with an example.

| P1 | All pollution is caused by hippies. |
| P2 | John is a hippie. |
| C  | Therefore, John causes pollution |

Table 1.1. Argument for Hippies Causing Pollution

The argument in Table 1.1 contains two propositions (sentences) called the “premises” that support a third proposition (sentence) called the “conclusion”. We will abbreviate the premises using P and an integer (e.g. P1 or P1 and C) to indicate the conclusion.

We can criticize any argument in one of two ways.

**Option 1:** Reject at Least One of the Premises

**Option 2:** Argue that the Conclusion Does Not Follow from the Premises.

The argument in Table 1.1 can be criticized by arguing that at least one of the premises is false. For example,

**O1:** It is false that all pollution is caused by hippies. Why just the other day I was drinking an energy drink and threw it in the street (thereby polluting) and I am not a hippie.

We will use O and an integer O1 or O1 to abbreviate the term “Objection”.

The second way to criticize an argument is to argue that even if the premises were true, the conclusion does not follow. This mode of criticism is independent of whether the premises of the argument are in true or false. It says, instead, even if we assume that the premises are true, the conclusion does not follow. To get a clearer picture on this second type of criticism, it is necessary to distinguish between two different kinds of arguments: deductively valid arguments and inductively strong arguments.

1.1 Deductively Valid Arguments

Some arguments are purported to be deductively valid. An argument is deductively valid if and only if it is impossible for the premises to be true and the conclusion false. That is, an argument is deductively valid if and only if it must be the case that on the assumption that the premises are true (not saying they are), the conclusion is also true.

If someone says that a given argument is “deductively valid”, what they express is that there is an impossible state of affairs. Namely, what they are expressing is that there is NO WAY the premises can be true and the conclusion false. So, if the premises are true, we can be confident that the conclusion is also true.

Table 1.2. A Deductively Valid Argument is One Where

<table>
<thead>
<tr>
<th>Premises</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusion</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>Possible</td>
<td>Impossible</td>
<td>Possible</td>
</tr>
</tbody>
</table>

Given that in a deductively valid argument it is impossible for the premises to be true and conclusion false, deductively valid arguments are truth preserving. That is, if an argument is deductively valid, then it is impossible for the premises to be true and the conclusion false, and so, if the premises are true (in fact) true, then the conclusion is true too. A deductively valid argument whose premises are, in fact, true is called a sound argument.

As an example, consider the argument in Table 1.3. This argument is deductively valid. And, it so happens, its premises are true as well. So, the argument is sound.

P1 Obama is President or McCain is President of the USA.
P2 McCain is not President.
C Therefore, Obama is President.

Table 1.3. Argument for Obama as President

One way to criticize an argument other than asserting that its premises are false is to say “the argument is not valid.” That is, the argument is invalid. What this means is that it is possible for the premises to be true and the conclusion false.

Let’s return to the argument in Table 1.1 and determine whether the argument is deductively valid or invalid. That argument consists of two premises. Let’s assume that both are true. Does the conclusion still follow? That is, is it impossible for the premises to be true and the conclusion false? No. Even if it were true that “all pollution is caused by hippies” and that “John is a hippie”, it
1.2 Inductive Arguments

is still possible that “John does not cause pollution”. Consider the the first premise does not say that “all hippies cause pollution” or “all of the hippies are responsible for all of the pollution”.

Finally, it is important to note that an argument does not need to have true premises in order to be deductively valid. For instance, consider the example in

<table>
<thead>
<tr>
<th>P1</th>
<th>All pigs fly.</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>David Agler is a pig.</td>
</tr>
<tr>
<td>C</td>
<td>Therefore, David Agler flies.</td>
</tr>
</tbody>
</table>

Table 1.4. Argument for Flying Pigs

Notice that neither P1, P2, nor C are true, but the argument is nevertheless valid. It is deductively valid because were the premises true, it would be impossible for the premises to be false.

1.2 Inductive Arguments

Not every argument purports to be deductively valid. Some arguments, instead, purport to be inductively strong. We say that an inductive argument is strong when it is likely that if the premises are true the conclusion is also true. While validity is an all-or-nothing, the strength of an argument is a matter of degree and a comparative notion. Some premises provide more support to their conclusions than others; arguments of this nature are thought to be stronger than those arguments that provide less support.

To illustrate, consider the following examples:

<table>
<thead>
<tr>
<th>P1</th>
<th>63 percent of Penn State students surveyed said they do not support raising tuition.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Therefore, 63 percent of Penn State students do not support raising tuition.</td>
</tr>
</tbody>
</table>

Table 1.5. Argument for PSU Student Opinion on Tuition

Whereas P1 could be true while C is false (i.e., it is not valid), notice that P1 offers evidence or support for C. Whereas it is not necessary that if P1 is true, then C is true, it is likely if P1 is true, then C is true. We think that this is likely as the premises offer a fair degree of support for the conclusion.

One particular kind of inductive argument is called an argument by enumeration. These arguments support a universal (general) conclusion by citing instances of that conclusion:

<table>
<thead>
<tr>
<th>P1</th>
<th>John played football and has bad knees at age 50.</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>Frank played football and has bad knees at age 50.</td>
</tr>
<tr>
<td>P3</td>
<td>Liz played football and has bad knees at age 50.</td>
</tr>
<tr>
<td>C</td>
<td>Therefore, everyone who plays football will have bad knees at age 50.</td>
</tr>
</tbody>
</table>

Table 1.6. Argument for Football Causing Bad Knees
Notice that P1, P2, and P3 are all examples or instances of the general claim found in C. The argument in Table 1.6 also shows that the strength of an inductive argument is a matter of degree, e.g. a couple thousand instances would make it more likely that if the premises are true, then the conclusion is true. In contrast, supporting the conclusion with a single instance seems to indicate that the conclusion is less likely (or at least not as strongly supported).

One way to criticize an inductive argument is to say that the argument is not strong but is instead weak. To say that an inductive argument is weak is to say that it is not likely that if the premises are true then the conclusion is also true. What this means is that it is not likely that even if the premises are true, it would not make the conclusion true. An obvious example of this are cases where the premises are irrelevant to the conclusion. For example, consider the following argument in Table 1.7

| P1   | The sky is blue.                      |
| P2   | I feel happy.                         |
| C    | Therefore, everyone who plays football will have bad knees at age 50. |

Table 1.7. A New Argument for Bad Knees

Notice that it is not likely that even if P1 and P2 were true (again, we are not saying they are), C would not be true.

But, there are other ways to criticize inductive arguments. With respect to arguments by enumeration (see Table 1.6) we might say that citing only a few instances of football players who have bad knees is not enough to show that football playing causes bad knees. The bad knees may be the result of some other factor, e.g. some football players may like to dance after their games at clubs and dancing causes bad knees.

1.3 Summary

In this section, the notion of an argument was presented, conventions were presented for how to present arguments, and there was a brief discussion of two ways to criticize arguments.

Activity: Create an inductively strong argument for why we shouldn’t (or should) hurt puppies. Be sure to label your premises and conclusion clearly.
Chapter 2

Environment and Environmentalism

In a branch of philosophy known as “metaphysics” (specifically ontology), one common question that gets asked are what-is-X questions. These types of questions essentially ask what kinds of properties does a thing have to have in order to be $x$. For example, “what is a physical body?” is an example of a what-is-$x$-question, and a possible answer might be “something that is extended in three dimensions.” In this lesson, we ask a number of “what-is-$x$ questions” about the environment, about environmentalism, and about environmentalists. In addition, we probe how environmental problems get talked about and why there is an increasing concern about environmental problems.

2.1 What is an Environment?

People use the term “environment” in several different ways.

**Environment (human life):** The term “environment” can refer to the “human environment”, i.e. all of the places that people inhabit in some way, shape, or form, whether it be through work, play, rest, or travel.

**Environment (natural, non-human):** The term “environment” can refer to “natural environment”, which refers to the network of non-technological physical spaces and things that play influence the growth and survival of organisms.

**Environment (connectivity):** The term “environment” can refer to all places on Earth whether it includes human-made things or not.

A key element of each of these definitions is that the environment is “one thing, spread, more or less, over the surface of the world” (Belshaw, 2001, p.2). Let’s call definitions of the environment that share this property **global definitions of the environment**.

In contrast to global definitions, there are definitions that understand environments as a multiplicity of mostly *unconnected* places.

**Environment (multiplicity):** The term “environment” can refer to all of the things in your hometown or place where you call your home, e.g. all of the rivers, buildings, animals, insects that inhabit the place where
you are from. Other people have other environments, but there is no single overarching environment.

Let’s call definitions of the environment that reject the idea that there is a single, connected thing called the environment in favor of the idea that there are a number of discrete environments local definitions of environment. For example, consider the definition of an ecosystem provided here Organisms in their Environment (see up to 2m), where particular ecosystems can be small or large.

2.1.1 Selecting a Working Definition

We won’t try to settle which definition of “environment” everyone should use (pointing out the different definitions of “environment” alerts us to the different ways that people may refer to environment and will allow us to avoid confusion when talking about environmental issues). Instead, we will adopt a definition that has the following four characteristics:

1. there is one environment (not a bunch of unconnected environments)
2. the environment exists as outdoor places and things (so not indoor places like restaurants or your apartment).
3. the environment exists irrespective of whether people inhabit it (so some uninhabited desert is an environment even though no human lives there).
4. the environment must refer to places that are within our current ability to inhabit (so not Mars, but maybe someday).

Given this definition of environment, what does it mean to say an issue or problem is “environmental”?

An environmental issue is some issue that concerns some part of the the outdoor, public, inhabitable, and natural world.

Consider some examples in Table 2.1.

<table>
<thead>
<tr>
<th>Environmental Issue</th>
<th>Not an Environmental Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>deforestation in a national park</td>
<td>painting the walls of your apartment green rather than also playing a role in the increased awareness of blue</td>
</tr>
<tr>
<td>dumping leftover paint in a river</td>
<td>biking rather than walking to school</td>
</tr>
<tr>
<td>littering</td>
<td>shooting guns off on your farm</td>
</tr>
</tbody>
</table>

Table 2.1. Examples of Environmental Issues

2.1.2 What are Environmentalists?

Two other what-is-x questions that we’ll try to provisionally answer are “what are environmentalists?” and “what is environmentalism?”

Environmentalist: an environmentalist is someone who (i) shows a high degree of awareness of environmental issues and (ii) makes some reasonable attempt to act on this awareness by caring for the environment.

Notice that the definition of environmentalist has two conditions. The first condition requires a special or heightened awareness (or knowledge) of various
2.1 What is an Environment?

actions or cause-effect relationships that impact the health of the environment. So knowing that dumping toxic waste into a watershed would not make you an environmentalist since it is common knowledge, but knowing certain special facts about the effects of CO$_2$ on some ecosystem might as having some kind of special knowledge or awareness about the environment.

But even if someone did have a high degree of awareness about environmental issues, they might still not be an environmentalist. The second condition required to be an “environmentalist” is that one reasonably act on this awareness in a way that shows concern for environment. For consider that someone might know a lot about the environment, but have an indifferent or malevolent attitude toward its health. They might have expertise in the best locations to dump toxic waste without getting caught or they might have detailed knowledge about the negative effects of littering but do it anyway.

Thus, to be an environmentalist requires both knowledge and action directed toward helping the environment. On its own, intelligence is not enough nor is strong concern. In order to be considered an environmentalist, you must meet both conditions. First, you must have a high degree of awareness about environmental issues. Second, you must act on that awareness in a way consistent with an effort to care for the environment.

Relying on this understanding of what an environmentalist is, we can define environmentalism as follows:

**Environmentalism:** refers to the view that understanding of and care for the environment are reciprocal. That is, increased care for the environment encourages individuals to seek out an increased understanding, and vice versa.

Environmentalism thus refers to the close connection between caring for and understanding the environment. Someone promoting environmentalism would thus be committed not merely to a scientific understanding of the environment and not merely concern for the environment but with fostering both at the same time.

2.1.3 Environmental Disasters & Emotive Language

Some events are referred to as “environmental disasters”, “environmental crises”, “environmental destruction,” and so forth. Individuals often use these terms both to describe some event’s impact on the overall health of the environment, evoke emotions of shock and horror, as well as evaluate that event as one that should be avoided or one that is the result of some wrongdoing. Such language is descriptive in that it aims to detail what happened, emotive in that it aims to elicit a certain feeling about what happened (or might happen), and prescriptive in that it claims that what happened shouldn’t have happened. Classifying an event as an “environmental disaster” also serves as a call for action as there is the assumption that we ought to deal with big environmental problems (the disasters) before we address the little environmental issues (the non-disasters).

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big environmental issue</td>
<td>Small environmental issue</td>
</tr>
<tr>
<td>DISASTER!</td>
<td>non-disaster</td>
</tr>
</tbody>
</table>

**Table 2.2.** Order for Handling Environmental Issues
But classifying one event or another as an environmental disaster is problematic for a number of reasons:

1. some events that don’t seem like environmental disasters cause as much harm as events that are classified as disasters,\(^1\)

2. it isn’t always clear why certain actions get classified as disastrous or horrific as their consequences are not clearly spelled out.

In order to take a more neutral, descriptive approach to things, we will follow Belshaw and use the expression “environmental problems” (or “issues”) rather than simply looking at an event and using our “intuitions” to call it an “environmental crisis” or “disaster”, we will try to describe the event using the following three questions:

- If \( e \) = disaster, crisis, problem, issue, etc.
- 1 What is supposed to happen if \( e \) occurs?
- 2 What would be so bad if \( e \) did occur?
- 3 How should we feel about \( e \) occurring?

Table 2.3. Three Questions about Environmental Disasters

### 2.1.4 Awareness of Environmental Problems

Let’s conclude with a discussion of why there has seemingly been an increased awareness of environmental problems? One suggestion is that this awareness was due to an increase in the sheer number and severity of environmental problems during the 19th and 20th centuries. The idea is that during the 19th and 20th century, there was a huge development in the use and kinds of industrial technologies. These technologies allowed human beings to gain greater control over the environment and to harness its resources for human purposes. Unfortunately, many industrial technologies also had damaging effects on the environment. Thus, one possible answer to why we have become increasingly aware of environmental problems then is that environmental problems are just so much worse than they used to be. It is too hard to not know about environmental issues because they are more severe and seemingly ubiquitous.

A second reason is proposed by Christopher Belshaw. He contends that in addition to environmental problems becoming more prevalent and severe, we’ve also become more aware of environmental issues because we are better at talking about such issues. Belshaw suggests that as the problems grew worse, the terminology for talking about these problems developed and this development

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\(^1\)As Belshaw (Belshaw, 2001, p.6) writes “Oil super-tanker groundings, the most recent off the Galapagos, are referred to almost without exception as disasters, although not with evident good reason. Building a few miles of motorway, or a new shopping mall, will cause the death of a comparable number of animals and a greater number of plants, and lead to an irreversible loss of habitat”.

---

Activity: In a small group, come up with an example (it can be an imaginary one) of some upcoming event that might be called an “environmental disaster”. In doing this, answer each of the three questions in Table 2.3.
of terminology further contributed to the awareness of environmental problems (see (Belshaw, 2001, p.6)). Belshaw seems to suggest that we’ve become more attuned to the different environmental problems because we can categorize the different kinds of problems better. Rather than simply saying “oh that problem over there is an environmental problem”, we can now say “oh that problem is an issue that concerns the treatment of animals, or pollution, or conservation, or preservation.”

A third reason why we seem to be more aware of environmental problems involves social and ideological factors. For example, Historian Robert J. Smith notes that environmentalism was supported by those against capitalism, those who swept up in “being green” as it was fashionable, and those who saw the communist (specifically Soviet) system as friendlier to the environment and the citizens of the state. For a discussion of the rise of environmentalism and its connection to communism, see A Short History of Environmentalism.

2.2 Environmental Problems and Philosophy

We will take a philosophical approach to environmental problems. In order to do this, we’ll need a clearer sense of what philosophy is.

2.2.1 What is Philosophy?

Let’s begin with a definition.

**Philosophy** is a positive and critical science that draws upon both common experience and the results of science in order to make claims of a highly general and fundamental nature. In so doing, its principal aim is to better understand the world, its members, and their relations.

Let’s consider the parts of this definition.

First, calling philosophy a “science” refers to the attitude of individuals engaged in philosophical study. This attitude is that of an individual who aims to find out the truth of something or who is willing to learn. Such an attitude is contrasted with that of hoaxers, charlatans, con-artists, and similar folk who are more interested in pretending that they know (when they don’t and know that they don’t). In addition, such an attitude is contrasted against individuals who aren’t actively trying to find out the answer to a given question. Individuals who might be cock-sure, overly confident, indifferent, or lack an openness to investigate would not qualify as having a scientific attitude in the sense used above.

**Question:** So, why do you think we’ve become increasingly interested or aware of environmental issues? What environmental issues are on everyone’s minds these days?

**Question:** What is your experience with philosophy? Have you taken any previous courses? Is your view positive or negative?
Second, calling philosophy a “positive science” contrasts it with both mathematics and fiction.

- although mathematics is a science, it studies hypothetical entities (e.g. circles) that do not exist in the world. Philosophy, on the other hand, is about the real, lived-in world.
- although some fiction relies on historical events or tries to say things about the world we live in, not all fiction aims to describe the world that we live in.

Third, in calling philosophy a critical science consider that in our day to day life there are a number of beliefs that we accept at face value. Philosophy does not encourage you to abandon any of these beliefs, it rather asks you to subject these beliefs to a kind of rational scrutiny. Philosopher Thomas Nagel says that we do this by “asking questions, arguing, trying out ideas and thinking of possible arguments against them, and wondering how our concepts really work.” (Nagel, What Does It All Mean?, p.4).

One way of putting what Nagel is saying is that philosophy aims to do one of two things. First, it aims to offer our face-value beliefs a kind of rational support when no such support existed previously. Second, if no such support can be found, it aims to substitute our face-value beliefs with rationally-supported alternatives.

Fourth, in saying that philosophy relies upon “common experience” contrasts it with the methods and types of observations used in empirical (laboratory) science and religion.

- it is not a laboratory science like physics, biology, chemistry as it does not make use of special observations that can only be made with special tools (e.g. electron microscope). The primary data upon which it relies are experiences available to us all as humans in the world.
- it is not religion in that it does not depend upon supernatural experiences (e.g. witnessing a miracle) but instead appeals to experiences that we all have access to.

Fifth, saying that philosophers aim to make claims of a “highly general and fundamental nature” refers to the fact that the discipline is concerned with very basic and foundational concepts. For instance,

- it isn’t Sociology or Anthropology as it does not study one particular society or group of people, but asks questions about society or people as a whole, e.g. what does it mean to be human? what does it mean to live in a civil society?
- it isn’t concerned with the questions that single individuals have about life or the world or with the experience of isolated individuals. It instead poses questions that we all have as human beings and addresses experiences that are common to us all.

Finally, in saying that the “principal aim [of philosophy] is to better understand the world, its members, and their relations” we point to some of the key subjects of philosophy. Consider that we all have the following:

1. beliefs about the world: general beliefs about the world as a whole, e.g. what types of things exist in it and how those things interact,
2. beliefs about knowledge: a tacit (unspoken) set of conditions that beliefs must meet in order to count as knowing something,
3. beliefs about morals: a set of beliefs about what is right and wrong (or at least the view that there is no such thing as right or wrong).

Figure 2.5. Philosophy
Many of these beliefs lack explicit rational support. The concepts which we use to articulate these beliefs go unclarified. The beliefs that we think are justified remain uncriticized and untested.

When we philosophize, what we do is scrutinize our beliefs by trying to clarify certain key concepts, justify our beliefs with evidence (common experience), and criticize alternative views that might conflict with our own. The sum total of our clarifications, arguments, objections, and responses to criticisms produces the following:

- **metaphysics**: the philosophical study of the nature of reality (a rational investigation into beliefs about the nature of the world and its members).
- **epistemology**: the philosophical study of the nature of knowledge (a rational investigation into beliefs about the nature of knowledge, a kind of relation to things in the world).
- **ethics**: the philosophical study of the nature of right and wrong (a rational investigation into beliefs about right and wrong a kind of relation to things in the world).

Thus, in short, “philosophy” is a discipline that aims to be a positive, general, and critical science of common experience that is deeply concerned with all of the following (and more):

1. with making positive (true or false) claims about the world.
2. with a certain aspect of reality that is of a fundamental (or highly general) nature
3. with making claims that are rooted in our common experience (even though it may rely upon the special results of the sciences), and
4. with scrutinizing our face-value beliefs by providing rational support by way of arguments for them (when there did not exist any previously) or encouraging us to abandon these beliefs for some alternative.

### 2.2.2 Philosophy and Environmental Problems

With philosophy defined, it is now time to consider a question about the relation between philosophy and environmental problems. We will do this by considering the following question:

**Philosophy & Environmental Problems** What can philosophy offer those interested in environmental problems?

Belshaw (Belshaw, 2001, p.9) offers two ways that philosophy can aid those interested in environmental problems.

1. Philosophy can help clarify many of the key terms operative in the discussion of environmental issues, e.g. “environment”, “environmentalism”, “pollution”, etc.
2. Philosophy can best address questions having to do with values (morals) upon which many environmental problems hinge.

This, however, might not be accepted by individuals who are unconvinced by the merits of philosophy. Consider the following two objections:

- **O1**: philosophy can make no contribution to solving environmental problems as environmental problems are better solved by science
- **O2**: philosophy can make no contribution to solving environmental problems as these problems are better solved by either tradition, religion, or
24 Environment and Environmentalism

politics (majority decision).

**O3:** philosophy can make no contribution to solving environmental problems because *nothing* (not philosophy nor science, tradition, religion, politics) can solve these issues.

In what follows, we investigate these objections by arguing that while science, tradition, religion, and politics are all important, philosophy nevertheless plays a key role in dealing with environmental problems.

### 2.2.3 Philosophy vs. Science

Let’s consider the objection that philosophy can play no role in solving environmental problems because every problem that philosophy purports to solve can be better solved by *science*.

In particular, let’s consider an example having to do with environmental safety and whether there is an answer to how safe a technology must be in order to be built and used. Let’s imagine we are examining the blueprints for a nuclear reactor that will sit somewhere near Harrisburg, Pennsylvania. We, of course, want the reactor to be safe, but also don’t wish to increase the expense of the construction of the reactor by requiring unnecessary safety systems. More safety systems requires more tax dollars, and more tax dollars diverted toward safety systems means less cash in our pockets, for social programs, infrastructure, and homeland security.

![Figure 2.7. NRC Generic drawing of Containment Building and Basic Internals. Public Domain.](image)

**Figure 2.7.** NRC Generic drawing of Containment Building and Basic Internals. Public Domain.

Nuclear reactors have what are called “containment systems.” The containment system refers to various mechanisms employed to protect the outside world from the nuclear reaction occurring in the reactor vessel. Part of the containment system involves a large concrete shell that covers the reactor vessel. Let’s call this the “containment building”.

Containment systems increase the overall safety of the reactor. For example, on March 28, 1979, the Unit 2 nuclear reactor at Three Mile Island (TMI) near Harrisburg, PA suffered a partial meltdown. The TMI reactor had a containment building and if the accident that happened at TMI happened in a reactor that did not have a containment building, the personnel operating the reactor would have been killed and those in the surrounding area would have been exposed to large amounts of radiation.

So, in staring at blueprints for a nuclear reactor, there is a question before us: should we require reactors to have a containment building?

Scientists and engineers may be able to tell us the likelihood that an nuclear accident will occur (e.g. 1 in 100,000), and may be able to tell us what kinds of health and environmental damage will occur were a reactor to meltdown without a containment building, and so they may be able to tell us how much
we decrease the environmental and health risks by installing a containment building, but can they answer whether we should or should not require reactors to have containment buildings?

Of course, they could offer their opinion on whether building one would be a good idea, but the grounds on which they say we either should or shouldn’t build a building seems as though it would extend beyond their scientific expertise. It extends beyond their expertise because they are making a statement concerning values. Do we value increased safety and protection to the environment or is cheap energy, low taxes, and more social programs, infrastructure, homeland security more important to us?

Analogously, a doctor who is knowledgeable about the relationship between cigarette smoking and lung cancer can speak authoritatively about the likelihood of getting lung cancer if we continue to smoke. But, a doctor cannot, as a doctor, tell us that we shouldn’t smoke (or that it would be wrong to smoke). Typically, with respect to questions of personal health, we think that this is for the individual to decide (although this isn’t altogether uncontroversial).

Let’s consider this example one step further. Suppose you think that if a nuclear reactor is to be built, then it ought to be built with a containment building. This is obvious to you, obvious to the engineer who designed the reactor, and obvious to the people living around the reactor. But how safe is safe enough? A containment building does not eliminate environmental and health risks, it only reduces it. So, another decision presents itself. The containment building is essentially a casing for the reactor vessel, so how strong do you create your containment building? There are, of course, recommended design specifications but you could choose to ignore these specifications and make the unit weaker than recommended (and save money) or stronger than recommended (and increase safety)? Should you build it strong enough to withstand the impact of an airplane crash or is this an unnecessary precaution?

Again, engineers and nuclear physicists may be able to tell you how much additional safety you gain by strengthening the containment building but they cannot tell you whether you should increase or decrease the strength of the unit. This is a question of values, viz., do we value added security reaped by a strengthened containment building or cheap electricity?

So, the argument then is that we think that something other than empirical science (chemists, physicists, engineers, et alia) should determine how safe is safe enough and, more broadly, questions about values. One proposal then is that philosophy (or a philosophical consideration of the matter) can do this by taking a philosophical approach to the matter. It might do this by

- clarifying the key terms operative in making a decision one way or another. That is, it can provide aid to those seeking to solve environmental problems by giving a more detailed account of what it means for a structure like a nuclear reactor to be “safe”
- critically consider the benefits associated with running certain risks and whether those benefits outweigh certain harms. In doing this, philosophy aims to give an account of the underlying values that motivate certain
choices about safety. What is more important to us safety from a possible nuclear meltdown or cheap energy?

- it consider the range of individuals and things (e.g. rivers, forests, ecosystems) that matter when we talk about who or what might be harmed by a possible nuclear accident.

In sum, while there are many questions about the environment that are rightfully answered by scientists, there seem to be a certain category of questions that are best answered by something other than empirical. At least at first glance, it appears that taking a philosophical approach to such issues might provide answers.

2.2.4 Philosophy vs. Tradition

Let’s consider an objection to the idea that there are a distinctive set of environmental issues that require the aid of a philosophical approach. That is, an approach that aims to (i) clarify certain fundamental concepts as well as (ii) question, answer, and argue for certain conclusions having to do with morality.

O2: The questions that philosophers claim they are particularly well-suited to answer can be equally answered by appealing to tradition, religion, or politics.

First, let’s consider the idea that when dealing with environmental problems, we should simply appeal to tradition. Here is how the argument for this view might go (see Table 2.4).

<table>
<thead>
<tr>
<th>Premise</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>C</td>
</tr>
<tr>
<td>The best way to solve an environmental problem P or issues like P is to do what we have always done.</td>
<td>Therefore, we should let tradition (not philosophy) guide our behavior with respect to environmental problems.</td>
</tr>
</tbody>
</table>

Table 2.4. A Simple Argument from Tradition

There are two problems with the above argument.

O1: P1 is false. The way we currently do things (the traditional approach) is not an infallible guide to how we ought to do things. There are a number of practices that we have previously engaged in that were incorrect (e.g. slavery) and there are practices that we currently engage in that do not seem optimal.

O2: Even if we assume that the premise (P1) is true, the argument assumes that because we have done something one way for a particular length of time, that way of doing things will continue to be successful in the future. The conclusion does not follow because P may be a new problem requiring a new approach (e.g. what is the best way to handle global warming brought on by the development of new technologies?)

But, none of this is to say that tradition is meaningless or shouldn’t guide our approach to environmental issues. However, arguing that in such and such case we should behave in a way similar to earlier generations requires an argument. And, in appealing to arguments involving reasons to support our view, we find ourselves philosophizing once again.
2.2 Environmental Problems and Philosophy

2.2.5 Philosophy vs. Religion

Next, let’s consider the idea that when dealing with environmental problems, we should appeal to religion. Here is how the argument for this view might go (see Table 2.5).

| P1 | The best way to solve environmental problem P or problems like P are to follow the commands of the true religion. |
| C  | Therefore, we should let the commands of the true religion (not philosophy) guide our behavior with respect to environmental problems. |

Table 2.5. A Simple Argument from Religion

There are a couple problems with this argument.

O1: One of the immediate difficulties is deciding between the different religions and determining which religion’s commands should be followed and which should be ignored. We thus need a way to decide which religion offers the best advice on what to do about a particular environmental problem. But barring a religious experience (e.g. direct revelation from God that religion X is the true religion), the only means available to us to make this determination would be a philosophical one, i.e., one that involves putting forward arguments that make use of reasons that appeal to our common experience.

O2: A second difficulty is that even when a particular religion is thought to be the “true religion”, there is disagreement about what the correct response to environmental problems should be. Consider the following video Christian Perspectives on the Environment (note: at the end there is a plug for Biola University). Note that even were we a committed Christian, we might disagree about whether global warming or littering is an environmental issue or what the best approach would be to solve those problems.

2.2.6 Philosophy vs. Politics

Finally, let’s consider the idea that when dealing with environmental problems, we should simply appeal to politics or majority decision. We will consider this particular argument in more detail later (chapter 4), but for now consider the argument in ??

| P1 | The best way to solve environmental problem P or problems like P is to let the majority rule. |
| C  | Therefore, we should let majority rule (not philosophy) guide our behavior with respect to environmental problems. |

Table 2.6. A Simple Argument from Politics

There are a couple problems with substituting majority rule for philosophy. First, there are at least two philosophical difficulties in deciding what percentage of the population constitutes a majority.
O1: By “majority”, do we mean 51 percent or some other percentage, e.g. two-thirds. In addition, who counts in determining the “majority”? Is it all citizens of a certain country or all human beings regardless of citizenship? Is it all individuals over 18 years of age, or 16 years of age, or 21 years of age? Is it all individuals that are somewhat well-informed about the environmental issue at hand or any individual regardless of whether they know anything about the environmental issue at hand?

O2: Even if we were to settle certain philosophical issues concerning what constitutes a “majority”, the process by which we decide might be guided by a significant amount of philosophizing. Presumably, in deciding what to do about a particular environmental issue, we won’t simply take the knee-jerk reactions of everyone in the majority. Instead, there will likely be a significant amount of deliberation, discussion, and argumentation before a vote is called. In other words, the majority decision will likely be guided by a fair amount of philosophizing, e.g. exploring different alternatives, raising and criticizing arguments, and analyzing different key concepts.

In sum, it appears that there are some weighty considerations against simply substituting tradition, religion, or politics for philosophy. And, even if we think there is something valuable in our traditional way of solving environmental issues, in a distinctively religious approach, or in the political process, all three will involve a fair amount of philosophizing.

2.3 Pollution, Conservation, Preservation

Assuming that there is something identifiable as the environment, that there are environmental issues or problems, and that philosophizing about such problems is useful, it will be helpful to consider (i) a way of categorizing these problems into sub-problems and (ii) several examples of each of these sub-problems. In other words, let’s look at some different kinds of environmental problems before we investigate how philosophy might help solve them.

In this section, we will consider three different types of environmental problems and we’ll provide an example for each type. Recall that an environmental issue or problem that concerns some public space within the natural world.

Let’s consider three different kinds of environmental problems:

2.3.1 Pollution

Let’s define a problem of pollution as follows:

a problem of pollution: a type of environmental problem that concerns degradation, damage, or disruption to some part of the environment due to the excess of some material.

In calling it a problem, we make the assumption that the particular kind of material that damages the environment is something adverse, harmful, or undesirable for human beings or some other being. It is worth noting that issues solely concerned with pollution are concerned with harm to some being. In other words, pouring oil into a river or contaminating the air with toxic gas is not an issue of pollution if it does not, in some way, harm some being.

There are numerous examples of problems associated with pollution.
2.3 Pollution, Conservation, Preservation

<table>
<thead>
<tr>
<th>Problem</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP oil spill</td>
<td>April 20, 2010 oil spill which occurred in the Gulf of Mexico (considered one of the worst environmental accidents in U.S. history). The oil caused significant damage to various parts of the environment, including coral life, dolphins, sea turtles, plankton, shrimp, and a number of other animals.</td>
</tr>
<tr>
<td>Chernobyl Reactor</td>
<td>Reactor meltdown in 1986 killing 30 individuals (28 by the release of radioactive material into the atmosphere)</td>
</tr>
<tr>
<td>Air pollution</td>
<td>A variety of cardiovascular diseases, lung cancer, asthma, and chronic obstructive pulmonary disease (COPD).</td>
</tr>
</tbody>
</table>

Table 2.7. Problems of Pollution

Table 2.8. Some Examples of Problems Concerning Conservation

2.3.2 Conservation

Let’s define a problem of conservation as follows:

**problem of conservation:** a type of environmental problem whereby some being is (or will no longer) be able to use some part of the environment for some important purpose.

Problems associated with conservation deal with concern for some part of the environment so long as that part is a resource for some being. That is, concern for the environment is not for its own sake, but insofar as it serves some purpose for some being in the near or distant future. To put it bluntly, a pure conservationist cares about trees and harm to them because they can be used to build furniture, soil quality because it can be used to grow plants that can be eaten, and other natural resources because it can be used to run cars, power generators, and so forth.

**Scope of Conservationism:** A key issue concerning conservationism that needs to be worked out concerns its scope. That is, “conservationism” can be understood in two different ways.

First, we might understand the definition in a narrow way and say that the only parts of the environment worth conserving are those that impact a human being’s use of the environment. Thus, if the trees and various other objects in a forest did not serve any human purpose (e.g., everything can be made of plastic and humans evolved so they no longer required oxygen to breathe), then the widespread clearing of forests would not be a problem of conservation.

Second, we might understand the definition in a general way and say that the
parts of the environment worth conserving are those that impact any being that can be said to use part of the environment for a some purpose. On this account, we might say that widespread deforestation is a conservation problem since birds or insects (which live in trees) depend on trees and forests for survival.

**Nature as Culprit:** Causes of conservation problems can be the result of human activity or the result of natural processes. Suppose that trees are a natural resource that we wish to conserve. The unsustainable clearing of forests by timber companies creates an environmental problem that we would classify as a problem of conservation. If a timber company clears the forest without replanting trees, then there is a net loss of the total number of resources available to future human beings for future purposes. Forest fires also deplete the total number of trees. While in some cases fires are caused by human beings, e.g. discarding cigarettes or falling power lines, in other cases these fires have a natural cause, e.g. erupting volcanoes, lightning, falling rock that sparks also deplete of the total number of trees.

### 2.3.3 Preservation

A third type of environmental problem concerns the preservation of the environment. Whereas issues concerning pollution have to do with the introduction of some material that harms some being in the environment and issues concerning conservation have to do with concern for some part of the environment that is considered a natural resource, issues of preservation concern disruption to some part of the environment that is **valuable in its own right**.

A **problem of preservation** is a type of environmental problem whereby some intrinsically valuable part of the environment is destroyed, damaged, or devalued.

In saying that something is **intrinsically valuable**, we say that it is valuable in its own right, for its own sake, or its value does not depend upon it being used for something else. In contrast, something is **extrinsically valuable** (or has instrumental value) if and only if it is valuable as a means of obtaining something else. For example, consider money. For most people, money is not intrinsically valuable. Its value instead depends upon its capacity to acquire things that are valuable in its own right, e.g. the preservation of our health, the preservation of our life, etc.

**Further Thoughts**

One concept covered in which I found interest and relatability to was the problem of preservation. This problem is defined as "a type of environmental problem whereby some intrinsically valuable part of the environment is destroyed, damaged, or devalued." This so called “damage” could be anything from deforestation, to overfishing, to pollution and so on. To be concerned with preservation is to be concerned for an environment which holds “value in its own right.” These environments are considered to be intrinsically valuable in the eyes of a preservationist. This means that they are valuable on their own, without being used for any other purpose.

Preservationists are not interested in saving an environment in order to have the resources available for future use. **Figure 2.10** was taken on a hiking trip at the Glen Onoko waterfalls. These waterfalls and the area surrounding them are a perfect example of a preserved environment. This area is not valuable to me because of the resources you may be able to acquire from it such as water and minerals. The environment, instead, holds intrinsic value solely because of its pure beauty. Glen Onoko is a place to admire the breath-taking view over acres of forests, the smell

**Question:** Should we be concerned with conserving resources for non-human beings or should our concern only extend as far as it impacts human beings?

**Video:** Many environmental problems are packaged as conservation problems. For example, consider this **1937 instructional film** which encourages changing practices associated with forestry, farming, and oil extraction. Notice that the primary focus of the video is on problems that result in the loss of natural resources. Forests contain valuable resources for building homes, toys, and furniture. While the video occasionally points to the beauty of forests, it’s emphasis is more on how best to protect parts of the environment so that it can be used by human beings in the future.

**Question:** What types of things should we be most concerned about with respect to conservation? And, what are the best ways to conserve natural resources?

**Question:** In a group, quickly create a list of things that you think are valuable. Next, determine which of these things is valuable in terms of its capacity to acquire something else and which is valuable in its own right.
Preserving the area leaves it available for humans to admire its presence. You will not find people taking the water, minerals, and tree resources for their own good. Preservation, as opposed to conservation, is not interested in up-keeping the waterfalls for a specific purpose. Conservation is interested in protecting environments in order to have its resources available later down the road. Environments should be saved for reasons besides just using its resources. There is no hunting, deforestation, or littering allowed at Glen Onoko. That is because the preservation of this great, natural place is saving its beauty for future generations to come. – Tyler Rogalewicz

Preservation, in the context of the environment, is believing that the environment should be saved and maintained for its own sake (Belshaw, 2001, p.17). Additionally, preservation includes that we do not save the environment simply for later use as to benefit us (Belshaw, 2001, p.17). Therefore, preservation is built on the foundation that the environment is intrinsically valuable. An object that has intrinsic value is considered something that is valuable not by what you can extract from it but simply because it is valuable all on its own subsection 2.3.3.

For example, some people may consider a park as a sign of preservation such as the state park in Figure 2.11 that was taken in Washington State. These people may believe that the park is valuable in its own right for its biodiversity of plant and wildlife. Conversely people may feel a quasi-religious experience while walking through the wooded areas. This quasi-religious experience may teach people to slow down and to enjoy the small things in life. Or another person may be able to find their place in the world while walking through the calm and quiet forest. Preservationists would want to leave the park the way it is and would reject the idea of developing or altering the land in any way. Therefore, if we were to destroy the state park and replace it with a strip mall, the intrinsic value of the park diminishes. In other words, the destruction of the park is a problem not because it may cause problems to the human race(less trees could raise carbon dioxide levels), but because it was something valuable on its own and we ruined it. – Seth Hoy

One example is the Grand Canyon. While the Grand Canyon is heralded for its breathtaking views, park ranger Stephanie Sutton explains that the Grand Canyon is valuable for additional reasons. She claims that the Canyon is important for its biodiversity, for its historical value, and for its unique power to produce a kind of transformative (quasi-religious) experience.

Most importantly what the Grand Canyon has to teach all of us is...
to slow down, to take it all in, to get to know what is beyond the reaches of the road, and look deep within the canyon itself. And find that sense of discovery in your self and that sense of wildness in this place. - Stephanie Sutton, Park Ranger

The claim here is not that there are various natural resources within the Grand Canyon worth conserving for future generations. That is, its value does not depend upon what humans can do with its parts for its purposes. Instead, the Grand Canyon has a power all its own, one capable of producing a profound and unique shift in perspective about how one lives in the world.

However, it is difficult to answer why something is intrinsically valuable. There are at least three reasons why some part of nature might be thought to be intrinsically valuable:

1. it is beautiful
2. it is of (pure) scientific interest
3. it is sacred or has a spiritual value

### 2.3.4 Restoration and Intervention

The preservationist and the conservationist need not disagree about how to behave toward the environment in order to best overcome some environmental problems. They will, however, have different motivations.

Preservationists might argue that since the value of a certain part of the environment is located in its current state, we ought not interfere with it (e.g. cutting down a forest). The conservationist might agree that nature ought to be left alone but for different reasons (e.g. a particular forest is useful for recreational purpose or for air). In addition, a preservationist might contend that nature has been significantly damaged and so we ought to return it to its original pre-damaged state. A conservationist might agree, but again for different reasons. They might see a particular part of nature as a valuable resource and so efforts to restore it to its original state would be a way of stockpiling resources for a future date.

In short, the preservationist and conservationist are not fundamentally at odds with each other in terms of what to do to fix environmental problems, but their motivations and reasons for correcting environmental problems seem to be radically different. The preservationist sees value in nature and there is a reason for protecting or restoring nature even if it provides no benefit to human beings. The conservationist sees value in nature as merely a means of obtaining some human end.

### Further Thoughts

**Problems of conservation** are environmental problems “whereby some being is (or will no longer) be able to use some part of the environment for some important purpose” (Belshaw, 2001, p.16). Pure conservationists care about parts of the environment because of the resources that can be utilized through those parts. That is, conservationists believe that the parts of the environment that are worthy of being protected depend on whether or not they can be used for some human purpose. **Problems of preservation** are environmental problems “whereby some intrinsically valuable part of the environment is destroyed, damaged or devalued.” Things that are **intrinsically valuable** are considered valuable in themselves, not because they are instrumental in obtaining something else. In contrast to the conservationist, preservationists contend that we have duties to nature beyond those that stem from our desire to use parts of nature for some human benefit.
The line between conservation and preservation is blurred as something said to be intrinsically valuable can be taken as having extrinsic (instrumental) value. Nature is often said to be intrinsically valuable because it is beautiful, but its beauty can be said to have extrinsic (instrumental) value as it benefits humans in various ways, e.g. by producing mental, emotional, and spiritual satisfaction. In other words, nature can be said to be both intrinsically valuable because it is beautiful in itself and extrinsically valuable because it is good for the mind, body, and soul. The concerns of the preservationist and conservationist thus overlap. While preservationists say nature deserves to be protected because of its beauty, scientific interest, and spiritual value, as these properties produce positive effects on the human being, they can also be understood as things we wish to conserve. – Lauren Koppenhaver

But there is additional level of interaction worth considering when thinking about how humans should behave with respect to the environment. This additional factor concerns whether restoration / management requires technological intervention or whether nature is best left alone as it can best manage and restore itself.

Intuitions and arguments go both ways about whether or not to let nature manage itself. During the 1950s, the USDA aimed to eradicate fire ants. Fire ants were an invasive species to the United States and so are not part of its “natural” environment. Thus, in an effort to restore and/or maintain environment, the USADA authorized the spraying of fire ants and other pests through aerial spraying of DDT. In short, the preservation of an environment (or the conservation of natural resources), e.g. protecting plant life from fire ants, might seem to call for bold new technological fixes, e.g. spraying pesticides.

However, there was a fair dose of skepticism about the capacity of human beings to use technology to either preserve or conserve the environment. Some individuals argue that technological intervention into nature actually does more harm than good. In response to the spraying of DDT, Rachel Carson wrote *Silent Spring*, a book which argued that DDT and other pesticides were not simply harmful to the pests they aimed to eradicate but life more generally, including human beings. Carson’s book is often credited as setting off environmentalism in the U.S. and leading to the ultimate banning of DDT. In short, quick technological fixes purportedly aiming to preserve environments (or conserve natural resources like crops) might worsen an already bad situation by damaging more of what individuals aim to preserve or conserve. Thus, we might be hesitant about human intervention with the aim to protect or conserve the environment.

But, the decision to ban DDT has not been without criticism. In the United States it only led to the use of DDT substitutes, but its worldwide ban has led some to criticize its effects on those living in developing countries where malaria rates are high. For example, consider this Simpleton’s Guide to DDT and Rachel Carson.

In sum, we find ourselves facing quite a complex situation. On the one hand, large-scale technological intervention can, in some certain circumstances and

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Video: Check out this quick overview of Rachel Carson and Silent Spring.
some contexts, hinder efforts to conserve or preserve an environment (including expose individuals to toxins that they would not be exposed to otherwise). On the other hand, technological intervention might be necessary to protect crops from invasive species or save human lives.

**Question:** Do you identify more with the conservationist or preservationist approach (or some combination) and why? In addition, in what circumstances, if any, do you think it is acceptable to make use of technological means to try to conserve or preserve some part of the environment? How should we proceed if we don’t know what the result will be in advance?
Chapter 3

Causes of Environmental Problems

In this chapter, we turn to a new question concerning environmental issues. Namely, we investigate some possible answers to what might be the fundamental cause of many of the environmental problems we currently face. While a number of environmental problems might have easy to identify causes (e.g. lit cigarette in a forest, drunk operator setting off the nuclear reactor, etc.) our investigation is to whether there is some general underlying cause of all (or most of these) problems.

Questions about underlying causes are not altogether unfamiliar. Children, for example, ask about such things when they (genuinely or not) repeatedly ask “why” questions.

A: It is a nice day today.
B: Why?
A: Well, because the sky is blue, it’s seventy degrees, there is a slight breeze, and the humidity is low.
B: Why?
A: Ughhh, because the earth’s position relative to the sun has put us in a position such that . . . and because our biological constitution ummm . . .

Similarly, with respect to environmental issues and problems, we can identify the immediate cause of problems, but we can also ask questions about the underlying cause of environmental problems in general:

A: There are no trees in this forest and a bunch of dead bunnies.
B: Why?
A: Well, ABC Timber came through and chopped them all down and the bunnies used to live here and now they don’t have a home so they perished.
B: Why did ABC Timber do that?
A: Well because ABC Timber can make a profit by selling the wood.
B: Why do they want to make a profit and kill bunnies?
A: Well, umm, err...

3.1 The Modern Materialistic Attitude

One answer for why there has been an increase in the severity and sheer number of problems is a shift in attitude toward nature. Traditionally, as the argument goes, individuals have had a close relationship with a particular land, depending
upon it for a source of food and regarding it as not only their home, but the
home of their parents and grandparents. Increased industrialization and a global
economy—where large-scale manufacturing of goods are shipped in from afar
rather than made locally, where individuals frequently travel or move for work,
and perhaps where success is measured by one’s material wealth rather than
one’s well-being—has ushered in a new materialistic attitude toward things.
The modern attitude toward life is one that is self-interested, materialistic,
urban, and mobile (unattached to any particular place). The value of natural
things are to be understood solely in terms of their capacity to boost national
economies and personal wealth and to satisfy individual desires.

It is thus the modern attitude that is thought to be one of the underlying factors
responsible for a number of the environmental problems we face. If a land is
polluted, individuals can move. If a resource is depleted, a new one can be
found somewhere else on the globe. If an environment is destroyed, a new one
can be visited.

Belshaw (Belshaw, 2001, pp.25-26) argues that this explanation is too simple.
He claims that the modern attitude is nothing new.

**Extinction** We blame the modern attitude for the extinction of a number of
animals. But human beings have been implicated in the extinction of animals
far before the first steam engine was built. For example, humans are thought
perhaps to be responsible for the extinction of the mammoth 13,000 years ago.

In addition, human beings are responsible for the extinction of the dodo bird,
Steller’s sea cow, the thylacine (or Tazmanian wolf), and a number of others. In
short, the modern attitude cannot be squarely to blame for animal extinction
as human beings have long been implicated in killing off various species.

**Pollution** With respect to pollution, Belshaw writes that “the world is not
obviously a dirtier place today than it was four hundred years ago” (Belshaw,
2001, pp.25). Belshaw notes that the air we breathe is cleaner, the food is safer,
and while we might point to the fact that there is more pollution overall, this
can be explained by the fact that there are more people living now than ever
before. Thus, it isn’t obviously the case that a modern material attitude has
somehow caused a rise in pollution.

**Self-Concern** Finally, according to Belshaw, it is not obvious that we are
more self-concerned and less environment-concerned now than before.

   Even though, because of roads, cities, airports and so on much less
land is available, there are more trees in England today than there
were in the eighteenth century(Belshaw, 2001, p.26).

The assumption here then is that more trees in England is an indication that
people are more concerned with the environment than ever before.

However, we might question whether Belshaw is right. In the U.S., debate over
the Affordable Care Act led the federal government to shut down national parks.
This brought attention as some individuals were arrested for trying to enter the
closed parks, but also to the fact that funding for health care would require
slashing the budget of national parks. The U.S. National Parks Conservation
Association claims that the average American currently pays only $2.56 (a little
more than a Starbucks coffee) to fund the national parks.

On the one hand, it might be argued that the very fact we fund national parks
shows a concern for the environment. On the other hand, the fact that the we
might be more willing to purchase a Starbucks coffee than agree to taxes that
Further Thoughts

In today’s times, many conclude that the human population’s materialistic views degrade the environment. Humans possess this self-centered trait that provides a narrow view of the environment and only allows humans to focus on themselves. Humans only care about what benefits them; they often place the environment on the backburners. However, Christopher Belshaw argues that humans concern themselves with the environment now more than ever. The problem remains that the dramatic increase in population contributes to more waste and pollution, which harms the environment. Our ancestors hurt the environment just as much, if not more, than we do today. Additionally, people pollute and ruin the environment not because they hold some evil trait but simply because of convenience or lack of proper knowledge.

I see the efforts of our modern world to “go green” and protect the environment on a daily basis. Right outside my dorm room (see Figure 3.1) stand numerous recycling containers for various materials like plastics, metals, styrofoam, and paper. The students in my dorm make an effort to separate their wastes to recycle and help the planet. However, people get confused as to where to place certain materials such as a paper cup with a plastic lid. Sometimes, people toss products like these into the trash because they become confused as to which container the object belongs. In this case, humans try to recycle and save the environment, but they are under informed as to how to recycle.

Figure 3.1 depicts the scene of confusion when attempting to recycle. The fact that recycling exists in such a wide range illustrates how modern society desires to fix the environment and prevent further degradation. Yes, lack of knowledge and convenience leads to poor choices concerning the environment at times. However, modern society cares about our planet, not only their own needs and benefits. - Katrini Helcoski

Further Thoughts

One hypothesis proposed about the underlying cause of environmental problems is that as a society we’ve become increasingly industrialized and materialist. Technology and industry have taken over human life and we, as human beings, cannot resist an increasing push towards developing new technologies. That is, we seek new phones with new capabilities and cars that can park themselves. This desire for new technologies, however, comes at an environmental cost. Historically, the Industrial Revolution brought forward disease, death, and a host of environmental problems. And, so the argument goes, as we continue to create new technologies, more negative environmental consequences will result.

I find this argument implausible. First, the negative impact of technologies is relatively short compared for how old this earth is. Second, the argument assumes that we cannot, as a species, change our attitude toward technologies, e.g. it assumes that continued education about how technology influences on our environment won’t result in positive changes towards our use of technologies or our ways of living in general.

In fact, it appears that individuals are already changing how we use natural spaces. Consider, for example, parks and plots of land set aside all around our country for wildlife and plant life to live and grow without the interference of humans (see Figure 3.2). If we continue to set aside land like this and education our population about the benefits of these parks, then the plots of land are only going to grow in size and health. Thus, in contrast to the increasing desire for new technologies are, as Belshaw writes, “nature, custom, habit and tradition” (Belshaw, 2001, p.19). In other words, if we can teach and create habits to rebuild the natural environment, we will be able to succeed in creating a livable environment for all living creatures.

There are many arguments as to why we are only finding out about these major environmental problems now. However, I believe our earth is still young. The damage that we have done may have been detrimental, but we still have time to make changes to our ways to slow down these problems. - Clark Brown
3.2 Christianity, Technology, and Dualism

If the modern attitude is not to blame, then perhaps it is a mixture of Christian religion and science. Modern industrial technology has given us the capacity to create more than we need to subsist and modern society allows individuals to possess more than they need to survive (or even reasonably flourish).

A good portion of the modern world adopts a Christian, democratic perspective (even if they are not Christian nor do they live in democratic countries). According to Lynn White Jr., the Christian view takes man as made in the image of God (along with the fact that Christ took the form of a man) and God as commanding us to use the world for our purposes.

By gradual stages a loving and all-powerful God had created light and darkness, the heavenly bodies, the earth and all its plants, animals, birds, and fishes. Finally, God created Adam and, as an afterthought, Eve to keep man from being lonely. Man named all the animals, thus establishing his dominance over them. God planned all of this explicitly for man’s benefit and rule: no item in the physical creation had any purpose save to serve man’s purposes (White Jr., 1967).

Equipped with high-powered technologies that allow for greater control over nature, the Christian attitude that nature is ours for the using and everyone has equal right to its use is claimed to be the underlying cause for much of the human-made environmental problems. White claims that Christians severe themselves from nature by (i) regarding themselves (and God) as the only beings with spirit (or souls) and (ii) seeing natural things as objects whose value is wholly derived from how it can serve human beings.

White’s suggestion, however, is not to abandon Christianity. Rather, he suggests that Christian environmentalists should look to an alternative strand of Christianity found in the life of St. Francis (the patron saint of animals). White writes:

The greatest spiritual revolutionary in Western history, Saint Francis, proposed what he thought was an alternative Christian view of nature and man’s relation to it: he tried to substitute the idea of equality of all creatures, including man, for the idea of man’s limitless rule of creation (White Jr., 1967).

As mentioned, the view articulated above need not apply to individuals who classify themselves as “Christians”. Rather, it applies to anyone who adopts the key beliefs that Christians are said to adopt. Put more abstractly, consider the following theory:

Metaphysical Dualism objects are composed of two different types of stuff, souls (minds) and matter. Part of White’s account of why the Christian religion bears some responsibility for today’s environmental problems has to do with how Christianity conceives what human beings and animals are made of. Human beings are dualistic. That is, they are composed of two different types of stuff: souls/spirit/mind and matter. In contrast, animals are composed of mere matter.

---

1(White Jr., 1967). See Genesis 1:26, 28 (King James Bible): “And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth. [...]. And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it.”
3.3 Corrupted Human Beings

**Importance of Souls** the only thing that requires respect (or moral consideration) are spiritual things

The claim is that the Christian view makes it morally permissible to use nature in whatever way it sees fit and this (along with industrial technology) is responsible for our current environmental problems.

But there are a number of alternatives to the above view. First, we might claim with St. Francis and that animals are composed of both kinds of stuff: spirit and matter. Such a view is known as “animism”. **Animism** is the theory that animals, plants, and other natural phenomena (e.g. mountains) are not mere matter but have souls or are spiritual. Animism is extremely prevalent among indigenous people. This alternative would reject the Christian claim that human beings are radically different from nature (and uniquely similar to God) insofar as humans are the only spiritual beings. And, insofar as it is assumed that spiritual beings are worthy of respect, human beings are no longer permitted to run roughshod over nature.

Second, we might hold onto the Christian (dualistic) worldview but reject the idea that since animals (or natural objects) lack a soul, mind, or consciousness, they are not deserving of respect.

**Further Thoughts**

Animism is a theory that states animals, plants, and other natural occurrences are not just mere matter but contain a spiritual essence. In contrast to animism is the “…Christian claim that human beings are radically different from nature (and uniquely similar to God) insofar as humans are the only spiritual beings.” This claim is incredibly ignorant and pompous. Assuming that God exists, God also created the animals, plants, and other natural occurrences. People are not “radically different from nature”, we have countless commonalities with nature all together, specifically animals. Humans have homologous structures with majority of the animal kingdom. **Homologous structures** are similar structures or genes that two or more species share. For example, a human arm and a cat’s leg both have a larger upper part made up of the humerus and a lower portion which is made up of two bones: ulna and the radius.

In addition to asserting a radical difference between humans and animals, an additional claim is that only “spiritual beings are worthy of respect.” This claim is false for animals most definitely should be respected. All animals, besides the sponge, have a nervous system which means they are able to feel pain. In addition to the capacity to feel pain, animals can also experience complex feelings. It is plain to see when someone kicks a dog, the dog will most likely express a sight of hurt, shock, sadness, and possibly anger.

Figure 3.3 is an image of my pet cat, Bengal. The majority of people with pets know that their pets have a personality and can have complex emotions. Figure 3.3 supports my position because it shows that Bengal is experiencing the emotion of happiness. He is smiling and giving me a nose kiss. I hope anyone who loves their pet believes that their pet is not a soulless robotic creature. – Niki Thomson

**3.3 Corrupted Human Beings**

In a previous lesson, we examined two different explanations for current environmental problems. First, we examined the idea that the modern materialistic attitude is to blame. Second, we considered the idea that a particular Christian view of the nature of human beings and animals was to blame. In this lesson we consider a third explanation. Namely, we examine the view that there is something wrong with human beings in general. Second, having outlined three possible explanations for contemporary environmental problems, we consider...
whether knowing the cause of environmental problems is, in any way, useful for dealing with said problems.

Let’s suppose that the blame for today’s environmental problems falls neither on us modern folk nor on any particular culture. A third explanation for the cause of environmental problems puts the blame on human beings. The claim then is human beings are somehow corrupted in a way that leads them to act in a way detrimental to the environment.

<table>
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<tr>
<th>Definition – Corrupted Humans</th>
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<tbody>
<tr>
<td>Human beings have certain characteristics that make them act in a way that is detrimental to the environment.</td>
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</table>

There are, however, two different ways of understanding this claim. First, the charge might be that human beings have certain essential properties that lead them to behave in ways harmful to the environment (subsection 3.3.1). The second is that human beings have a set of accidental properties that lead them to behave in ways harmful to the environment (subsection 3.3.2).

### 3.3.1 Essentially Corrupted Human Beings

An essential property is a property that something must have in order to be what it is. Somewhat trivially, an individual human Jon must have the property of being human in order to be human. Less trivially, we might say that a human being must have a working brain and heart in order to be human. In contrast, an accidental property is a property that something happens to have but could nevertheless lack. Hair, for example, is something that most humans happen to have but could nevertheless not have.

<table>
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<tr>
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<tr>
<td>Human beings have certain essential properties that make them act in a way that is detrimental to the environment.</td>
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In saying that human beings are essentially corrupted, what is being asserted is that there is some essential, hard-wired, fundamental property that belongs to all (or most) humans that is underlying cause of a wide variety of environmental problems. What sort of property (or set of properties) might these be?

- selfishness
- laziness
- greed
- conceitedness
- materialistic

<table>
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<tr>
<th>Further Thoughts</th>
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| Human beings are known as the most intelligent creatures on Earth. Why is it then that we are destroying our planet through pollution? It is because humans are essentially corrupted (see Belshaw, 2001, p.30-31) for more on this issue). To say that someone is “essentially corrupted” in this context means that they are naturally born with properties that will lead to harm them to the environment. Traits like selfishness, greed, and laziness were once used to ensure human survival. In a time where resources were scarce, these properties were essential. With the advancement of technology these traits are no longer needed. For example, before the modern era greed was used when gathering food. Food was not as easy to come by, so whenever the opportunity arose
they had to get as much as they could. This was not harmful to the environment because there were not as many humans and they did not have the technological advancement to collect large amounts. They could not do it to a great magnitude. Now in the modern age greed is seen in a much more negative way. A greedy CEO may do anything in order to beat out competitors. To increase their profit he may cut corners by pouring waste into a nearby stream. Wildlife will die, and an ecosystem will be destroyed. This will help him in the short run, but it will damage the environment in the long run.

In Figure 3.5 you can see a cardboard box sitting on the ground near a trashcan. This displays the laziness of human beings in two separate ways. First off, the person was too lazy to put the box in the trashcan. It was only a few steps away, but for whatever reason they chose to put it on the ground. Second, the cardboard should really have been recycled. Walking into the nearby building and putting it in the recycling bin would have been easy. Instead, they harmed the environment to save themselves a minute. Humans are essentially corrupt, and the chances of them changing are slim.

–Ryan Kirby

In saying that the property is essential and that this property is the cause of environmental problems, what is also being asserted is that there is only one way to overcome said problems. Since the property is integral to the human species, it is not something we could conceivably change as we might change our religion, or our economy, or our political regime. The human beings is a cancer to the environment, and so the only way to lessen environmental problems is to depopulate the planet or to remove (or fundamentally alter) the human species altogether.

Further Thoughts

Human beings are sometimes blamed as a cause to our current environmental problems. The reasons range from greed to a general disinterest in the environment. Although humans have impacted the environment in a large and damaging way, there are at least two reasons why human beings are not wholly to blame for all of the environmental problems. First, we are also very proactively trying to fix our mistakes. For example, consider Rothrock State Forest (see Figure 3.6). This area was proposed and set aside by Joseph Rothrock because of the rapid depletion to forest land. During the 1930’s there was a massive debris clean-up done throughout the understory of the forest. This State Park, along with many others, shows that human beings understand that they have a large impact on the land, and that it is their responsibility to take care of it.

Second, other non-human factors are responsible for environmental problems. For example, humans are sometimes blamed with the extinction of the woolly mammoth, but changes in climate play an equal role in their extinction. The woolly mammoth thrived in the icy conditions of the ice age and was able to populate a large portion of the northern hemisphere. As the ice age came to close and the climate changed from warm to cold to warm again, the woolly mammoth was not able to adapt like its relatives (Asian elephant and African elephant) and disappeared from the earth. In short, if the earth had not heated up, the mammoth would still be in his prime ecosystem. Finally, various organisms have gone extinct even before human beings existed, e.g. dinosaurs went extinct millions of years ago.

–Chris Evans

Figure 3.6. Rothrock State Forest

Question: What do you think of the charge that human beings are innately predisposed to cause environmental problems?

3.3.2 Contingently Corrupted Human Beings

A second, more moderate charge is not that human beings are essentially corrupted, but that they have some accidental property that is the underlying cause of all (or most) of the environmental problems.

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<th>Definition – Contingently Corrupted</th>
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<tr>
<td>Human beings have certain accidental properties that make them prone to act in a way that is detrimental to the environment.</td>
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The charge here is that human beings have certain non-essential characteristics that lead to the majority of environmental problems. Such characteristics are accidental in that we happen to have them, but it is possible that we could also lack them. Two examples of such characteristics are the combination of laziness and ignorance.

As an example, consider a smoker who decides to dispose his or her cigarettes by tossing them on the ground. The smoker reasons that it is better to toss the cigarette on the ground because the filter is biodegradable and cigarettes are only small pieces of litter so they do not have a serious environmental impact. In addition, the smoker recognizes that it is easier to throw the cigarette on the ground than dispose of it appropriately.

The environmental problems associated with cigarette waste are said to be the result of two properties in the smoker: ignorance about the effects of littering and laziness. Neither, however, are essential properties. They are instead properties that the smoker happens to have, but could, with education and motivation change.

While the above explanation for the underlying cause of environmental problems likely has some truth, it does have some problems. First, Belshaw argues that this this moderate explanation exaggerates the role that human beings have in the creation of environmental problems Belshaw (2001, p.32). He contends that a number of environmental problems can be attributed to non-human, natural phenomena. Volcanoes can cause forest fires, meteors can wipe out species, and while human beings play a role in global warming, some of this is due to natural events.

Second, the argument might be criticized for being overly vague and unsatisfying. Even if human beings are the primary cause of most of the environmental problems, the claim does not identify exactly which contingent property (or set of such properties) humans have that are the root cause of the majority of environmental problems. Is it ignorance, laziness, greed, globalization, advertisers, media, public education?

Further Thoughts

It is important to consider the causes of environmental problems. One such cause, which goes above the labels of religion or politics, is that human beings have underlying properties in their nature which cause environmental problems. When considering this cause one has to judge whether humans are either essentially corrupt or contingently corrupt beings, the former supposing there are inherent human characteristics causing damage to the environment as if there were malicious intent whilst the latter supposes there are parts of human nature that may accidentally lead to humans acting in detrimental way towards the environment.

The rise of climate science and environmental activism on for the last 40 years supports the idea that humans cannot be inherently corrupt. If humans were inherently corrupt, they would remain unconcerned with their detrimental effect on the environment and we would not observe attempts to rectify the damage done to the environment.

However, there is sufficient evidence that some accidental properties of human nature are to blame. For example, ignorance and laziness with regard to recycling would lead to someone throwing their plastic bottles and aluminium cans in the trash rather than recycling even though recycling would be beneficial to the environment. This does not mean we cannot change this about our nature; we would just have to actively participate when it came to throwing out our trash or wider environmental problems.

Belshaw argues that environmental catastrophes occur outside of human influence, such as volcanic eruptions or coastal erosion suggests humans can not be entirely to blame. He also points out the duality of human nature, in the sense that for every bad action there is likely a counteractive good action means that humans cannot be entirely...
Belshaw’s argument for humans doing good as well as bad for the environment can be furthered to account for active positive behaviour taken on behalf of our environment. The desire to benefit the environment has begun to outweigh the lack of care that may arise from accidental properties of human nature. Take for example the People’s Climate March in New York on September 21st 2014 (see Figure 3.7); over 400,000 people actively took part in raising awareness of climate problems. I believe this goes to show that with developing understanding of our climate and the problems associated with human interaction, many people are more willing to set aside accidental properties, such as laziness, as they begin to understand the scope and danger of damaging the environment. – Prudence Bateson

3.4 Why Care About Causes?

We have considered three explanations for our current environmental problems (the modern materialistic attitude, a particular fusion of Christian metaphysics and technology, and the idea that human beings are fundamentally corrupted. In each case we can question whether these accounts are sufficiently nuanced or detailed enough to be satisfying. However, we might take an altogether different approach to the inquiry into the underlying cause (or origin) of current environmental problems. This attitude is why care about causes at all?

At first blush, this attitude might seem to express a blanket disregard for the seriousness of environmental problems themselves. But, it need not. Consider the following objection:

**Objection 1.** Knowing the cause of an environmental problem doesn’t matter. What matters is how to prevent, counter, offset, reduce or halt these problems.

Let’s consider an example that might support this objection. Suppose Jon is a car accident and his shoulder is separated. The ambulance arrives at the scene of the accident and takes him to the emergency room. At this point, the doctor or nurse probably does not need to know how he separated his shoulder. In order to treat Jon’s shoulder, it isn’t necessary to know how Jon injured his shoulder. He could have been playing hockey; he could have slipped on the dance floor; he could have injured it jumping off the roof of his house. What is important is identifying what the problem is (the loss of functionality and pain from having a shoulder separation) and how to best remedy that problem.

Reasoning analogically from Jon’s situation to environmental problems, we might say that identifying the underlying causes of some environmental issue (global warming, rampant littering, pollution, etc.) is unimportant. Rather, what is important is identifying what effects that problem is having on different parts of the environment and how best to remedy those effects. In other words, whether the cause of environmental problems is found in the modern attitude, or religion, or human nature does not matter. What matters is how we remedy the mess we are in.

But consider (see Belshaw, 2001, p.35) that in some situations it is necessary to identify the cause in order to remedy the situation.

For example, let’s change poor Jon’s situation. Suppose that Jon is training for a marathon. Midway through his training he develops a pain in his foot and a specialist identifies it as plantar fasciosis (an injury to the connective tissue in the foot. If you pull your toes toward your shin and then move your fingers from the middle of your toes toward your heel, you can feel the plantar fascia).
Now there are a number of ways that Jon’s malady might be treated, but these different treatments are relative to the cause of Jon’s injury. If Jon is overweight, his additional weight may be the cause of his foot pain. In which case, it might be advisable for him to lose weight. But, of course, this would not be a good suggestion if Jon is underweight. If Jon has certain biomechanical issues (e.g. flat feet), he might be advised to wear shoes with supportive insoles. But, again, this would not be good advice if Jon has excellent biomechanics as this extra support might cause other injuries (e.g. knee problems). If Jon has tight calves or poor flexibility, he might be advised to take up a stretching regimen.

In short, it is not the case that our causes do not matter for our understanding of the cause of Jon’s injury will guide what treatment he should adopt.

Analogously, if sea turtles are dying in droves, we may wish to remedy this problem by increasing their numbers. But we cannot create sea turtles like toothbrushes and perhaps understanding why they are dying out will help us decide how to increase their numbers. If we think the sea-turtle population is declining because of over-hunting, we may prescribe one remedy, but if it because their habitat is now home to a hotel or the waters are too acidic from pollution, we will adopt another.

In short, an investigation into the causes of environmental problems is an important endeavor for identifying the cause helps narrow down the field of acceptable ways to deal with the effects of the problem.

3.5 Summary

What is the underlying cause of current environmental problems? Thus far, we have considered three different possible answers: (i) the modern materialistic attitude, (ii) a fusion of Christian philosophy and modern technology, and (iii) some hard-wired or circumstantial characteristic of human beings as a species. Each of these answers, however, is problematic in some way. A kind of materialistic or self-centeredness seems equally applicable to past generations. Characterizing Christianity as unconcerned with animals or nature treats Christianity in a kind of narrow way. And, not all environmental problems can be laid squarely on the shoulders of human beings.

But while our exploration into the underlying cause of environmental problems has not resulted in some definitive answer, it was argued that identifying and investigating such causes is nevertheless important as knowing the cause assists in the search for possible solutions.
Chapter 4

Solutions I: Democracy and the Market

In a previous chapter, we said that one possible contribution of philosophy to discussions concerning the environment was that philosophy could help to clarify certain key concepts concerning the environment and that that philosophy could potentially provide answers to questions concerning the environment that hinge on values. In the chapter 3, we investigated the possibility of their being some deep, underlying, and fundamental cause of all (or at least the majority) environmental problems. In chapter 4 and chapter 5, we explore several approaches to solving environmental problems. In particular, the focus turns to different possible answers to the following question:

Environmental Solution Question (ESQ): What should we do to lessen (or eliminate) environmental problems?

4.1 Skepticism and Subjectivism

Let’s distinguish between three different types of questions.

1. Questions that have objective answers and we know the answer.
2. Questions that do not have objective answers.
3. Questions that have objective answers and we don’t know the answer.

Examples of questions that have objective answers that we know are obvious enough, but let’s consider a few examples anyway.

1. What is the sum of two integers (e.g. 2 + 2)?
2. What is the color of some particular crayon? (assume we are pointing at the crayon)
3. Who was the first president of the United States of America?

Each of the above questions are questions that we can give true (or false) answers to and that we are confident that such answers are not simply a matter of personal opinion. Instead, there is something (some fact, some object, some convention) that makes the different answers true or false (a truth-maker or fact).

There are some questions of the second variety that are easy to identify. These are questions that are meaningless or that we would straightforwardly agree
has no answer. For example,

1. Who was the first Queen of the United States?
2. What is the largest number?

However, there are some questions that it is difficult to distinguish whether they are a species of the second or third variety. For example,

1. Is there a smallest particle?
2. Where is the best pizza in the world?
3. Is there a beginning to time?
4. Is there life after death?

Many of these questions at least appear to be meaningful but they are either so complex that we have yet to answer them, are too complex for our species to ever answer, or because they simply have no answer.

4.1.1 The Skeptical Solution

**Environmental Skepticism (ESkep):** While people have a number of beliefs about what ought to be done, we don’t know what we should do to lessen (or eliminate) environmental problems.

The environmental skeptic contends that at least at this point, no one knows what should be done concerning various environmental problems. Such a position is not inconsistent with the possibility that there being an answer to ESQ, perhaps a lot of additional information is required and a lot of further philosophizing is needed. Instead, ESkep simply states that currently no one can be said to know what that answer is.

4.1.2 The Subjectivist Solution

Another response to ESQ is not that no one currently knows how to solve environmental problems but that no one can know what we ought to do about any given environmental issue.

**Environmental Subjectivism (ESub):** While people have a number of beliefs about what ought to be done, there is no objective fact concerning what we should do to lessen (or eliminate) environmental problems.

Environmental subjectivism contends that proposed answers to ESQ are misguided attempts to answer a question that simply cannot be answered. There are at least two versions of this theory. First, ES might be a form of extreme subjectivism in that it claims that there are no objective facts about anything. Such a view might contend that objectivity is an illusion or that existence or reality itself is illusion. We will put this position aside. Second, a weaker form of ESub contends that while some questions can be answered (e.g. a variety of questions in math and science) there can be no answer to ethical questions as there is no objective fact concerning what individuals ought to do in any given situation.

How ought questions of this variety be understood? One suggestion is just to treat questions of this variety akin to ones concerning taste. For example, consider the question “Where is the best pizza in the world?” Many people would, however, reject this idea that there is some definitive property or set of properties that make one pizza better than another. Instead, they think that a good or bad pizza is determined entirely by personal (not some objective) taste.
4.1 Skepticism and Subjectivism

Returning now to the Environmental Solution Question ESQ, the environmental subjectivist regards ESQ like questions about one's favorite pizza. If an individual proposes a solution, they cannot be said to be right or wrong. Rather, they are simply expressing what they would like to happen or what their personal preference would be concerning the matter.¹

Although this position strikes many as counterintuitive, a case can be made for it. One reason supporting the idea that there can be no objective fact concerning ethical issues is that there seems to be more widespread disagreement over such issues concerning value.

Table 4.1. Moral Proofs Are Not “Proofs”

| P1   | All proof is scientific proof. |
| P2   | All scientific proof involves some kind of direct, empirical verification that can be quantified (if the claim is there is 35,304 trees in State College, we prove this by counting all of the trees in State College). |
| P3   | Proof for moral propositions does not have direct, empirical verification that can be quantified. |
| C    | Therefore, there can be no proof of a moral proposition. |

Table 4.2. If you prove something, it follows that the conclusion is absolutely certain.

| P1   | Propositions in science are proven to such a degree that we can say they are known with certainty (or at least a high degree of certainty). |
| P2   | Propositions in ethics are not proven with the same level of certainty. |
| C    | Therefore, there can be no proof of a moral proposition. |

Question: What do you think? Is there some objective fact that makes answers to the environmental solution question true or false or is everything just a matter of opinion?

For more on ethical subjectivism (as well as a discussion of cultural relativism), see Moral Relativism and Ethical Subjectivism.

¹“Ethics, like beauty, is in the eye of the beholder. The argument I am proposing is that there is no objective fact that genocide is morally wrong anymore than there is an objective fact that rock and roll is better than country music. Both statements, no matter how well agreed-upon by most people, merely express the opinion of the people who state them. They do not refer to some “state of the world”, and that is exactly what an objectivist theory of ethics requires of ethical statements.” – Keith Augustine “In Defense of Moral Subjectivism: An Argument for the Subjectivity of Moral Values”
Second, it is possible to reject the validity of the argument. Even if we accept P1 and P2, it does not follow that because there is less certainty in ethics that no certainty at all can be had.

A third argument in support of ESub is that scientific statements/theories are well-established but there are a host of ethical issues that there is much debate. Issues like the death penalty, abortion, stem-cell research, and so forth come to mind and debate concerning these issues seems to be interminable. Thus, given this range of disagreement, the conclusion is that there is no objective fact concerning environmental issues.

However, when people think of proving something in ethics, they often think of “hard cases”. There may be some people who doubt global warming, but these individuals tend to be ignored by the community of scientists. However, there are a bunch of “hard cases” in the sciences about which there exists genuine debate. String theory and loop quantum gravity are two opposing theories that try to unite quantum mechanics with general relativity. Both are proven in the sense that a lot of information supports these theories but neither is “proven” in the sense that they lack rivals. The same is true in ethics. Some ethical views are well-established. There is little controversy and debate about the claim that it is wrong to kill people for no good reason. This proposition is accepted as though it were certain. However, there are a bunch of “hard cases” in ethics (e.g. abortion) about which there is a lot of controversy. However, our focus in ethics tends to be on the hard cases and this tends to make us think that there are no moral facts (no true moral propositions).

4.2 The Legal Solution

A second possible answer to ESQ is to let the law decide. The solution goes something like this:

The answer to what we should do to lesson (or eliminate) environmental problems is to follow the law. If it is legal to cut down trees, to pollute rivers, or to litter, then it is acceptable to do it. If it is illegal to cut down trees, to pollute rivers, or to litter, then it is not permissible to do these things.

There are at least three objections to this solution.

**Objection 1.** Let’s say that there are two countries A and B. A is located at a higher elevation than B and there is a river that flows from A to B. Suppose that country B adopts strict environmental regulations about what can and cannot be dumped into the river. According to the solution above, it would be wrong for anyone in B to pollute the river. But now let’s suppose that the laws in country A are much more lax. Individuals are permitted to dump toxic waste at the border between A and B. To add to this, let’s suppose that A’s dumping of toxic waste into the river causes serious health problems for the people of B.

The problem with the legal solution is that it is too narrow. Many environmental problems are global problems and so they cannot be neatly circumscribed within the geo-political boundaries of a country. The laws of A and B don’t extend beyond the confines of their respective territories and so it is unclear how to settle an environmental issue of international scope.

Of course, we might consider several ways of solving this problem, e.g. creating an international law. But, this objection at least shows that the legal solution
is not as straightforward and simple as it appears on first glance.

**Objection 2.** Intuitively, some actions that are legal are nevertheless bad.

Let’s consider a few examples. Suppose that it is legal to curse at elderly people or children (provided you do not threaten to physically harm them). While it may be legal to launch a stream of expletives at young children, many would argue (i) you should not do this, (ii) doing this would not be practical (e.g. someone might attack you), and (iii) doing this would not be appropriate (your action would be regarded as a form of legal wrongdoing). In short, the very fact that a particular activity is not a criminal act does not mean that it is acceptable.

Analogously, supposing that it is legal to litter does not mean that this is morally acceptable.

Currently, there is no law prohibiting you from driving around the neighborhood for no reason just to waste gas, but intuitively this does not mean what you are doing is morally permissible. More generally, just because there is no law that prohibits a corporation or industry from taking a less environmentally friendly approach does not mean that doing so isn’t a bad action.

**Objection 3.** If laws were an infallible guide to what we ought to do, then we would not expect them to radically change. But, laws do seem to radically change. Therefore, laws cannot be an infallible guide to solving what we ought to do about environmental issues.

The Jim Crow Laws of the 19th and 20th century were laws that permitted segregation in the United States, but such laws were ultimately recognized to be fundamentally wrong and thus were rightfully repealed by things like the Civil Rights Act of 1964 and the Voting Rights Act of 1965.

One response to this objection is to argue that while the laws of the days of old were clearly mistaken, our current laws give us a clear indication as to what we should do with respect to environmental issues. Such a response, however, assumes that our current laws won’t change. But such a responsible seems to ignore that many laws are currently be in flux (e.g. laws surrounding breastfeeding in public, marijuana possession, public nudity, and homosexual partnerships).

### 4.3 Voting Solutions

Let’s assume that an objective solution to environmental problems exists (i.e. that subjectivism is false) but that simply relying on what the current law dictates isn’t an available option. Another solution contends that the root of the majority of environmental problems is found in the political system adopted. One hypothesis is that environmental problems are mostly due to bad governmental policies pushed forward by interest groups which aim to benefit a select few at the expense of others (including natural things). One proposed solution then is that adopting a different, more democratic form of government will lead to the eradication (or at least the decrease) of environmental problems.

The argument in Table 4.3 requires some clarification. First, the conclusion is not that an increasingly democratic system of a government will solve all environmental problems. Rather, it contends that an increased commitment to democracy will result in fewer (or less severe) environmental problems. Second, the argument is not that whatever a democratic system decides is the infallibly

**Question:** Is law a good guide for what we should do with respect to environmental problems?

**Question:** Do you know of any laws concerning environmental issues that permit individuals to do something that might be considered morally wrong?

**Question:** Assuming that not recycling is morally wrong, should we enact laws to make it against the law not to recycle?

**Video:** Consider the following case made by Ethan Nadlemann that prohibition (or war) on drugs was motivated by racist beliefs The Racist War on Drugs.
P1 Environmental problems are caused by groups that pursue their personal interests at the expense of public interests.

P2 Non-democratic political systems allow for the greater pursuit of personal interests over public interests, whereas democratic systems tend toward the pursuit of the greater good.

P3 There are more environmental problems in non-democratic countries.

C Therefore, environmental problems can be lessened through an increased commitment to the democratic process and fewer environmental problems in democratic countries.

Table 4.3. Argument for a Voting Solution to Environmental Problems

correct answer to any given environmental problem. Rather, the intent of the argument is that a democratic form of government provides the most reliable (and best) method for dealing with environmental problems.

Of the different democratic systems, it is worthwhile to distinguish two. First, there is what is known as a direct democracy (a system where all issues are settled by majority vote). Second, there is what is known as a representative democracy (a system where representatives are elected and issues are decided by these representatives).

Whatever the system, the purported benefits of adopting a more democratic system are said to be achieved by hindering groups that might aim to exploit some part of nature for their own benefit (rather than the good of all).

There are several objections to consider with respect to the argument in Table 4.3.

**Objection 1. Who Should Vote?** One problem for the democratic approach is determining who ought to have a vote (i.e., who counts).

1. Environmental problems can have both a global and more distinctly regional impact. But when deciding on how to vote on some environmental issue, we may want to say that some individuals should not have a say in matters that they are far away from. For example, if individuals of a community wish to clear a forest (but have plans on replanting the same number of trees in another part of town), the issue seems regional rather than national or international. For this reason, we think that not everyone should have a say on an issue that does not impact them.

2. Intuitively hold that individuals who run the greatest risk should have a greater say concerning some environmental decision (e.g. if you are going to build a nuclear reactor in my backyard, I think my voice should matter more than someone living 500 miles away). Yet, the negative effects of many environmental problems will be experienced most directly by future generations. There is thus some reason to think that future generations should have an equal, if not greater, say in our environmental decisions. Practically, they could be given a vote by determining how many people might exist at some future date and then using our best judgment about how they might vote.

However, many find this approach counter-intuitive as it awards votes to non-existent beings.

3. Environmental problems inflict harm not only on people, but also on non-human parts of the environment, e.g. animals, rivers, mountains. Some individuals contend that just as non-human beings should have

**Video:** For an example of a direct democracy, see [Video on Switzerland’s direct democracy](#).
as much a say in how we treat the environment as human beings (e.g.,
the decision to clear a forest should take into account the beings that
live there). Practically, we could give animals a vote by using our best
judgment about how they might vote on any given environmental issue.

However, many find this approach counter-intuitive as they contend that
animals should not have the same say as humans when it comes to deciding
environmental matters.

Objection 2. How Should We Vote? The argument does not specify what
criteria individuals should employ when voting. First of all, there is nothing
about our beliefs as a collective that guarantees their veridicality (their likelihood
to be true). Many of us are often mistaken, influenced by media and corporate
propaganda, or severely lacking in information about environmental issues.

But let’s suppose our group of voters is fully informed about every environmental
issue (an idealization of our actual situation). Even with this assumption it
isn’t clear how individuals should vote on the basis of this information. If I am
in a direct democracy, should I vote for what is best for the collective, what
is best for me as an individual, or what will benefit me here and now? If I
am in a representative democracy, should make decisions be based upon what
ey think is best for their constituents or how they think the majority of their
constituents would vote?\(^2\)

In other words, if a democratic solution is to plausibly reduce the severity and
number of environmental problems, presumably voters need to vote in a rational
way according to criteria that would likely yield environmental benefits. But
different ways of specifying how voters should vote either make the democratic
solution implausible (e.g. if individuals vote purely on the basis of whether
or not something benefits them, then individuals may be less likely to care
about environmental issues that occur in far away lands or that seem to be
of minimal concern to them) or situated the true solution to environmental
problems in everyone adopting some particular ethical attitude. For example,
we might say that they should vote for what increases the total amount of
pleasure irrespective of how that pleasure is distributed for as many living
individuals as possible.

It appears that if the democratic solution is to be a preferred solution, several
philosophical issues have to be decided. First, there is the metaphysical, social-
political question of determining what types of beings should be allowed to
vote on any environmental issues. Second, democracy, in its actual form, seems
highly unlikely to solve any environmental problems; in its idealized form, the
democratic solution assumes voters are operating according to certain ethical
rules (in which case it is the ethical theory that is the real solution).\(^3\)

Further Thoughts

One proposal for how to solve (or significantly reduce) environmental problems is
by adopting a democratic system, i.e., voting may be a solution to combating or at

\(^2\)Opinion polls show that groups of individuals change their mind and so morality is subject
to the whims of a fickle populous. Consider the following Gallop poll concerning gay and
lesbian rights: Gay and Lesbian Rights Gallop Poll.

\(^3\)Furthermore, there are problems with the idea that some form of broad voting scheme is
the only practical alternative. A variety of matters are not determined by casting ballots or
opinion. Scientific matters are determined by scientists familiar with scientific methodology
(even if much of science is guided by funding). And, while the guilt of the accused may be
decided by a jury of one’s peers, this decision is cultivated by jury selections and instructions,
and even the jury’s decision can be overturned by appeal.

Figure 4.1. This squirrel from the Sidney Friedman Park, who is surrounded by litter,
has no say in what goes on in his habitat and must live with the decisions made by humans
the very least lessening environmental issues. This proposal suggests that democratic nations have far less environmental problems than those countries without a democratic political system. It does not propose that this specific idea is the be-all end-all for eliminating environmental issues, but that democracy is the means to a reduction of said issues.

There are at least two problems with this proposal. The first is regarding who can and who cannot vote on these certain issues. The problem here lies in the fact that in a democratic system, at least in the United States, all individuals over the age of eighteen can vote. Therefore, uninformed individuals who have no knowledge or concern over these environmental issues can add their contribution to the mix. In conjunction with this idea, individuals whose everyday lives are impacted directly by the environment, such as animals and the humans of future generations, are not permitted to vote. Recently, in my beautiful home in Lancaster County there had been an uproar over a decision to run a pipeline through thirty-five miles of wildlife, including a wildflower nature reserve. The local decision makers decided to build a pipeline, and while this pipeline does not disturb their homes, it displaces thousands of critters, insects, and plant life (who cannot vote) from their homes (see, for example, Figure 4.1).

The second concern in regards to voting being a solution to end environmental problems stems from how people choose to vote. Some individuals choose to vote on the basis of what is best and easiest for them as individuals. However, this selfish basis for voting is potentially one of the reasons for many of our environmental problems (section 3.1). What is problematic then for the democratic solution is that if it is to enact positive environmental effects, then individuals sometimes need to vote in a way that is beneficial to the environment but counter to their personal interests. However, in imposing criteria on how individuals should vote, we seem to be deviating from away from core idea that individuals voting in whatever way they wish will solve environmental problems.

Although a democracy has led this nation in a number of important issues, it does not seem practical to use it as the method for solving the current environmental concerns.

– Sarah Anderson

4.4 Market Solutions

In the previous lesson, the idea that environmental problems ought to be solved by a shift toward a more democratic form of government was explored. A number of criticisms of this view were raised. One outcome of this discussion is that the democratic solution seems to presuppose the difficult question of “who should vote” and seems to assume that those who are voting are “voting correctly”. The problem with this modification to the democratic solution is that it does not explain what we want to know, namely how individuals ought to vote.

Before we consider solutions that offer an explanation of how individuals ought to vote (chapter 5), another solution is proposed. Consider that one problem with adopting a naive democratic system where every individual has a say in the matter is that votes are weighted equally (irrespective of whether or not it is of any concern to the voter). If you and I are trying to decide some important matter X, but X is of no concern to you, but it is of great importance to me, we nevertheless have the same say in the matter. This is problematic as it allows majority opinion to outvote minority opinion in issues that aren’t of much concern to the majority but are of critical importance to the minority.

Let’s consider an extended example. Suppose you live in a community that has a direct democracy. All sorts of different issues are decided by voting, but very few of these concern you so much that you would vote one way or another. Tax hikes? Any inconvenience but one you are willing to live with. Building a new swimming pool for the high school? You don’t have kids, it is no benefit to

Open Question: Can some sort of democratic voting system tell us what we should do for some particular environmental problem?
4.4 Market Solutions

you, but you are willing to bear the burden. On most issues, you are willing to
go whatever way that the rest of your community decides. You could vote one
way or another, but your interests lie elsewhere. But now consider that there
is an issue that is of importance to you. Your community wishes to uproot a
small patch of forest near your property. You frequently visit this little patch of
forest with your children. You delight at the bunnies hopping in and out of the
thick brush and walking along the path eases your stress from your fast-paced
job. But a group of local residents wish to clear the brush (and thereby evict
the bunnies you so love) and lay down mulch and plants that will be replanted
each year.

This is an issue of concern for you. When you go to vote against the proposition
to uproot this little plot of forest, you find yourself pitted against a group of
individuals who vote regularly on issues that are of no concern to them. You
make your case for the forest, you give arguments for why it should be preserved
as it is, but the voters don’t care. They aren’t interested in the bunnies. They
aren’t interested in the happiness the forest brings you. They wish to vote
against you in the hopes that they can pick the flowers that will be replanted
on top of the graves of the dead bunnies.

What’s problematic about this scenario is that, intuitively, we think your vote
should count more in this matter. By not voting, you’ve agreed to go whatever
way the community wants for years. You’ve paid more taxes when you’d rather
have kept the money. You helped fund the high school swimming pool but you
don’t (and can’t) make use of it. But, when there is an issue of real importance
to you, your vote is worth no more than anyone else’s.

The above example strikes many as producing the wrong result, but how can we
correct it? In this lesson, a solution to environmental issues is proposed that does
not weight all votes equally. Instead, it aims to weight votes by an individual’s
willingness to pay. In this lesson, we explore the idea that environmental issues
are best solved by the free market (i.e., an economic system where the price of
goods and services is set freely by buyers and sellers).

4.4.1 The Simple Market Approach

Consider the following solution to environmental problems:

Simple Market Solution (SMS): In order to lessen (or eliminate)
environmental problems, we should allow (and protect the right of)
buyers and sellers to consent to prices about goods and services.

Rather than allowing each individual a vote on any issue, the SMS contends
that decisions ought to be determined in accordance with the degree of concern
that an individual has in an issue. The SMS solution suggests that in order to
measure the extent to which an issue matters to some individual, it is sufficient
to simply calculate how much they are willing to pay in order to get their way.
Rather than allowing everyone equal say about every issue (whether it concerns
them or not), an individual’s say varies depending upon how much they are
willing to sacrifice in order to have some event occur.

How might SMS solve the earlier problem concerning the uprooting of a small
forest? The problem with the earlier voting procedure is that a contingent of
individuals are willing to vote to replace a small forest with a manicured green
space, but the assumption is that the vote costs them nothing. If, by contrast,
they were required to pay to remove the forest and maintain the green space,
they might be more hesitant to do so. By contrast, since the small forest is of
a high degree of importance to a single individual, that individual might be willing to pay in order to preserve that forest.

But not every issue is decided with personal dollars. How should the government behave with tax revenue and so forth? We might say that it should adopt the spirit of the SMS solution by engaging in a cost-benefit analysis over every issue that bears on the environment.

Cost-benefit analysis (CBA): a systematic process for estimating the strengths (pros) and weaknesses (cons) of various decisions, whether these be financial transactions or some other practical decision.

Let’s consider a simple example. Suppose we are considering two different proposals for energy production: B and C. In deciding between B and C, we consider the short-term and long-term benefits and costs of both B and C in terms of a unit of currency. Once this is complete, we simply choose the option whose benefits more greatly outweighs the costs. If nuclear energy production is cheaper (both in terms of how much it will cost the consumer and the public in terms of health costs) than coal, then that is the correct choice. If a national park would make more money by being turned to farmland, rather than by collecting the revenue of tourists, then we ought to clear the forest for farmland.

4.4.2 Objections to Market Solutions

In this section, a variety of objections are directed at the market solution.

Objection 1. Damage and harm is not always reducible to dollars and cents. Some goods (e.g. clean water, land, air) are public goods (they belong to all of us) and so they cannot be bought, sold, or traded between private individuals.

Objection 2. If we allow individuals to use or damage parts of the environment that belong to all of us, then they should have to pay to do so. But assigning the right payment is an impractical nightmare. Non-smoking-related lung disease or emphysema isn’t contracted in the same way that a blow to the head is received (a single individual striking you), but instead might be the result of a number of factors (industry, cars, trucks, public buses, etc.)

Let’s consider how a proponent of the market solution might modify his/her theory so as to deal with these objections. Namely, we might modify the market approach with either of the following two models:

R1: Control Model (Limits): The government can impose restrictions on the amount of pollution or damage that someone can cause, e.g. emissions laws on vehicles, requiring filters on industry smoke stacks, etc.

This particular model places restrictions on how the market can operate by forbidding certain actions, e.g., making it illegal to dump dangerous waste into public waters or pollutants known to cause lung cancer in the air. On this model, the government commands and controls how a company is to behave with respect to the environment by specifying what one can and can’t do. One problem with this model is that companies are only required to do the bare minimum and have no economic incentive to do anything else.

R2: Incentives Model: The government offers incentives (e.g. subsidies, tax breaks, funding) for companies to be eco-friendly.

Similar to the above Command and Control Model, the Incentives Model might provide a list of prohibited activities, but also offers incentives for environmentally friendly behaviors. For example, while the government might
place limitations on how much carbon monoxide a particular vehicle might produce, the incentives model might also offer car manufacturers tax breaks for producing vehicles with ultra-low emissions.

The above two models are initial suggestions as to how a market solutions might be modified. However, it is worthwhile to explore some examples of how the market forces might solve certain environmental problems.

First, consider **water consumption and conservation**. There are a number of different ways that individuals might conserve water (from turning off the water while shaving to water-efficient toilets). But, individuals might contend that while they know they probably should try to conserve water, they are not really motivated to do so. Market solutions create an incentive. Treating public goods like water as a kind of private resource that individuals must pay to use offers individuals financial incentives to conserve. Want to reduce your water bill? Turn off the water while you brush your teeth or shave. In addition, install high-efficiency toilets and facets!

A second environmental issue that might be solved by a market solution concerns the **preservation of sand dunes**. Sand dunes are subject to erosion and damage. One factor that lessens sand dune erosion is the presence of vegetation that reduces the effects of wind and water. However, even in a nature preserve such vegetation can be upset by human beings who veer off marked trails and trample vegetation. One way to preserve sand dunes is to treat the area as a quasi-private good. While there are a range of activities that can lessen dune erosion, e.g. creating footpaths, sand erosion might be dealt with by making the sand dune a quasi-market good. That is, the State could take control of the area that the dune occupies and then charge entry to the dune. Charging admission essentially disincentives individuals from entering, reduces the number of visitors, and thereby reduce the potential number of individuals capable of upsetting erosion-preventing vegetation.

The above two examples illustrate how public goods are not incompatible with market solutions. By treating objects that belong to all of us (water, land) as quasi-market goods that one must pay to use, we can solve certain environmental problems (or at least curb environmental harms).

**Objection 3.** Money isn’t everything. In life, there are things that are more important than money. The preservation of a species, clean water, and breathable air are more important than having gobs and gobs of cash. So when calculating the importance of a species, whether we should dump photo-chemicals into a nearby stream, or whether we should burn fossil fuels, we cannot look to how much money a given action will generate.

This objection is built on a faulty understanding of market solutions. Here is a response:

**Response 1:** Yes, money isn’t the most important thing in life, but market solutions do not say that decisions should be determined by which action makes the most money. Rather, they say that if we are trying to decide what to do about a particular environmental issue that bears on the environment, looking to how much money people are willing to contribute in order to get their way is the best indicator of the degree (or extent) to which the issue matters to them. Yes, dumping photo-chemicals into a stream might be profitable for a particular company, but it might incur significant costs on everyone else. And, people might be willing to put forward large amounts of money to stop this practice from incurring. In short, market solutions do not entail the claim that
everyone ought to do what is best for them even if it harms others.

**Objection 4.** Nature is Priceless. When market solutions weigh costs versus the benefits, they assume that we can reduce the value of something to a unit of currency. But, some things are *priceless!* Just as you cannot put a price on things like human life, love, family, loyalty to country, certain artworks and historical artefacts, you cannot put a price on the value of a species and other natural objects.

In addressing this objection, let’s distinguish between two different senses of “priceless”:

\[ \text{priceless}_1: \text{something is “priceless” when it is so valuable that no amount of money would accurately capture how much it is worth.} \]

\[ \text{priceless}_2: \text{something is “priceless” when it is meaningless or monstrous to assign its worth, e.g. “the number 1 is worth $5 million dollars.”} \]

Now let’s consider two responses to the objection based upon these two different senses of “priceless”:

**Response 1:** If the first sense is meant, then it is strange to see that many so-called “priceless” items do get bought and sold. For example, priceless artworks and historical artifacts are sold at auction. Often, someone regards something as priceless in the sense that they are unwilling to part with the item for any price. For example, a wealthy individual might regard a particular painting she owns as “priceless” as they are unwilling to sell the painting for any amount of money. But, much of this seems to depend upon the circumstances since they likely would sell that painting for a loaf of bread if they were reduced to extreme poverty.

**Response 2:** While it might seem meaningless or monstrous to evaluate the worth of a human life (or natural object) in terms of dollars and cents, we do it on a regular basis, e.g. funds are appropriated for healthcare.

**Objection 5.** Ignorant & Irrational Consumers. Appropriately priced goods and services (a perfect market) are key ingredients in a solution to environmental problems, but they aren’t the only required ingredients. If individuals interact with the market in an uninformed or irrational way, then it doesn’t matter how well the market is designed. If the government subsidizes a power source that is eco-friendly, but individuals simply don’t pay attention to which fuel source is cheaper, they may opt for the more costly and more environmentally unfriendly option. If the government tries to encourage water conservation by charging for water consumption, but individuals don’t know how to efficiently make use of water, then issues with water scarcity may continue.

In addition, individuals who are fully informed might behave *irrationally.* Natural gas may be aggressively taxed so as to encourage conservation and efficient usage, but I may decide to try to heat my residence at a whopping 100 degrees in the dead of winter anyway. I may know that gasoline is expensive but decide to drive a car that lacks fuel efficiently anyway.

**Response 1:** In order for the market solution to work, the model requires that individuals behave in a well-informed and rational manner.  

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\[ ^4 \text{As Belshaw puts this same point, “Because we are neither perfectly well informed nor perfectly rational we cannot, in fact, rely on the workings of the market to deliver optimal results. The cost-benefit approach recognizes that human failings distort market operations, with the result that we make choices that are bad for us, bad for society as a whole and bad for the environment at large” \text{(Belshaw, 2001, p.96).} \]
4.5 Summary

Individuals who may be ignorant of the cheapest and most environmentally friendly option need education, and such education may take the form of courses in waste management (for example) or by putting a social premium on behavior that is rational (rather than glorifying what might be considered stupid, inefficient, and environmentally unfriendly activity). In addition, recognizing these limitations about the members of the market might be counteracted by making certain subsidies and taxes more aggressive. For example, a rational individual might purchase a environmentally-friendly automobile when it is three or four times cheaper than its gas-guzzling, smoke-billowing, asphalt-destroying counterpart, but irrational agents might only make a similar decision if the environmentally-destructive alternative is 50X more expensive.

There are two different objections to be concerned with.

**Objection 6.** The Evil Rich. Suppose a wealthy racist was willing to put up his vast fortune (i) to fund a number of social projects and (ii) to ensure that a particular minority group remained in their current (very horrible) position. Such a result is possible given the market solution. If we assume that they are knowledgeable of various descriptive facts, e.g. the broad range of consequences that will occur given some choice, then such a solution at least allows for wealthy individuals to hunt animals to extinction. That is, I may know hunting 50 elephants a day will lead to their extinction, but I may decide to do it anyway.

**Objection 7.** Bad Consumers Let’s suppose a society where individuals are well-informed concerning environmental issues and behave in a more or less “rational” manner (they choose the best option insofar as they know what the best option is). There is no guarantee that the market solution will lessen environmental problems if individuals don’t use their money to purchase what is best for them and the collective. Thus, the market solution is subject to the same problem as the democratic solution, namely if it can be plausibly said to reduce environmental problems then it must presuppose that individuals are “purchasing correctly”. The problem with this modification to the market solution is that it does not explain what we want to know, namely how individuals ought to buy and sell goods (see Figure 5.5).

4.5 Summary

In the face of objections, both the voting and market solutions required substantial modification. In both cases, in order to get the right sort of results, it was necessary to assume something that made each solution uninformative or trivial. That is, in both cases it was necessary to assume that the individuals voting or in the marketplace were well-informed and had some knowledge concerning what is right and wrong.\(^5\)

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\(^5\)As Christopher Belshaw notes, “There is nothing of profound significance here, because the conditions for a perfect democracy, or a perfect market, just are those that give us the best outcomes. And the nature of these conditions and outcomes isn’t determined by democracy, or by the market. They are given antecedently. Without some prior moral notions we would not, for example, require of the perfect democracy that everyone has a vote, or insist that in the perfect market everyone has equal amounts to spend” (Belshaw, 2001, p.62).
How Do We Solve Environmental Problems?

Voting Solutions  Market Solutions

Assumes Ideal Voters  Assumes Ideal Consumers

Who are the Ideal Voters and Consumers?

The Ones Who Vote Right  The Ones Who Make the Right Purchases

What is the Right Way to Vote?  What are the Right Purchases?

Figure 4.3. Both the Market & Voting Solutions Presuppose But Do Not Explain a Notion of the Good

Solutions to Environmental Problems

Free Market  More Democracy  Legal Solution

Assumes Good Consumers  Assumes Good Citizens  Assumes Good Laws

Subjectivism  Skepticism

Figure 4.4. Proposed Solutions to Environmental Problem
Chapter 5

Solutions II: Moral Theory

5.1 Introduction

The Legal, Voting, and Market solutions were shown to have problems they could not overcome without appealing to some idea of their “perfect” or “ideal” members. Laws can be enacted to protect the environment or they can allow individuals permission to needlessly pollute. Individuals can vote for policies that protect the environment or they can consent to practices that needlessly exhaust natural resources. Buyers and sellers can engage in transactions that encourage the conservation and preservation, but people can also buy and sell things in a way that is deeply harmful to the environment. The presumption then is that the legal, voting, and market solutions only work if individuals do what they ought to do, but none of these solutions provides an account of how individuals ought to behave in these contexts. What laws are the good laws, how should individuals vote, and how ought goods and services be priced?

The short answer is that we ought to do “whatever benefits the environment,” but such an answer is vague, too simplistic, and impractical. The majority of individuals are not likely to sacrifice their own lives to protect the environment (although some do) nor do many of us find that this is what we ought to do since we are part of the environment that we may want to protect. In this lesson, we turn to “moral solutions to environmental problems”. These solutions aim to provide general rules for how we ought to behave in a wide variety of contexts and such rules are applicable to decisions we make concerning the environment. In short, they offer suggestions about which laws we ought to pass, how we ought to vote, how we ought to buy and sell goods, and, in general, how we should behave.

5.2 A Consequentialist-Based Solution

5.2.1 What is Consequentialist-Based Ethics?

In this section, a consequentialist based theory of ethics is presented. The theory in particular that is considered is known as “utilitarianism”. Utilitarianism is the theory that says (i) there are objective moral facts but (ii) an action is morally good if and only if it maximizes the overall amount of happiness (increase in pleasure and the absence of pain) in the world.
More precisely, classical utilitarianism is committed to three key principles:

**Consequentialist principle:** actions are judged right or wrong not in themselves, but upon the consequences or state of affairs they produce.\(^1\)

**Happiness principle:** the only relevant consequences are those that influence the happiness of individuals.

**Equality (impartiality) principle:** everyone’s happiness is of equal importance.\(^2\)

The **consequentialist principle** contends that no action is intrinsically right or wrong, actions are instead to be judged by their effects. In other words, actions cannot be judged as right or wrong in terms of the nature of that action. Killing, saving someone’s life, stealing, donating money to charity, being loyal to a friend, breaking a friend’s trust all can be good or bad actions. What matters is what consequences such actions usher forth.

The **happiness principle** contends that in evaluating whether or not an action is morally right or wrong, the only consequences that matter to such an evaluation are whether the action increases the overall amount of pleasure minus pain. “Pleasure” refers not only to the *quantity* of pleasure but also the *quality* of pleasure. Let’s distinguish between two different types of pleasure:

- **pleasures of the flesh:** short-lived feelings of elation, e.g. pleasure you get from eating a good meal
- **pleasures of the intellect:** more complex feelings that are dependent upon your “higher” faculties, e.g. the pleasure you get from being loyal to a friend or reading a good book.

At least one utilitarian (J.S. Mill) contends that the pleasures of the intellect are of greater quality than pleasures of the flesh. As these pleasures are of greater quality, they ought to count more in determining whether or not an action is right or wrong. Mill offers at least two (equivalent) arguments for why pleasures of the intellect are of higher quality than pleasures of the flesh. First, he contends that individuals who are acquainted with both of the pleasures would (more often than not) choose the pleasures of the intellect over the pleasures of the flesh. Second, Mill contends that except in cases of extreme depression human beings would never consent to be turned into a creature that was fully satisfied by the pleasures of the flesh.

> “Few human creatures would consent to be changed into any of the lower animals, for a promise of the fullest allowance of a beast’s pleasures; no intelligent human being would consent to be a fool, no instructed person would be an ignoramus, no person of feeling and conscience would be selfish and base, even though they should be persuaded that the fool, the dunce, or the rascal is better satisfied

\(^1\)As Mill writes “pleasure, and freedom from pain, are the only things desirable as ends; and that all desirable things (which are as numerous in the utilitarian as in any other scheme) are desirable either for the pleasure inherent in themselves, or as means to the promotion of pleasure and the prevention of pain.”

\(^2\)As Mill writes, “But it is by no means an indispensable condition to the acceptance of the utilitarian standard; for that standard is not the agent’s own greatest happiness, but the greatest amount of happiness altogether.” […] I must again repeat, what the assailants of utilitarianism seldom have the justice to acknowledge, that the happiness which forms the utilitarian standard of what is right in conduct, is not the agent’s own happiness, but that of all concerned. I must again repeat, what the assailants of utilitarianism seldom have the justice to acknowledge, that the happiness which forms the utilitarian standard of what is right in conduct, is not the agent’s own happiness, but that of all concerned. As between his own happiness and that of others, utilitarianism requires him to be as strictly impartial as a disinterested and benevolent spectator.”
5.2 A Consequentialist-Based Solution

with his lot than they are with theirs.”

The equality (impartiality) principle asserts that no individual’s happiness is greater than any other. This principle follows from the claim that there is nothing that has intrinsic value. What makes something good or bad is the degree to which it produces pleasure (minus pain). As such, no individual thing capable of feeling pleasure or pain can, independently of appealing to the overall quality or quantity of pleasure produced by an action, claim that he or she somehow deserves to feel more pleasure than someone else.

5.2.2 Objections to Utilitarianism

In this section, we consider a number of objections to Consequentialism (Utilitarianism). In the next, we responses to these objections in an effort to further defend the theory.

Let’s begin with following objections to the consequence principle.

Objection 1. Utilitarian accepts the consequence principle and this principle is false.

Objection 2. The utilitarian thesis allows for the ends to justify the means. This strikes us as counterintuitive when the means involve a violation of basic human rights, fairness, and justice. An argument for this objection would go as follows:

P1: If utilitarianism is true, then sometimes unjust acts would be morally permissible (e.g., convicting someone for a crime they did not commit to make people happy, harvesting someone’s organs for transplant). That is, provided it would increase the overall amount of happiness in the world (good consequences), it would be acceptable to violate someone’s basic human and legal rights (e.g. right to privacy, life, right to not be unlawfully detained, etc.)

P2: It would be wrong to convict a person for a crime they did not commit (neither fair nor just). That is, it is not acceptable to violate someone’s basic human and legal rights.

C: Therefore, utilitarianism is not true.

Table 5.1. Objection: Utilitarianism, Rights, and Justice

In short, utilitarianism is counter to our intuitions about what qualifies as good action as it requires us to do what produces the best overall outcome in terms of happiness even if the means by which we produce this happiness is horrific.

Objection 3. Utilitarianism Ignores the Past and is thus incompatible with how past actions bind future behavior (e.g. keeping promises, loyalty in relationships).

Consider the following example. After several cancelled meetings with a friend, you swear on your life that you will meet me her at 5PM at a restaurant you both like, but when you weigh the pros and cons, you find that it would very

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3 Elsewhere Mill writes “It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied.” Mill saw this feature of the theory to be a part of the Epicurean theory for he writes “But there is no known Epicurean theory of life which does not assign to the pleasures of the intellect, of the feelings and imagination, and of the moral sentiments, a much higher value as pleasures than to those of mere sensation.”

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Table 5.2. Objection: Utilitarianism and the Past

slightly increase the overall happiness of the world if you did not show up. Utilitarianism says that this very slight increase in happiness allows you to break the solemn oath you made.

**Objection 4.** Utilitarianism is too demanding. Given the current state of the world and the impoverished state so many people live in, treating everyone’s happiness equally would currently demand that we give away nearly all of our money and do everything we can to help others (of course, we should not give away so much that we decrease happiness). On the basis of this, people reject utilitarianism because (i) they think that this asks too much of us and it (ii) confuses acts that are supererogatory (one’s that go above and beyond our moral requirements) rather than obligatory.

**Objection 5.** Utilitarianism commands individuals to increase the overall amount of happiness in the world. In other words, it says good action corresponds to those actions that lead to an increase in the net amount of happiness. This is problematic as it does not account for the distribution of happiness.

**Objection 6.** Utilitarianism asks us to increase the total amount of happiness independent of how that happiness is distributed. This is compatible with two counterintuitive results. First, it is compatible with increasing the total amount of happiness by increasing the total number of people yet decreasing how happy each individual is. Second, it is compatible with a society where some individuals are insanely happy but others are living in misery.

**Objection 7.** Utilitarianism does not consider the intentions of the actor. Consider three individuals: Liz, Jon, and Vic. Suppose that Jon is attempting to hurt Vic while Liz is attempting to make him happy. However, in their respective efforts, Jon ends up improving Vic’s life (making him happy) while Liz ends up ruining his life (making his life worse). According to the utilitarian theory, it is Jon, not Liz, who has done something good.

**Objection 8.** Utilitarianism Relies on the Happiness Principle and the Happiness Principle implies Hedonism and Hedonism is False.4

As an illustration of this objection, consider the following example:5

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4Consider the following quotation from John Stuart Mill’s *Mill (1867) Utilitarianism*: “The creed which accepts as the foundation of morals. Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure, and the absence of pain; by unhappiness, pain, and the privation of pleasure.”

preprogramming your life’s experiences? If you are worried about missing out on desirable experiences, we can suppose that business enterprises have researched thoroughly the lives of many others. You can pick and choose from their large library or smorgasbord of such experiences, selecting your life’s experiences for, say, the next two years. After two years have passed, you will have ten minutes or ten hours out of the tank, to select the experiences of your next two years. Of course, while in the tank you won’t know that you’re there; you’ll think its all actually happening. Others can also plug in to have the experiences that they want, so there’s no need to stay unplugged to serve them. (Ignore problems such as who will service the machines if everybody plugs in.) Would you plug in? What else can matter to us, other than how our lives feel from the inside? Nor should you refrain because of the few moments of distress between the moment you’ve decided and the moment you’re plugged. What’s a few moments of distress compared to a lifetime of bliss (if that’s what you choose), and why feel any distress at all if your decision is the best one?

Objection 9. Utilitarianism relies on the principle of equality and this principle is false as it undermines true friendships.

P1: The equality principle of utilitarianism does not allow us to be preferential toward family members, loved ones, or friends.
P2: No one could ever consistently adopt a non-preferential attitude.
P3: Any acceptable moral solution implies that it is possible to follow.
C: Therefore, utilitarianism is not true.

Table 5.3. Objection: Utilitarianism and Friendship

5.2.3 Defending Utilitarianism

Given the objections above, utilitarianism might seem as though it does not offer us a guide for picking out the ideal course of action, but let’s consider a defense of this theory.

Defense 1, Consider All of the Consequences (Selective Attention).
The arguments against utilitarianism focus on the negative consequences of utilitarianism, but a different picture emerges if we think about all of the consequences of being a utilitarian.

Case 1: Wrongfully convicting someone makes the person who was convicted unhappy, but what about all of the good that came of this, e.g. makes the family of an unknown killer happy, eases hysteria, etc.
Case 2: Breaking a promise or lying to a friend might make your friend unhappy, but what about all of the happiness it brings into the world? Lying to your friend might make them feel better about themselves (just don’t get caught).

The point is that even though utilitarianism does not square with our intuitions about what is right and wrong, it may be that we are selectively focusing only on the negative consequences and not paying enough attention to the positive consequences.

Defense 2: A Modification to Utilitarianism: Act vs. Rule The version of utilitarianism we have been considering is act utilitarianism. This species of utilitarianism says that particular acts are morally good or bad according to whether that act increases or decreases happiness. One problem with the act utilitarian approach is that it seems to allow for some exceptionally bad actions in certain situations, e.g. murdering someone and selling their organs. This kind of outcome is horrifying even if we focus on ALL of the positive consequences.
Question: Come up with your own example of a case where an isolated act might be morally good (according to the act utilitarian) but morally bad (according to the rule utilitarian).

Question: Can you think of other environmental problems caused by individuals putting their own happiness over the happiness of others?

One way to potentially fix this problem is not to consider the positive/negative consequences of individual acts but the positive/negative consequences of rules of action. Rule utilitarianism says that a particular act is good or bad provided it is done according to certain rules that generally maximize happiness. In other words, rule utilitarianism says an action is morally good if it is done in accordance with a rule that yields (overall) happy consequences and morally wrong if it is done in accordance with a rule that does not yield a favorably happy outcome. Whereas act utilitarianism might allow for an occasional act where an individual is killed and their organs are harvested for certain individuals that may produce great happiness in the world, the rule utilitarian would say that a governmental policy that rounds up “undesirables” and harvests their organs for the “desirables” would be morally wrong as it would produce an extreme amount of unhappiness in the world (rampant fear, outrage, etc.).

Defense 3, Utilitarianism and Common Sense: One objection to utilitarianism is that it is goes against common sense by being too demanding.

Biting the Common Sense Bullet: Another response for the utilitarian is to bite the bullet. Yes, utilitarianism goes against our intuitions about justice and rights, but this is because our intuitions are wrong. Yes, utilitarianism is demanding in terms of what it asks us to do, but this is because some of our moral beliefs are wrong and we should change them to fit the utilitarian theory. Remember that intuitions about what is right and wrong have been wrong in the past (e.g. slavery) and there are probably other beliefs we have that are also wrong.

In addition, the fact that utilitarianism is an extreme position does not make it false.

5.2.4 Utilitarianism and Environmental Problems

In contrast to the voting solution (but similar to the market solution), consequentialism can attend to the degree to which individuals care about a given issue. If you care deeply about a forest, someone’s clearing it will be morally prohibited on the assumption that the deforestation will produce more unhappiness than happiness.

In contrast to the market solution, consequentialism considers the degree to which we care about a given issue but does not disregard that concern if we cannot back it with cash. Again, if you care deeply about a forest, your claim that the forest ought not to be cleared is not contingent upon how much money you are willing to put up to protect it.

Benefit 1: The first benefit of the utilitarian theory stems from its commitment to the equality (impartiality) principle (no one person’s happiness is more important than any other, what matters is the total increase of happiness). A host of environmental problems are caused by individuals privileging their own happiness over that of others (e.g. polluting water with waste from a factory, littering, ). The utilitarian theory contends that we ought to disallow such practices as it is immoral. So, insofar as some environmental problems are the result of individuals pursuing their own happiness at the expense of the environment, the utilitarian theory might be helpful in shaping how people should consider voting and enacting laws for stopping such practices.

Benefit 2: Belshaw argues that a more profitable way of understanding the utilitarian is not with a commitment to pleasure (i.e., with the gratification of
5.2 A Consequentialist-Based Solution

our personal wants) but with a commitment to increasing well-being (i.e., with the attainment of certain objective goods for human beings).

Belshaw (Belshaw, 2001, p.75) then proceeds to explain that living well is not possible without concern for our surroundings. The point then is that our own happiness is tied to preserving or conserving the environment.

I think Belshaw's argument can be made without appealing to the notion of “well-being”. That is, we can stick with the so-called “crude” version of the utilitarian view and argue that since interacting with the environment is highly pleasurable, when we go to do our utilitarian calculation, we ought to be concerned with diminishing pollution and preservation. First, I think intuitively many of us would prefer clean drinking water, air, and natural landscapes even if we have to sacrifice certain luxuries (but these are just my intuitions). Second, insofar as our happiness depends upon our health and our health depends upon the environment, I think there is good reason to think that the utilitarian would say we ought to both minimize pollution and conserve natural resources. Third, psychologically there is evidence to suggest that nature makes us feel happier and gives us more energy than a cup of coffee. A series of studies performed indicate that being outside in nature makes people feel invigorated, feel as though they have more energy.  

Further Thoughts

“Preservation is desired for things that should be saved, not for later use, but just because it is good that they continue to exist, either for essentially aesthetic reasons, or in relation to their scientific interest, or... simply for their own sakes.” (Belshaw, 2001, p.17). Belshaw makes the distinction between preservation and conservation in that conservation efforts are made to benefit human beings; whereas, preservationists believe the environment to be intrinsically valuable or the environment is valuable in its own right, for its own sake, or its value does not depend upon it being used for something else. In the example of the Bellefonte Central Rail Trail (see Figure 5.2), funding is provided by various organizations to conserve this trail for human transportation purposes. People use this trail to walk, run, bike, and generally travel on, making the maintenance of the trail an effort of conservation. Although, people may place intrinsic value on the trail because they believe the trail and surrounding environment is valuable in its own right, independent of people utilizing it for transportation. This would suggest that those individuals potentially maintain the trail for the purpose of preservation. Regardless of the reason for the maintenance of the Bellefonte Central Rail Trail, conservation and preservation efforts seek and elicit similar results (Belshaw, 2001, p.17).

The utilitarianism theory states an action is morally good if and only if it maximizes the overall amount of happiness in the world. In the case that an individual were to litter on the Bellefonte Central Rail Trail, based on people’s conservation and potential preservation efforts of the trail and surrounding environment, it can be inferred that littering on the trail would generally make the overall amount of happiness of people in the world decrease and make only one individual more happy (that person who is littering). Littering would make the overall amount of happiness decrease because it is a form of pollution or “disruption to some part of the environment due to the excess of some material”, which may cause harm to some being, thus decreasing happiness (see subsection 2.3.1). From this example, one would argue then that the conservation and preservation of the Bellefonte Central Rail Trail and surrounding environment can depend on utilitarianism. The environmentally friendly decision to not litter on the trail maximized the overall amount of happiness in the world, proving the utilitarian theory to be an effect model for decision-making with regard to the environment.  

-Alanna Rudolph

Question: How specifically do you think that adopting a utilitarian mindset might help the environment? Give an example to illustrate your answer. Where are its shortcomings?

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6See June 2010 Journal of Environmental Psychology
5.3 A Rights-Based Solution

5.3.1 What is a Rights-Based Ethics?

One of the most damaging objections to utilitarianism is that it requires individuals to do acts that we intuitively regard as heinous in order to maximize the total amount of happiness in the world. In short, in making the happiness the ultimate good to be attained, the utilitarian allows for individuals to be treated as a means to this “greater” end. While the utilitarian end may be something admirable (happiness for the greatest numbers), the fact that it commands us to do whatever is necessary to get there goes against two intuitions:

1. there are somethings you just shouldn’t do to people, i.e., some acts are categorically wrong and cannot be justified no matter how good their effects are
2. certain beings (e.g. human beings) shouldn’t be used as a means to an end.

Thus, in contrast to the utilitarian theory, a rights theorist contends that (i) some actions are categorically wrong/right independent of the effects they produce, (ii) as these actions are categorically wrong/right, we have a moral duty to not (or to) perform these actions, and (iii) these duties generate corresponding rights in certain beings and such rights prevent other individuals from treating certain beings as a means to an end.

**Moral Right:** the fixed and given set of entitlements that permit one to perform (or not perform) some action or that permit one to be (or not be) in some state.

For example, killing someone to get a job promotion is categorically wrong; we thus have a moral duty not to do it; thus, certain beings have a right to life. In addition, we might contend that the prevention of the free expression of ideas is categorically wrong (given some conditions); we thus contend that we have a moral duty not to prevent someone from expressing themselves (even when what they express is unpleasant to us); we thus think that individuals have a right to free speech.

In contrast to the utilitarian theory which contends that we ought to increase of overall amount of happiness by any means, the duties and rights of the rights theorist place limitations on how individuals can go about increasing happiness. We might be able to increase the total amount of happiness in the world by killing someone and harvesting the organs, but this act would be prohibited as it would violate some individual’s right to life. The world might be a happier place if we censored individuals from expressing highly controversial political opinions, but if we have a right to free speech, censoring would be morally wrong. In short, while the rights theorist encourages an increase in the overall amount of happiness, the pursuit of happiness is moderated by individual rights.\(^7\)

5.3.2 Who Has Rights?

An important question for the rights theorist to answer is who (what types of entities) have rights? On one approach, the individuals who have rights are those that are autonomous, i.e., individuals who are capable of rationally making

\(^7\)In asserting, however, that individuals have rights, the issue here at least is not whether individuals have legal rights (as these vary from State to State). Rather, the issue is whether individuals what might be called “moral rights”, “rights” that we would have independently of the country or time period we currently occupy.

**Question:** One of the claims here is that we think human beings shouldn’t be used merely as a means to some end. Instead, they are deserving of respect. Consider a situation where someone has “used you” or “used” someone you know. If this is uncomfortable, you can make up a hypothetical scenario. Explain the situation and explain how the situation made you feel and whether or not you think it was wrong for someone to use you for their own purposes (independently of your consent). Do you think what that individual did was morally right, wrong, permissible, etc.?

**Question:** What rights do you think people have? Do we have a Right to Life? Property Rights? Right to Privacy? Right to Fair Trial? Right to Party? Right to Be Happy? Right to be rich?
their own decisions. These are beings who have the capacity to determine their own ends (goals) and shape their behavior in accordance with these ends (they don’t have to be a slave to their desires).

On a second approach, any individual that can have interests has rights. On this account, it is not necessary that those interests be set through the free use of reason; instead, what is necessary is that the being is capable of desiring or can legitimately said to have some stake in the matter. For example, a child has an interest in being fed, in being warm, and in being loved, but it is likely unable to rationally determine its own goals.

### 5.3.3 Objections to Rights-Based Ethics

There are a number of objections to rights-based ethics.

**Objection 1.** There are no such thing as rights.

**Objection 2.** Rights conflict. One problem for the rights theorists is that rights seem to conflict in so many different ways. The fetus’s right to life conflicts with the mother’s right to do with her body what she wants. A person’s freedom of speech can conflict with another’s right not to be physically harmed (e.g., consider the old example of yelling “fire” in a movie theatre).

The rights theorist might respond to this objection in at least two different ways. First, the rights theorist might argue that such conflicts are illusory by denying that we have one of the rights that creates the conflict. For example, the rights theorist might argue that the fetus does not have a right to life or that our right to free speech is not so unrestricted that it would allow us to harm others. Secondly, the rights theorist might respond by saying that there is a hierarchy of rights such that in cases where rights seem to conflict, the lesser rights must give way to the greater ones. For example, a pro-choice individual might argue that even if we assume that the fetus has a right to life, this right doesn’t trump the woman’s right to do with her body what she pleases. While we might have a right to free speech, it does not trump an individual’s right to be free from unnecessary harm.

**Objection 3.** Rights cannot be absolute. One of the major attractions of the rights theory is that it places limitations on the utilitarian’s goal of increasing happiness by any means. This is done by saying that individuals have rights that cannot be violated for any reason or under any condition (their rights are absolute). One objection then is that rights cannot be absolute as we can imagine scenarios where we would violate an individual’s right for the greater good. For example, if it was necessary to kill an individual in order to save an entire country or the entire world, intuitively we might say that in such dire circumstances it is acceptable to violate that person’s rights. But in violating an individual’s rights it seems that our moral decision-making is being guided by the idea that what’s important is the happiness of the greatest number rather than respecting the rights of single individuals.

### 5.3.4 Rights and Environmental Issues

Even if a rights-based approach faces problems, what benefits might there be to adopting that sort of mindset to environmental problems? That is, might more serious attention and protection of certain human rights lead to a decrease in the numbers or severity of environmental problems?
Let's consider two different ways that adopting a rights-based perspective might encourage a resolution to environmental problems.

**Radical Approach:** If we contend that any being with an interest is deserving of rights, then a case can be made that animals have rights. Insofar as we think that they have a right to life, we have a duty not to hunt animals to extinction (or at all) or to upset their habitats in a way that would lead to their death, e.g. clearing a forest or transportation oil tankers that could potentially spill. (We will discuss the rights of animals more in chapter 6, ??, and chapter 7).

**Moderate Approach:** If we have rights to certain public goods, then we ought to act against efforts to pollute or exhaust these goods. For example, if we have a right to clean air, clean water, safe food, or access to natural locations free from disruption, then it is both our duty to protect these goods and it is morally wrong for individuals to damage them without some overriding reason. On this account, greater protection of our human rights might lead to a decrease in the kinds of pollution that negatively impact human beings.

On both the radical and moderate approach to rights, a case can thus be made that adopting a rights-based perspective, i.e., by focusing more intently on protecting and preserving certain rights, will lead to the resolution of environmental problems. However, we might also argue that rights-based solutions might, by contrast, make environmental problems worse. For example, many individuals think that it is categorically wrong for a government or any group to limit the number of children you can have. Thus, many individuals insist that we have a right to reproduce. But at least in the United States, not having a child is more environmentally friendly than nearly any other behavior, e.g. driving less, recycling, etc. And perhaps one of the most straightforward solutions to issues like conservation is simply to limit the number of people who need (or desire) natural resources.

**Further Thoughts**

Environmental issues are popular topics to talk about today’s social and political scenes. We often like to discuss looming topics such as climate change and global warming and explain different policies that we think should be in place to stop these environmental changes.

One topic that is not addressed by individuals living in the many eastern locations in the United States is water conservation. In many places on the east coast, there is ample rain each year and thus drought is very infrequent. However, in many places in the western and southwestern part of the United States, there is drought every year. Currently, Californians are suffering severe drought, and this is causing people to be more wary of how they use their water (see Figure 5.3). They are now implementing water usage restrictions throughout certain areas in California, saying that they cannot water their lawns or wash their cars, and if they do they can be fined up to five hundred dollars. They are also now discussing if they should put water restrictions on each house saying that you can only use this many gallons of water a day.

Many people believe that fines and restricted usage policies are the best course of action to take to relieve the stress of drought and to conserve the water that they still have. However, this is also controversial because there are also many people who believe that they have an unlimited right to water. My argument is that yes, everyone has the moral right to water, but this right comes with the moral responsibility (or duty) to not inhibit anyone from that right to water. Fresh water is a finite resource, which means that this resource can be depleted at any point in time. Fresh water is also necessary for life, so if we believe that everyone has the right to life, that implies that everyone also has the right to fresh water. However, this does not mean that we can just waste fresh water because we have the right to it. The fact that it is a finite resource brings into the light the responsibility that we have to not waste this resource because if we do then we could potentially be inhibiting others from accessing their

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**Figure 5.3. Water Waste by Mary Lemmon.**
Letting a faucet run is a simple and very effective way of wasting water.
right to fresh water. - Mary Lemmon


5.4 A Virtue-Based Solutions

5.4.1 What are Virtue Ethics?

The consequentialist and rights-based solutions focused primarily on offering models of good and bad action. One of the major strengths of these approaches is that they appear at least in outline to provide answers to any given question we might have about the moral worth of some act. Should I flick this cigarette in the street or dispose of it in a bin? The utilitarian will ask us to calculate which act will produce the most amount of happiness and deliver an answer about which of the two options is preferable. Should I slaughter this hog and have a feast? The rights-based theory will ask whether the hog has a right to life (or we have a duty not to harm animals) and provide an answer on the basis of this analysis. In short, the utilitarian and rights-based theories offer universal moral rules that can be applied in any scenario.

A virtue theory of ethics, by contrast, places less emphasis on deciding which acts are morally good or bad and more emphasis on what habits, character traits, or settled dispositions found in good (virtuous) people. That is, in contrast to rights-based theories that emphasize doing one’s duty and consequentialist-based theories that emphasize maximizing happiness, virtue-based theories emphasize developing certain “ideal” character traits.

Virtue Ethics: term for various theories that emphasize the role that excellent (virtuous) habits play in moral theory.

Virtues themselves are “excellent” character traits. They are the product of certain natural tendencies but take shape as the result of nurturing. Virtues are relatively stable behaviors. A brave person is not someone who performs a once-in-a-lifetime heroic act but spends the majority of their life avoiding difficult situations at all costs. The act itself may be heroic but such one-off heroism does not imply the virtue of bravery.

Virtue theory can be understood in a weak or strict way. On the strict approach, you ought to seek to develop virtuous behavior whenever possible and you ought to ward off acquiring certain vicious behaviour (vice) whenever possible. The more virtuous you are as a person, the better person you are. The more vices you acquire, the worse off you are morally. However, this might strike many as being too demanding. It is certainly good to be virtuous but it is questionable whether we have a moral obligation to be virtuous. A weaker version of theory contends that we ought to avoid vice and aspire to be virtuous.

5.4.2 Virtues: Some Examples

Where do virtues come from?

Different versions of virtue-theory offer different accounts of what virtues are important and how we can identify any given behavior as virtuous. “Eudaimonism” contends that human beings have a specific function and the virtues are those

Question: Think of a right and then consider whether a greater protection of that right would benefit the environment in some way.

Figure 5.4. “Aristotle Altemps Inv8575” by Copy of Lysippus - Jastrow (2006). Licensed under Public domain. Aristotle (384–322 BC). Greek polymath; student of Plato and teacher of Alexander the Great. Aristotle is considered the founder of virtue ethics.
character traits that enable humans to perform their distinctive function well. A “care-based approach” places particular emphasis on the virtues related to caring and nurturing.

For our purposes, we will focus what is called an “agent-based theory of virtues”. This theory contends that we can simply rely upon our common-sense intuitions about what is and is not virtuous. There are people we admire and this admiration is built on that person having some particular stable characteristic that we lack and that we intuitively regard as excellent.

<table>
<thead>
<tr>
<th>Virtue</th>
<th>Vice</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chastity</td>
<td>Lust</td>
<td>Abstaining from sexual activity relative to one’s position in life</td>
</tr>
<tr>
<td>Temperance</td>
<td>Gluttony</td>
<td>The ability to control one’s self relative to one’s desires; moderation of one’s appetites</td>
</tr>
<tr>
<td>Charity</td>
<td>Greed</td>
<td>Not simply monetary giving, but self-sacrifice and kindness to all others.</td>
</tr>
<tr>
<td>Diligence</td>
<td>Sloth</td>
<td>Persistence, the ability to follow through with one’s commitments, to be careful in one’s work</td>
</tr>
<tr>
<td>Patience</td>
<td>Wrath</td>
<td>The ability to withstand or endure hardship; avoiding the immediate turn to violence when resolving conflicts</td>
</tr>
<tr>
<td>Kindness</td>
<td>Envy</td>
<td>Compassion and concern for others without looking for anything in return (does not necessarily require self-sacrifice)</td>
</tr>
<tr>
<td>Humility</td>
<td>Pride</td>
<td>Modest behavior, thinking of yourself less and being able to identify the positive qualities of others</td>
</tr>
</tbody>
</table>

Table 5.4. The Seven Heavenly Virtues & their Corresponding Vices (Sins)

5.4.3 Virtue Ethics and Environmental Problems

Adopting a virtue-based approach to environmental problems might do the environment some good. One way we might approach the connection between virtues and the environment is to consider a specific virtue and then consider how a society with individuals acting with that virtue in mind might behave with respect to certain practices that are environmentally dangerous. The proponent of an environmental virtue ethics will argue that virtuous behavior will lead to certain environmental benefits. In contrast, a critic of the virtue theory might contend that certain virtues might have little overall effect on environmental problems or actually make things worse.

Temperance: Attempts to conserve natural resources like water and fossil fuels is exacerbated not only by the number of people using these items but also how individuals use them. In some cases, individuals might be characterized as engaging in over-consumption and such over-consumption is associated with the vice known as “gluttony”. While individuals can be gluttons for food, we might also say that many of us are environmental gluttons. As a society, we overeat animals, we overfish streams, we overheat our homes in the winter, and overcool it in the summer. We buy a new cell phone when the new model is available. We purchase a second vehicle when the first works perfectly fine. We take vacations to foreign countries rather than limit our travel to nearby attractions. In short, we are gluttons for new things and new experience. The

Question: Develop a list of virtues by thinking of character traits that you admire in other people? If you are having trouble, try considering people you admire and think of what behaviors they have that you’d like to adopt.
environment thus might benefit from exercising more temperance about our use of resources.

**Honesty & Bravery**: New chemicals are being developed all of the time and we are constantly finding new information about how some of these chemicals negatively impacts our health, the health of other species, and the health of plant life. A chemical once thought to be safe may later be discovered to be harmful. How respond to this new information is important for how we address environmental problems. If a company’s research team discovers that a chemical is deadly, they can choose to ignore it to avoid the financial costs, or they can acknowledge its harmful effects and openly work toward developing safer alternatives. But this seems to require companies and the individuals working within the company to be honest about the results of their studies and willing to potentially incur serious financial loss. In addition, it may require individual bravery on the part of individual scientists or corporate employees to blow the whistle when information is covered up or ignored.

### 5.4.4 Objections to Virtue Ethics

**Objection 1.** Virtues depend upon nurturing. Nurturing depends upon things like education, parenting, good friends, potentially economic factors. Many of these factors are out of an individual’s initial control. Therefore, this makes an individual’s acting morally depend upon factors outside of their control (i.e. luck).

**Objection 2.** Virtuous people are not gods. One problem with using the behavior of virtuous people as a guide for what we should do in any given case is that virtuous people don’t behave virtuously all of the time. For example, a man may love his dog. The dog is his fateful companion for which he would do nearly anything. But when the dog is sick, the man becomes depressed. He decides to put the dog down to minimize the dog’s suffering. We might characterize the man’s decision to euthanize his dog as both courageous and compassionate. But, if we knew that the dog would have lived if simply allowed to rest a few more days (and a veterinarian would have recognized this), we might be more reluctant to label the man as courageous and instead label him as reckless.

**Objection 3.** Virtuous people disagree or can be unsure about what to do. Consider the simple scenario where a friend asks you if an ugly-looking shirt looks good on him/her. A kind person might suggest that one should lie or slyly suggest that another shirt might look better. An honest person might suggest that one should simply tell the friend that the shirt looks bad.

Consider conservation in Las Vegas. The people of Las Vegas rely on much of their water from Lake Mead. Unfortunately, water consumption in Las Vegas has occurred at such a high rate that water levels have become dangerous low. For this reason, the Southern Nevada Water Authority proposed the building a 15 billion dollar pipeline that would effectively siphon groundwater from across Nevada. This pipeline is thought to put a number of endangered fish and wildlife at risk as well as impact local groups who rely on springs that the pipeline would siphon from.

Virtue theory does not give any clear direction about what to do. The two million people of Las Vegas need water and so building a pipeline might be seen as an act of compassion. Yet, the pipeline appears to threaten the lives
of various species and negatively impact those who rely on local springs or groundwater for farming.

5.5 Summary

In this chapter, several different ethical theories to environmental problems were proposed. These theories aim to provide a model of ethical conduct and answer questions about how we ought to (should) behave in general. In answering how we should act (or be), these theories also provide a general outline for how we should behave toward the environment as well. While different theories may coincide about certain environmental solutions (e.g. both the rights-based theory and the utilitarian might contend we ought to respect animals), the rationale for why we ought to behave in one way differed significantly. The consequentialist (utilitarian) emphasized that we ought to behave in an environmentally friendly way when it increases happiness; the rights-theory when some natural thing has rights that engenders duties in us toward it; the virtue-based theory emphasized good character and pointed toward how certain virtues lead to beneficial environmental effects.

Question: Having considered several different moral solutions to environmental problems, consider an individual who cares very little for how their actions might impact (either positively or negatively) the environment. Pick an environmental issue you are concerned about and consider how you might go about trying to persuade this person to care about how their actions impact the environment? In crafting your argument (or your persuasive speech), which of the three moral theories do you think is most useful?

![Figure 5.5. Place of Ethical Theory in Environmental Decision-Making](image-url)
Chapter 6

Animals, I: Introduction

6.1 Introduction

In the next few chapters, we turn to a discussion of what, if any, responsibilities we have to animals.

6.2 Human Exceptionalism: What Makes Humans Special?

One theory contends that we have no ethical responsibilities to non-human animals. Human beings are a distinct kind of thing and what distinguishes human beings from other organisms makes human beings superior.

**Definition – Human Exceptionalism**

The theory that contends (1) that human beings are different in kind from other animals as human beings have a property \( x \) that other animals lack and (2) that any creature that has \( x \) is superior to any creature lacking \( x \).

The order in which we will analyze human exceptionalism is as follows. First, we will investigate (1), namely what, if anything, distinguishes human beings from animals. Next, we turn to the question of whether the \( x \) that distinguishes human beings from other animals is a property that can be said to make human beings *superior*.

The first claim of human exceptionalism is that there is a *difference in kind* between human beings and other beings. To say that humans are different in kind from other beings is to say that they have some quality or property that other beings lack altogether. In other words, human exceptionalism rejects that human beings are only different in degree from other non-human beings.

**Definition – Difference in Kind**

Kind \( B \) is *different in kind* from kind \( C \) if and only if all of the things belonging to kind \( B \) share a non-trivial property \( x \) that \( C \) wholly lacks.
Definition – Difference in Degree

Kind $B$ is different in degree from kind $C$ provided $B$ and $C$ share a non-trivial property but $B$ has it to a greater or lesser extent.

No doubt, someone committed to human exceptionalism is likely to acknowledge a lot of similarities between humans and various animals. Human beings and some animals share similar anatomical structures and capacities, e.g. to run, climb, mate, or live harmoniously in groups. In pointing to these features, we might say that some beings have some of these qualities or behaviors to a greater or lesser extent. For example, hawks, humans, and butterflies both have visual acuity but hawks have it to a greater degree than humans, and humans to a greater degree than butterflies. All of the creatures share the same quality but some have it to a greater extent. In contrast, if we were to say that only human beings have a soul (an immaterial substance given to us by some divine entity), this would be a difference in kind rather than degree. It isn’t that animals have souls to a lesser degree, they simply lack it altogether!

Stating whether something is a difference of degree or a difference in kind is often difficult. For example, consider color vision. Human beings and many animals and insects have color vision. And, at least at first glance, it appears that the difference is one of degree. For example, consider that dogs have two color-receptive cones (yellow and blue) and so cannot see red or green (Figure 6.1).

![Figure 6.1. Visible Colors for a Dog](image)

Human beings have three color-receptive cones (red, green, blue) and so they are capable of seeing a wider range of colors (Figure 6.2).

![Figure 6.2. Visible Colors for a Human Being](image)

Other creatures can see a different or even wider range of colors, e.g. some butterflies are colorblind to red while others have five color-receptive cones, including one that allows them to see ultraviolet light (Figure 6.3).

We might say then there is a difference in degree with respect to the amount of color that each being can see. Dogs have color vision to a lesser degree, human beings have it to a greater degree, and butterflies and various insects have it to an even greater degree. But this difference of degree can also be characterized
as a difference in kind in that butterflies have a capacity that we altogether lack, namely the capacity to see ultraviolet.

A proponent of human exceptionalism is committed to the claim that there is a difference in kind between human beings and non-humans and this difference makes human beings superior. When considering what quality or capacity might not only distinguish humans in kind from all other creatures but might establish them as superior, it is somewhat natural to look for certain cognitive abilities that might belong exclusively to human beings.

### 6.2.1 Tool Use

One misconception about technology and tools is that the use or creation of technologies is a distinctly human activity. Some have taken tool use or the creation of technologies to separate human beings from animals.

The argument goes something like this:

| P1  | Humans use technologies. |
| P2  | Animals do not, and perhaps cannot, use technologies. |
|     | Human beings are the only creatures who use technologies, create technologies, reuse technologies, and refine materials for the purpose of making technologies. |
| C   | Therefore, tool-usage, the use of technologies is one thing that separates humans from animals. |

**Argument 6.1. HUMANS AS THE ONLY TOOL-USER ARGUMENTS**

Notice that the use of “technology” in the above argument is ambiguous. On the one hand, let’s suppose that what is meant by “use technologies” in P1 is to use any object as a tool, i.e. to use some object that is not one’s own body for some purpose.

**Objection 1.** P2 is false because animals use tools. For example, orangutans use leaves as gloves to gather spiny food, bonobos use tool for personal hygiene, gorillas use branches as walking sticks and to test water depth, capuchin monkeys crack nuts with stones, mandrills use tools to clean their ears, macaques tools to pry open oysters, elephants use branches to swat flies, bears use rocks to exfoliate their skin, etc.

**Objection 2.** P2 is also false for it is not the case that only human beings create technologies. For example, a variety of creatures build structures either for shelter (habitats), to catch prey, or to communicate. For example, beavers
build dams, bees make hives, termites make large cathedral-like mounds.

**Objection 3.** P2 is false because animals (e.g. crows) often reuse a single tool.

**Objection 4.** P2 is also false as animals also refine material in nature. Some structures are built with a variety of different materials while others make use of processed materials. For example, the Long-tailed Tit constructs its nest with over 6,000 pieces of lichen, feathers, spider egg cocoons and moss. In addition, paper wasps gather wood and mix it with their saliva to build hives with paper pulp.¹

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**Further Thoughts: Tool Use, A Difference in Degree or Kind**

Human exceptionalism brings forth a heated debated as to whether or not humans are the superior life form. Human exceptionalism is defined as some unique property that humans possess and animals lack, which places humans higher up on the chain than all other animals. Proponents of the theory suggest there exists a difference in kind, rather than degree, between humans and animals. These people claim that humans own specific cognitive abilities which animals altogether lack. The idea that only humans utilize and create tools drives a wedge between humans and all other animals. However, there are objections to this statement because animals do in fact use and make tools to assist in their daily lives. Also, animals reuse the same tools, and they refine material in nature.

Lori Gruen, the author of *Ethics and Animals*, cites numerous examples of tool use among animals. Every argument proponents of human exceptionalism concoct, she counters with specific instances of how animals utilize and create tools just like humans. One example which many people have observed (especially at Penn State) is when squirrels crack the nuts they gathered on rocks to obtain the food inside the shell. In this instance, squirrels recognized the need for something strong to open the hard outer layer of the nut, found a specific tool/device to smash the nut on, and actually used the rock as a tool to break the nut. Many animals require tools to perform actions necessary for life each day, similar to humans.

A possible criticism thrown at the idea of animals as tool users may be that animals solely utilize tools for basic needs, just to get by. Humans think about the future and how to improve their tool use. Humans continue to develop technology and devices to improve our quality of living rather than to simply “get by.” Tools can be items of luxury for humans rather than simply necessities of life.

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**6.2.2 Language**

It may be argued that what distinguishes human beings from non-humans is the capacity to use language.

**Objection 5.** Chimpanzees, gorillas, and apes can learn sign language and they can use this language to express new ideas (rather than merely parrot expressions). With this said, it must be conceded that animals appear to more advanced capacities involved in language use, e.g. constructing grammatical sentences (Gruen, 2011, p.12).

**Objection 6.** The claim is trivial. It seems to assert the trivial claim that only human beings can learn human language rather than only human beings can learn a language.

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6.2 Human Exceptionalism: What Makes Humans Special?

6.2.3 Having a Theory of Mind

One complex set of capacities claimed to belong exclusively to humans is having a “theory of mind”. Having a theory of mind involves being able to understand what others might think, feel, and perceive. Namely, it involves the capacity to acknowledge that others are capable of experiencing and processing the world in a way similar in kind to how we experience it. In short, it involves the ability to recognize others as thinkers, feelers, perceivers.\(^2\)

**Objection 7.** It appears that some animals (e.g. chimpanzees) do have a theory of mind as they are capable of understanding the effect of visual perception on knowledge. For example, one study showed that weaker chimps would try to acquire food not in view of more dominant chimps.\(^3\)

**Objection 8.** Some studies seem to suggest that chimps are capable of attributing wants, intentions, purposes, beliefs, and knowledge to other beings.

6.2.4 Ethical Capacity

It appears that human beings are distinct from animals in that only humans can behave ethically. That is, only human beings can give due consideration to ideal behavior, duties to other beings, or to what they *ought* or *should* do. The conduct of animals is, by contrast, directed by instincts or driven by necessity, i.e. they do what is required to survive (e.g. eating, reproducing, avoiding pain).

In order to get a clear sense of what it means to say that only humans act morally, it is necessary to distinguish between two different senses of “acting morally”

- **acting morally 1:** to formulate (linguistically) a principle of right action and then to act on that formulated principle of action in all cases. That is, to construct and follow moral laws.
- **acting morally 2:** to behave in a way that reflects concern for beings other than one’s self in a way that is not reducible to acting for the purpose of promoting one’s narrow self interest.

**Objection 9.** If someone gives us a gift, many feel that we ought to reciprocate in some way. While it is not necessary to give them a gift in return, many would find it to be morally wrong to physically harm someone for giving us a gift and morally good to do something kind in return. Chimps and monkeys engage in food sharing with individuals who have previously groomed them.

**Objection 10.** Many human beings adopt children who lack parents. This action seems to reflect a concern for beings other than one’s self and it is not reducible to a desire to preserve one’s own genetic materials. Such behavior is found in chimpanzees who will adopt parentless chimps.

6.2.5 A Difference that Makes a Moral Difference

In section 6.2, the question of whether there is some property that distinguishes human beings in kind from non-human animals. Assuming there is a difference in kind, human exceptionalism contends that such a difference makes human

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\(^2\)See Woodruff (1978)

\(^3\)See Hare (2001)
beings superior to non-human animals. That is, it makes human beings better, more valuable, more worth of consideration than non-human beings.

Human exceptionalism is open to two possible kinds of criticism. First, as discussed in section 6.2, it is open to the criticism that there is no difference in kind between human beings and non-humans. Second, it might be argued that even if there is a difference in kind, such a difference might not be one that makes human beings superior to non-human beings.

We often point to various differences that make people better than other at certain things. For example, consider John and Liz. Liz is a music genius. She can sing, and play a number of instruments extremely well (guitar, piano, tambourine, etc.). John, on the other hand, lacks any real musical ability. He tries to play guitar but isn’t any good at it. He tries to sing, but children cry when he does. We can straightforwardly acknowledge that Liz is better at music than John. She is superior to him at all things music. In pointing to a difference that makes human beings superior to non-humans, the focus lies in a difference that makes it appropriate to treat one being with more consideration from a moral point of view. That is, a superior being is one which may have more rights, whose happiness is more important, or who we may have special duties toward. In the case of John and Liz, we intuitively don’t think that Liz should have more rights or is more deserving of happiness than John because she is better at music than John. In addition, we don’t think the butterfly is somehow morally superior to us simply because it is capable to see ultraviolet light and we cannot.

The question then is what sort of characteristic would warrant an individual being more deserving of moral consideration? Another way of asking this is as follows: what sorts of properties must one have to be worthy of any type of moral consideration and what property must one have in order to be worthy of more moral consideration than some other being?

**Objection 11.** Tool use, language use, having a theory of mind, or having the capacity to be ethical are all too exclusive criteria for determining the scope of beings that are morally considerable. They would exclude individuals with certain mental disabilities, individuals who may have been injured and lost the ability to use certain technologies, children and babies, and individuals in a comatose state or who are knocked unconscious.

In addition, when we think of an individual doing something good or evil to (or for) someone else, our intuitions about the moral worth of that action do not
shift were we to discover the being to which it was performed lacked language, the capacity to use tools, etc.

For example, suppose Jon gives Mary flowers. We might think this is a good action, but if we were to find out that Mary was unconscious we wouldn’t say that Jon’s gift-giving act is no longer a good act because Mary lacks a theory of mind or the capacity to do good.

6.3 Moral Consideration of Non-Humans: Scope and Extent

The claim that there is some definitive property belonging to all human beings that makes them morally superior to non-human beings is problematic (see section 6.2). Tentatively then, we might conclude that it is necessary to pay attention to how our actions influence non-human beings and give due consideration to how we ought to act in relation to them.

Figure 6.7 illustrates our conceptual situation at this point, namely that we have a vague idea that we have a responsibility to some non-human being.

However, there mere acknowledgement that non-human beings are owed some moral consideration is extremely vague for it is unclear (i) what non-human beings warrant our moral consideration (the scope of our moral consideration) and how exactly non-human beings ought to factor into our moral deliberation and behavior (how much and to what extent should non-humans matter). In short, if we have moral obligations to non-humans, we want to know what non-humans are deserving of our moral consideration and precisely how we ought to behave in relation to these beings (see Figure 6.8).

Question: Can you imagine a property that if human beings did have it, it would allow them to regard themselves as morally superior to non-humans?

Question: If human exceptionalism is false, this does not mean that human beings and non-human beings need to be treated as moral equals. But, what it does mean is that human beings lack a difference in kind that would allow them to regard themselves as morally superior to all other beings. As such, it may be the case that animals require moral consideration but to a lesser degree. How big of a difference in degree is there between human beings and animals?

Figure 6.7. What non-human beings should be included in the scope of our moral considerations?

Figure 6.8. Two Questions Concerning the Moral Consideration of Non-Human Beings

In trying to give a more precise account of the scope (which non-human beings matters), we might consider several different possible proposals that specify...
certain criteria that pick out both humans and non-humans. First, we might contend that all non-human beings are deserving of moral consideration (see Figure 6.9).

![Scope of Moral Consideration](image)

**Figure 6.9. All Non-Human Beings Are Morally Considerable**

**Objection 1.** The idea that we have an ethical obligation to all non-human beings is too inclusive. At least intuitive we do not have a moral obligation to inanimate objects, e.g. rocks, cell phones, dirt. These are not things that we can harm or diminish their well-being in any relevant way. We can violate their right to life by killing them as they are already dead, nor can we encumber their right to freely express themselves as they are not the types of things that can communicate.

### 6.3.1 Living Beings

Excluding inanimate or dead creatures from our moral consideration, an alternative proposal is to say that only **living beings** are morally considerable.

![Scope of Moral Consideration](image)

**Figure 6.10. All Living Beings Are Morally Considerable**

Regarding all living beings as worthy of moral consideration includes not only non-human animals, but also various other parts of nature, e.g. plants and various microorganisms (e.g. bacteria and fungi). It would exclude inanimate natural objects like rocks or dirt as well as lifelike things like viruses.

This being said, why is being alive important? That is, why is having the property of **being alive** sufficient to warrant our moral consideration?
One argument is that since all values depend upon being alive, we ought to respect any living being. The story goes something like this. There are some things that are good for a being and some things that are bad for a being. The good and bad are defined relative to what that thing values. If a thing values fresh water and we produce drought like conditions, this would be bad for that being. If the thing values friendship, and we were to foster conditions that allow for friendship, this would be good.

But since everything that the thing values depends upon its being alive (being alive is necessary for an entity to value anything), we ought to respect any entity that is alive. As humans, we cannot regard (experience) friendship or art or a good meal as having value if we are not alive. Likewise, if other living things are to regard certain things as valuable, they must be alive to have such views.

One implication of contending that all living beings are deserving of moral consideration is that we ought to avoid killing anything that is living except if it is absolutely necessary. Plants, trees, animals, microorganisms are all alive and it would be ethically wrong to kill any of these things unless there is a overriding reason, e.g. we need to kill a plant in order to avoid dying ourselves.

**Objection 2.** In order for something to regard something as valuable, it is necessary for something to be alive. But what makes killing something wrong is not that the taking away the condition necessary for something to have values but the taking away of the individual’s experience or pursuit of what they regard as valuable. If B is a being that is alive but regards nothing as valuable, then intuitively there is no way to harm B. And, if there is no way to harm B then it seems that we cannot do B any wrong or good. And, if there is no way to do B any wrong or good, then it should not play any wrong in our moral deliberation.

**Objection 3.** The theory is too inclusive as it seems to command us to radically change our behavior. Consider Liz who decides to go for a run. She runs along a cinder path and in the process crushes a number of tiny insects. Such running and killing is unnecessary for Liz to survive. Consider Jon who decides to clean his basement. In cleaning his basement he ends up killing a variety of bacteria and mold. Such cleaning and killing is unnecessary as he could simply not go into his basement (see Figure 6.11).

In short, while life is something important and something that should be taken into account when we act, being alive is not sufficient for something being
morally considerable. That is, while it might be morally wrong to take away the life of something that has values, the killing of that thing is only wrong insofar as it involves the interference with the values of that thing and not the taking of the life itself.

6.3.2 The Capacity to Have Interests

So, including all non-humans or all living non-humans into our moral deliberation is problematic as both options seem to admit too many things into such consideration and beings that might not care how we might treat them. It seems then we need a more restrictive set of conditions, ones that would narrow the entities that are not only alive but also would care about being treated one way or another. Perhaps, the entities that we should matter in our moral deliberation are those that are (i) alive and (ii) have interests, desires, wants, goals, aims, ends they wish to accomplish.

In saying that an entity that has interests is one that is morally considerable, it is necessary to distinguish between “being interested in something” and “something being in one’s interests.”

Consider a scenario where I wish to paint a picture. I desire to do this and in doing this, I don’t harm anyone in any serious way. In fact, when I finish the painting, I aim to give this painting to someone as a gift. I am interested in painting the picture and insofar as you interfere with this action (e.g. by killing me or locking me up or breaking my arms), you have done something wrong. In this situation, I consciously acknowledge that I desire to complete the painting, I am interested in doing so, but you have thwarted my desire.

Consider a different scenario. I am not terribly interested in painting (I don’t really desire to do it), but painting would be good for me. I am suffering from a tremendous amount of stress and taking time out of my day to paint a picture would be in my best interests. Your encouraging me to take a few hours to paint a picture would be something morally good (you are acting in my best interests) while your dissuading me from painting would be bad (you are keeping me from acting in my own best interests). In other words, while I don’t desire to paint the picture, it is surely in my best interests to do so.

Given the two scenarios above, consider the hypothesis that what makes something morally considerable is that thing having the capacity to have interests. The capacity to have “interests” can be understood in two distinct ways:

**being interested in:** B is interested in X if and only if B desires, wants, likes, or aims to do X. For example, B may be interested in skateboarding in that B desires to skateboard or aims to skateboard. Being interested in something implies a being with a psychology or mind, e.g. humans and animals.

**in one’s interests:** X is in B’s interests if and only if X would benefit B. For example, B wearing protective gear when skateboarding would be in B’s interests (even if B has no desire to wear the protective gear). Something being in one’s interests does not seem to require a being with a psychology, e.g. it is to the benefit of the tree if it is not chopped down or to the river if it is not polluted.

These two different senses of “interest” generate two different models of the scope of ethical considerability. First, if what makes something morally considerable is the capacity to be interested in something, then plants, microorganisms, and
non-living things are excluded while a good majority of animals are included (see Figure 6.12).

Figure 6.12. All Humans and Animals Are Morally Considerable as They Have Intentions

Second, if what makes something morally considerable is the capacity for something to have interests, then plants, microorganisms, and non-human animals are included while inanimate objects (as well as living things that cannot reasonably be benefited) are excluded (see Figure 6.13).

Figure 6.13. Things that Have Interests Are Morally Considerable

Even if we don’t have a decisive answer to the question of which beings should factor into our moral deliberation, it seems that what a being is interested in and what are in a being’s interests are relevant. That is, if what a being is interested in is morally relevant, and we think that a dog is interested in playing outside, such interests should play a role in our decisions about how to treat the dog. In addition, if it is in the dog’s best interests to play outside (even if the dog doesn’t seem particularly interested in it), and we think acting in a being’s best interests is important, then such interests should be considered when determining how to treat the dog.

Further Thoughts: The Scope of Moral Consideration

A number of answers have been given to the question “what sorts of beings (beyond human beings) should factor into our moral consideration? The problem with most theories is that wherever we draw the line, we can come up with an example as to how humans might treat a being claimed to be outside of the scope of moral consideration

Question: Should an object be deserving of moral consideration because it is “interested in” something or because it can be plausibly said to have “interests”?

Figure 6.14. A gorge near my house
unethically. That is, limiting the scope of moral consideration to such and such beings seems to imply that humans have free reign with respect to any being outside of the scope of moral consideration. For example, one of the most inclusive answers to the moral scope question is that all living things require moral consideration. This seems to imply that Pluto is outside the scope of moral consideration and so it would be morally permissible for you to destroy it (e.g. assuming that there is no life on Pluto).

Given that wherever a line is drawn, an example can be created to show how we might behave badly toward a being outside of the scope of moral consideration, I propose that rather than looking outside of ourselves to see what beings we should take into moral consideration, we should be looking inside ourselves. By “looking inside ourselves” what I mean is that we ought to include everything that you can meaningfully affect in some way (e.g. physically, psychologically) deserves moral consideration. The major problem with this theory is that it seems to be overwhelming and all encompassing. To say that everything deserves moral consideration is like saying that every star in the sky need a name, or every grain of sand needs to be counted. In response, it can be argued that while all things are deserving of moral consideration, they are not deserving of moral consideration to the same extent. Figure 6.14 blah blah blah – Christopher Evans

6.4 To What Extent Should Animals Factor into our Moral Thinking?

What sorts of interests can be plausibly attributed to non-human beings? An animal’s internal world may be quite a mystery to us. We might wonder whether a bat desires friends as it flies around using echolocation, we might wonder whether a pig longs for its dead mother, or whether deer hope for a picturesque sunset. All of these interests and desires may remain unknown to us. We may long for such things but whether other animals do is hard to tell. However, what can be plausibly attributed to pain-feeling animals wish to avoid pain. There are two reasons why the avoidance of pain can be designated as being in an animals interests. First, we can reason from the observable behavior of the animal itself. If I inflict serious pain on a dog, it behaves in ways similar to how a human being might behave, viz., a dog might howl in pain and cower the next time it sees me while a human being might cry out and avoid me altogether. Second, we can reason based on shared biological structures and their functions. What allows human beings to feel pain is the stimulation of nerves (nociceptors aka pain receptors), sent through the spinal column, to a part of the brain. Thus, insofar as non-human beings share the same biological components that allow us to feel pain, then it is reasonable to assume that animals feel pain as well.

Thus, we might limit the scope of our moral consideration to living beings, with interests, where one of those interests is the avoidance of extreme pain and the seeking out of pleasure (see Figure 6.15).

In addition to the claim that the scope of our moral consideration should be restricted to pain-feeling entities, we can also posit the fairly uncontroversial claim that (all other things being equal) a world with unnecessary pain is a bad thing and it is better to have a world where beings don’t feel unnecessary pain than one where beings do.4

With the scope of beings that we must consider temporarily settled, we might now consider the second key question in our discussion of our ethical obligations

4For information on whether fish feel pain, see J D Rose, R Arlinghaus, S J Cooke, B K Diggles, W Sawynok, E D Stevens, C D L Wynne. Can fish really feel pain? Fish and Fisheries, 2012
6.4 To What Extent Should Animals Factor into our Moral Thinking?

Figure 6.15. Scope of Moral Considerability for Pain Feelers

to non-human beings (see Figure 6.8): to what degree should non-human beings factor into our moral deliberation and thinking?

As a first step in this discussion, consider three different possible answers to this question:

Equality: We have an ethical obligation to avoid causing animals unnecessary pain unless justified. Animals should factor into our moral considerations and they should be given the same (equal) consideration as human beings.

Lesser Consideration: We have an ethical obligation to avoid causing animals unnecessary pain unless justified. Animals should factor into our moral considerations and they should be given the some (but not necessarily equal) consideration as human beings.

More Consideration: We have an ethical obligation to avoid causing animals unnecessary pain unless justified. Animals should factor into our moral considerations and they should be given the more consideration than human beings.

All three claims contend that we cannot treat pain-feeling animals in ways that would cause them pain without justification. Where they differ, however, is the extent to which the pain of animals ranks in comparison to the pain of human beings. The equality claim contends that the pain of animals and the pain of human beings are of equal consideration. Were we to try to alleviate the pain of a human being by harming an animal, the person who regards animals as having equal worth would say that we cannot regard the human being’s pain as more important than other pain-feeling beings.

In contrast, the lesser consideration claim makes the weaker assertion that animals should play a role in our theorizing in that hurting them for no reason would be morally wrong, but it leaves open the possibility that alleviating a human being’s pain by harming an animal might be morally acceptable (all things being equal).

Finally, the greater consideration claim makes the rather radical assertion that animals should not only play a role in our theorizing but animals rights and welfare matter more than the rights of human beings. Thus, given a scenario where one must choose between sparing a human being’s life and a horse’s life, the morally better option would be to spare the horse’s.

Question: Which claim concerning the extent to which animals matter strikes you as true? Explain why.

Figure 6.16. A Demonstration of Cannibalism (with a Halloween Prop), West Dining Commons Captured by Prudence Bateson, October 2014
Further Thoughts: Are animals our moral equals?

Are animals our moral equals? If they are, this would lead to animals being freed from captivity and no longer slaughtered for food. The claim that animals are of equal consideration is problematic considering that humans eat animals on daily basis, e.g., the average American family eats 70 chickens a year (Gruen, 2011, p.76) and it does not disgust us. In contrast, if a human were to eat human flesh (as in Figure 6.16) we would be repulsed. It is a disgusting act and would not be condoned except maybe in the most extreme circumstances, such as starvation. This would lead us to believe that there is something that makes humans morally superior after all but it cannot be clarified what this mysterious human factor is.

However, it could be said that what makes us react in horror is not that we are eating our moral equals, but cannibalism in general makes humans react with horror over the idea of eating another human. If a grizzly bear were to attack, kill and eat someone hiking in the woods it would be a tragedy but not a morally questionable and disgusting act. However, if the bear were to attack and kill one of her cubs and eat it, this makes us react with revulsion just as if a human had acted in such way. This suggests that cannibalism is always morally wrong, whatever the species, and thus there is no single defining factor that gives the human race a moral superiority and animals should be considered our moral equals. – Prudence Bateson

6.4.1 Utilitarianism: Justifying Pain

The classical utilitarian will contend that it is morally justified to cause an animal (or human) pain if doing so would lead to the increase of happiness (pleasure) in the world. Thus, our current practices toward pain-feeling beings is only justified given our infliction of pain upon such beings results in an increase in the overall amount of pleasure in the world. What does the utilitarian say about our current behavior toward animals? According to Peter Singer, our current behavior toward them is morally deplorable, unjustified on utilitarian grounds, and we have a moral obligation to cease such practices immediately.

P1 Animals can suffer.

P2 Pain-feeling beings have an interest in not suffering.

P3 Equal interests should be given equal moral consideration.

P4 Our current treatment of animals causes them to suffer.

C Our current treatment of animals is morally objectionable.

Argument 6.2. Singer’s Utilitarian Argument Against Animal Suffering

P1 in Argument 6.2 seems uncontroversial.

P2 asserts not that some pain-feeling beings consciously know they wish to avoid suffering but that it is in their best interest to avoid such suffering. The idea that it is not necessary to know that something is in your own best interest is straightforward. Consider John who is out at a bar. He has had too much to drink and desires to drive home. It would not, however, be in John’s interest to drive home as he will likely be arrested or, worse, kill someone or himself. Thus, it is in John’s best interests to get a cab rather than drive home, even if John desires to drive home. Analogously, we can say that it is in an animal’s best interests to avoid suffering even if it lacks the complex mental machinery to desire this.

With respect to P3 in Argument 6.2, it is necessary first to contrast classical utilitarianism with preference utilitarianism.
6.4 To What Extent Should Animals Factor into our Moral Thinking?

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**Definition – Preference Utilitarianism**

Preference utilitarianism is a type of consequentialism that contends that we ought to aim to maximize the interests of as many beings as possible and that equal interests should be given equal moral consideration.

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Since nearly any being that has interests and the capacity to feel pleasure or pain has an interest to not suffer, preference utilitarianism often produces the same result as classical utilitarianism insofar as both theories are considered with maximizing happiness and minimizing suffering. Where preference utilitarianism and preference utilitarianism diverge is with respect to whether the maximization of happiness and minimization of pain is the only thing that matters.

Consider Tek. Tek suffers from a rare disease that causes him a lot of suffering. Despite this suffering, Tek has hope. He thinks that a cure for his disease will be discovered and even if one isn’t, he vows not to do his best to fight the disease and to try to live as meaningful a life as possible. According to the classical utilitarian theory, it might be an act of mercy to kill Tek. We are well-acquainted with the research concerning Tek’s disease and we are confident that Tek’s condition won’t be cured for at least another 50 years. Our reasoning might proceed as follows: Tek’s life is one of suffering and we have an ethical obligation to minimize suffering and maximize pain. It might be better simply to kill Tek or keep him in a comatose state as, on the whole, his life is one where the pain outweighs the pleasure.

While Tek would surely prefer a world where he does not suffer, the preference utilitarian would object to killing Tek as maximizing pleasure and minimizing pain is only one of Tek’s preferences. Our ethical duty is, from the preference utilitarian point of view, to maximize the interests, desires, wants of all beings, and the avoiding of physical pleasure and pain are only one such interest, desire, or want. In short, pleasure and pain are not the only thing that matters from the preference utilitarian point of view.

Consider that in classical utilitarianism, no one individual’s happiness / pleasure was more important than any others. Similarly, P3 asserts (and preference utilitarianism contends) that equal interests should be given equal moral consideration. Thus, preference utilitarianism is committed to the claim that animals that can feel pain be given as much (equal) moral consideration as human beings.

How might P3 be supported? One way of supporting this claim is to charge its deniers with speciesism, the claim that unequal treatment of species is unjustified and akin to other forms of unequal treatment that we regard as morally wrong, e.g. sexism, racism.

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**Further Thoughts**

There are many arguments related to the acceptable treatment and moral consideration of animals. According to Argument 6.2, we have an ethical obligation to avoid causing animals pain unless justified. Since animals and humans have a similar wish to avoid suffering, and what makes something morally considerable is that it has interests that can be satisfied, the argument states that human and non-human interests should be given equal moral consideration. We cannot regard the human interest to avoid pain as more important than an animal’s interest to avoid pain.

According to the argument, we currently treat animals in a way causing them to suffer. We do not have an equal moral consideration for animals and often place our own interests over their desires. For example, the common practice of animal testing is immoral and cruel. According to the Animal Welfare Association, 19.5 million animals

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**Question:** Evaluate the following argument: Racism, sexism, and speciesism all share the same characteristic of elevating one group of individuals above another for some unjustifiable reason. Since we acknowledge that racism and sexism are wrong, it follows (analogously) that speciesism too is wrong.
are killed each year in research. Studies show that six percent of these tested animals experience pain. Under the Animal Welfare Act, any procedure can be performed on an animal if it is scientifically justified. Allowing these practices for the advancement of science clearly emphasizes the fact that animals are given less moral consideration than humans. By stopping practices such as animal experimentation, factory farming, and animal abuse, we can practice preference utilitarianism and give animals the same ethical consideration as humans.

For example, Figure 6.17 depicts a black rhino. This particular rhino is in captivity at the Pittsburgh Zoo. One could argue that its happiness is decreased at the expense of humans’ enjoyment. In the wild, black rhinos have been hunted for many centuries. Because their skin, flesh, and horns are very valuable, they are still being hunted in Africa today. The hunting of this rare species once again displays that humans lack an equal moral consideration for animals. Our interest in the animal’s hide and horn, as well as our desire for enjoyment and entertainment, overrides our interest in this rhino’s existence.

Although Argument 6.2 provides several convincing reasons in its support, there are potential criticisms and objections to it. First, opponents of Argument 6.2 might argue that human interests are more important than the interests of animals. Individuals who raise this objection are sometimes, in response, charged with “speciesism”, or the claim that unequal treatment of species is justified. Critics respond that speciesism, like racism and sexism, is morally wrong and inexcusable. It leads to human superiority and the exploitation of animals. However, speciesism, however, is very different from racism and sexism. Although humans and animals both experience pain, the degree of that pain can vary between the species. The difference in the degree of pain is the rationale for believing that humans and animals are not necessarily equal beings. The assumption can then be made that if they are not equal beings, humans and animals do not deserve the same ethical consideration. This thought process undermines the premise that the interests of humans and animals are of equal weight. — Caitlin Dillon

For more on this argument, see Gruen (2011, pp.62-66), subsection 6.4.1, www.statisticbrain.com/animal-testing-statistics, africanconservancy.org

P4 in P3 in Argument 6.2 asserts that our current treatment of animals causes them to suffer.

Thus, insofar then as it can be plausibly asserted that (i) animals can suffer (P1), that an animal has an interest to avoid suffering (P2), (iii) an animal’s interest to avoid suffering is the same interest as our own, and thereby should be awarded equal consideration (P3), and (iv) we currently treat animals in a way causing them to suffer, thereby privileging our own interests over theirs (P4), it is claimed to follow that our current treatment of animals is morally objectionable.

What sorts of practices ought to stop? Perhaps a start is factory farming, animal abuse, various sports involving animals (e.g. cock-fighting, dog-fighting, horse and dog racing), the development of various cosmetic products and non-essential medicines, and the use of animal hides for clothing should cease immediately. But as noted, the utilitarian theory does not issue a blanket prescription on any possible harm to animals for as we indicated at the outset, harm to beings with interests are justified provided it would increase the overall amount of happiness (or satisfaction of interests) in the world. Thus, it may be permissible to kill an animal if one is dying of hunger or test critical medicines on animals before issuing it to potentially millions of human beings.

**Objection 1.** The utilitarian theory requires impartiality toward interests (the unknown animal’s interest to not suffer is equal to a close friend’s interest to not suffer). This part of the theory is implausible. We cannot follow a moral theory that commands us to treat friendships, partnerships, or relations of dependency as though they were negligible.

**Objection 2.** Speciesism is not analogous to racism and sexism. With racism
and sexism, the differences between one race and another are illusory (or minute at best) and between man and woman are not sufficient to justify unequal treatment. However, while there may be no difference in kind between human beings and animals, there is such a difference in degree that it might be said that the pain of an animal pails in comparison to the pain of a human.

6.4.2 Rights

In contrast to the conditional prohibition that utilitarianism places on harming animals, awarding animals rights creates an absolute prohibition against harming them in certain ways. That is, insofar as animals have inalienable rights to life, freedom, and not to be tortured, then there can be no overriding end that would justify taking their life or abusing them. They cannot be used for research purposes, for food, or for entertainment (e.g. dog fighting).

Why should we extend such rights to non-human beings? One argument is this: What makes something intrinsically valuable is not that it is human or rational. Were we to say that only rational beings or only individuals who could enter into a contractual agreement have rights, then we would exclude many individuals whom we think are owed certain rights: individuals who have suffered brain injury, children, babies, individuals with severe mental disabilities, and certain elderly with degenerative conditions. According to one version of the rights theory, what makes humans and animals valuable is not how it might be used for such and such purpose (its instrumental value) and not that one’s life is going well or poorly or one is intelligent or not so bright. Rather, what makes something intrinsically valuable is that it is alive and that life matters to the individual living it. This implies that the being is consciously aware that it is alive and that it at least regards this life as important to it (even if no one else finds that life to be important).

Thus, the argument for awarding animal rights is this: if having-a-life-that-matters-to-oneself is what makes something valuable, then insofar as the life of animal matters to it, we must (under the pain of inconsistency) award animals rights.

Figure 6.18. Scope of Animal Rights Theory

**Objection 3.** If rights are absolute, then it would never be morally acceptable to inflict severe suffering on an animal (or human). But there seem to be (and there certainly could be) cases where doing so might be necessary to save prevent the suffering of another animal (or to save the lives of other animals).

**Question:** If having-a-life-that-matters-to-oneself is the criterion for something being awarded rights, what animals are included and which ones are excluded?
The rights theorist might respond to the above objection by invoking the “worse off principle” and the “miniride principle” (minimize overriding). These principles recognize that rights often conflict and we are put in situations where we are forced to violate the rights of a being in order to not violate the rights of another.

The **miniride principle** states that when confronted with having to violate the rights of many innocent beings as opposed to violating the rights of a few innocent beings, we ought to violate the rights of the few beings (assuming that the harm involved would be the same).

The **worse off principle** states that when considering the harm to two different groups or beings A and B, if the harm to A is greater than the harm to B, we ought to violate the rights of B by harming B rather harming A. This is also the case if there are more individuals in A than B. The worse-off principle thus says that when forced with violating someone’s rights, we have an obligation to those who might be worse off.

### 6.4.3 Moral Skepticism

One of the earlier assumptions we made was that animal suffering is a bad thing. That is, assuming two words $w_1$ and $w_2$, $w_1$ is better than $w_2$ if there is less pain in $w_1$ than there is in $w_2$ (all other things being equal). And, flowing from this assumption, we might contend that it follows that we have an ethical obligation to do things that promote a world with less suffering (whether it be because we have a direct duty to maximize happiness (preferences) or whether it be because animals have a right not to be unnecessarily harmed.

However, we might take a critical stance against these claims. That is, we might question (i) whether worlds with less pain are better than worlds with more pain and (ii) even if such worlds are better, whether we have an ethical obligation to promote worlds with less suffering.

**Objection 4.** Physical and psychological pain cannot be all bad. Both seem to play important functions in our lives. It tells us when we have cut ourselves and our hand needs mending. After a long run (or bout of exercise), it may inform of us some niggling muscle tear that we ought to be mindful of. If we are in a bad relationship, it may offer pointers that we should break up with our partner. In other words, we might contend that pain, when properly understood, is a not a bad thing. It sends us important information about the world and we would not want to live without it.

**Objection 5.** Let’s consider another objection to the idea that pain is bad and should be avoided.

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<tbody>
<tr>
<td>P1</td>
<td>Nature as a whole is good.</td>
</tr>
<tr>
<td>P2</td>
<td>Pain is part of nature.</td>
</tr>
<tr>
<td>C</td>
<td>Therefore, pain is good.</td>
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*Table 6.1. Argument from the Goodness of Nature*

One problem with the argument in Table 6.1 is that it commits the **fallacy of decomposition**. The fallacy of decomposition (or division) asserts that because a whole has a property, it follows that all of the parts have that property. But this type of reasoning is fallacious for it is often the case that the whole has a property that the parts of the whole lack.
6.4 To What Extent Should Animals Factor into our Moral Thinking?

Example 1  
Company A makes a lot of money. Therefore, all of the employees of Company A must make a lot of money.

Example 2  
A particular meal might be delicious but some of the individual ingredients are not delicious, e.g. beef marinaded in squid sauce.

Similarly, we might contend that just because nature (as a whole) is good, it does not follow that everything in nature is good. We might contend instead that some things are actually very bad and we (as natural beings) actually do our best to avoid these bad things as much as possible.

Finally, consider the second of the two main objections.

Objection 6. Even if a world with less suffering is better, we don’t have an ethical obligation to promote worlds with less suffering, at least in non-human beings. How might an argument be made for this claim?

The argument contains two parts. In the first part Table 6.2, it is argued that human beings are of more moral importance than animals.

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<tbody>
<tr>
<td>P1</td>
<td>If human beings were morally equal to animals, then we should be equally outraged at the killing / pain-infliction of a non-human being as we are at the killing of a human being.</td>
</tr>
<tr>
<td>P2</td>
<td>We are more outraged at the killing / pain-infliction of humans.</td>
</tr>
<tr>
<td>C</td>
<td>Thus, human beings are not morally equal to animals.</td>
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</tbody>
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Table 6.2. Argument that Humans and Animals are Not Morally Equal

With respect to P2, it is worthwhile to note that we don’t react to people who eat meat as killers. That is, we aren’t shocked by their presence in society, we don’t treat them with the same disdain, and we are probably not as quick to stop them from killing again.

Second, we can distinguish between actions that are morally required (what we ought to do given certain moral rules) and actions known as “supererogatory” (these are good acts that are above and beyond what is morally required of us). For example, why we might be morally required to help those in immediate need (e.g. call the fire department when we see a burning building), it would be a supererogatory act to rush into the burning building and save everyone’s lives. Generally, we think that someone who does a supererogatory act has done something good, but someone who refrains from doing it has not done something wrong. That is, you haven’t done something wrong if you didn’t risk your life by rushing into the burning building to save everyone.

With this distinction, the next part of the argument against the reduce of non-human suffering is to say that such reduction would be supererogatory (Table 6.3).

The idea here then is while refraining from eating, experimenting, or hurting animals is a good thing, it isn’t morally wrong to do so.
P1 In determining our moral duty, we are only required to consider individuals who are our moral equals and how our actions should impact them.

P2 Helping an individual who is not our moral equal is a good thing, but it isn't morally required (it is supererogatory).

P3 Non-human animals are not our moral equals (see Table 6.2). Thus, while it might be good to reduce the suffering of non-human animals, it is not morally required.

Table 6.3. Helping Animals is Not Morally Required

6.4.4 Indirect Duties to Animals

Why is hurting certain non-human beings that feel pain or regard their own lives as meaningful wrong? According to the preference utilitarian, we have an obligation to maximize the preferences of all beings and insofar as certain non-beings wish to avoid suffering, such preferences not to harm them must be considered. According to the rights-theory, it is wrong because what makes something have moral worth is (i) it being alive and (ii) it regards its life as meaningful. And, since some animals meet these two criteria, we have a duty not to harm without some overriding consideration.

Both the utilitarian and the rights-theory put certain non-human beings as morally equal to human beings. Their preferences matter in the same way that ours do. Their rights are to be respected in the same ways ours are.

An alternative to the central assumption of both is to argue that what makes hurting animals morally wrong is not because animals are our moral equals or that there is anything intrinsically important about the animals per se. Rather, it can be argued that what make hurting an animal morally wrong is that doing so corrupts or harms human beings. That is, torturing a dog might be taken as morally wrong, not because the torturer is violating the dog’s rights or increasing the amount of pain in the world by inflicting pain on the dog, but because torturing the dog either corrupts the character of the torturer (making them more inclined to violate the rights of human beings or harm other human beings).

Thus, animals might be said to matter morally but only indirectly. That is, only insofar as how we treat them plays a role in how we treat other human beings.
6.5 Environmentalist Objections to Liberationism

One consideration that could be taken when thinking about the moral scope humans should have concerning animals is how the animal may affect the morality of the human being. This idea is aimed at those who do not consider animals to be of as great of importance as human beings when it comes to moral consideration. One should consider not the life of the animal itself because that is not necessary of as much consideration as a human, but of the potential impact that killing the animal would have on oneself. Could the killing of this animal, even though it is of lesser importance, affect the way one treats human beings? A possible concern would be that after the killing of an animal, the killer’s perception of the importance of life may start to degrade. For instance, one of the workers on a cattle farm may have to slaughter the animals, and the repetitive killing of the cows may begin to wear on the worker. His stance on life may weaken, and this attitude may seep into his thoughts regarding human lives and beings of greater moral scope than animals.

Further Thoughts: Corruption of Human Beings

One consideration that could be taken when thinking about the moral scope humans should have concerning animals is how the animal may affect the morality of the human being. This idea is aimed at those who do not consider animals to be of as great of importance as human beings when it comes to moral consideration. One should consider not the life of the animal itself because that is not necessary of as much consideration as a human, but of the potential impact that killing the animal would have on oneself. Could the killing of this animal, even though it is of lesser importance, affect the way one treats human beings? A possible concern would be that after the killing of an animal, the killer’s perception of the importance of life may start to degrade. For instance, one of the workers on a cattle farm may have to slaughter the animals, and the repetitive killing of the cows may begin to wear on the worker. His stance on life may weaken, and this attitude may seep into his thoughts regarding human lives and beings of greater moral scope than animals.

This claim does not account for the general type of person who would take a job as an animal slaughterer. To be willing to take a job at a factory farm or a slaughterhouse, one would probably already consider animals to be of lesser importance than people but beyond that to animals having the same amount of importance as plants. One might consider taking the life of a cow for sustenance to be equivalent to the act of picking a tomato off the vine for consumption. This worker would not have to worry about moral corruption because to them, they are not doing something morally wrong. In order for one to be mentally corrupted by the killing of an animal, one must already consider animals to be of higher moral consideration.

It is also important to note that many of the people who raise their own livestock or that hunt for their own food tend to do so with great respect for the animal (see Figure 6.20). Many free-field farms allow their animals to live happy, productive lives, and then, when it is time for them to be killed, they are killed with dignity. The farmer or hunter realizes the importance of the life of the animal and knows that the animal is being killed so that human beings can continue with life. A farmer who owns a small cattle farm to provide his family with food would treat his cows with reverence, which means allowing them to live productive, happy lives prior to killing them quickly and relatively painlessly, as well as not taking for granted any of the parts of the animal. Again, this does not degrade anyone’s moral character because, with a mindset of human life taking precedence over an animal’s life, one would not believe one crossed a moral line with this act. Therefore, their character could not be corrupted. – Alison Kelly

Figure 6.20. Cows grazing in the fields behind Meyer Dairy.

Question: Does the rightness or wrongness of harm to animals depend upon how it influences human beings or is it independent of its effects on human beings? That is, would torturing a dog be morally wrong if, for example, it did not corrupt the torturer in any way with respect to their treatment of other human beings?

Question: Imagine that you were a “knocker” in a slaughterhouse. Your job is shoot cattle in the head with a gun that renders them insensible by sending a both through its brain. Unlike your fellow workers who deal with cattle after it has been killed, you and you alone are responsible for dealing the blow that begins the irreversible process of its slaughter. Now imagine that you shoot approximately 2500 animals a day (around one every twelve seconds). Do you think this would make you less insensible to human suffering?
The bulk of objections leveled at the liberationist view have largely been from the standpoint that the (i) theories that aim to explain why harming animals is morally wrong are unsatisfactory and (ii) animals do not deserve the same amount of moral consideration as human beings. These theories argue that such proposals are implausibly inflating our moral community to include beings that don’t really belong.

But consider another kind of objection, one not from an individual interested in narrowing the scope of moral consideration, but broadening it to include non-animals. Let’s call any attempt to try to broaden the scope of moral community beyond animals “an environmentalist’s view of the moral community” and let’s call the following objection “the environmentalist’s objection to liberationism.”

**Objection 1.** Let’s consider an objection The restriction of the scope of moral consideration to (i) pain-feeling beings and (ii) sentient beings that value their own lives is too narrow a form of speciesism.

| P1 | Liberationists include beings into the moral community only insofar as these beings approximate certain characteristics found in humans, e.g. pain-feeling, sentience, care for one’s life. |
| P2 | Liberationist is thus a form of speciesism, unjustifiably privileging one species over another based upon the fact that it a member of a species. |
| P3 | Speciesism is false. |
| C  | Therefore, liberationism is false. |

**Response 1.** Speciesism implies that the distinction between one species and another is illusory or based on ignorance (e.g. animals are not sentient like human beings) or that the difference isn’t sufficient for its purpose (e.g. we might say that there are differences between men and women, but argue that no such difference would warrant an unequal treatment of them). The environmentalist has not shown that (i) that non-human, non-animals are sentient or pain-feeling (ii) nor have they shown why pain-feeling or concern-for-one’s-life is not sufficient for its purpose, i.e. it hasn’t shown why making pain-feeling or sentience the characteristic of something being morally considerable is flawed in a way that requires us to expand the scope of moral consideration.

**Objection 2.** The liberationist commands us to bring to the extinction (or imprisonment) of all animal predators, i.e. beings that cannot help themselves from killing other animals. Foxes, owls, tigers, and wolves kill many rabbits, mice, and deer each year. If the utilitarian theory is true, we would maximize the overall happiness of prey by ridding the world of these predators. According to the rights view, animals have a right to life and to be free from pain, and we have an obligation to protect such rights, and thus should prevent predators from killing prey. This consequence is counterintuitive.

**Question:** The liberationist appears to restrict the scope of moral considerability to animals. Is this too narrow? That is, do we have any direct moral obligation to plants, insects, or perhaps fish beyond the fact that such beings have instrumental value for us?
6.6 Summary

In this chapter, the scope and extent of our ethical commitment was explored. In section 6.2, the claim known as “human exceptionalism” was articulated and criticized. This claim is, in short, that there is some difference in kind between human beings and non-human beings and that this difference in kind justifies a kind of moral disregard for animals. After tentatively concluding that human exceptionalism is a false claim and that at least some non-human beings are worthy of moral consideration, in section 6.3 we explored several different possible options concerning which beings are deserving of such moral consideration. Finally, in the concluding sections, a discussion concerning the scope of moral consideration continued but there was also a discussion of the extent (or degree) to which non-human beings should factor in our moral deliberation.

What can we take away from this discussion? On the one hand, it might be argued that while we retain the intuition that some non-human beings are deserving of our moral consideration, our grasp as to which ones and why is somewhat murky. Using certain characteristics that humans have but non-human animals lack creates problems for those human beings that might lack that characteristic to a lesser degree than animals (e.g. language, tool-use, reason, the capacity to engage other animals ethically, and so on). In addition, utilitarianism and rights-theory seem to be subject to serious problems insofar as the utilitarian in its effort to be impartial undermines relationships and allows individuals to be used as means to an end, while the rights theory struggles with its account of where rights come from, what to do when rights conflict, and how to reconcile our intuitions that the rights of human being just matter more.

Nevertheless, the skeptical route seems problematic as well. Causing animals unnecessary pain seems wrong and its wrongness cannot wholly be explained by pointing toward negative effects on human beings.
Chapter 7

Animals, II: Animals as Food

7.1 Factory Farms & Industrial Agriculture

In what follows, four different arguments against factory farms are presented. These are: the argument from intense suffering, the argument from negative environmental effects, the argument from harm to public health, and the argument from pricing (or economics).

7.1.1 Life on Natural Farms

For information on “Life on Natural Farms”, see PDF in ANGEL.

7.1.2 Life on the Factory Farm

For information on “Life on Factory Farms”, see PDF in ANGEL.

7.2 Arguments Against Factory Farms

For information on “Life on Factory Farms”, see PDF in ANGEL.

7.2.1 Argument 1: The Argument from Suffering

For the “Argument from Suffering”, see PDF in ANGEL.

7.2.2 Argument 2: Environmental Destruction

While the intense suffering that animals face on factory farms might serve as one reason to abstain (or even protest against) the purchase of animal products, a second reason concerns the effect that such farms have on the environment (see Argument 7.1).\footnote{For a detailed account of the environmental effects of CAFOs, see \url{http://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf}}

How might P1 be supported?

\footnote{For a detailed account of the environmental effects of CAFOs, see \url{http://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf}}
P1 Factory farms and industrial animal production results in serious negative environmental effects.

P2 Purchasing animal products directly supports and indirectly condones serious negative environmental effects.

P3 We ought, all things considered, to avoid doing anything that directly supports and indirectly condones serious negative environmental effects.

C Therefore, we should not purchase products produced by factory farms.

**Argument 7.1. Argument Against Factory Farms from Environmental Effects**

**air pollution:** there is more than 40 times more fecal waste produced by animals at CAFOs than human beings, and the decomposition of such waste pollutes the air (e.g. there is 8x more ammonia pollution from chickens than all industrial sources (Gruen, 2011, p.87).

**water pollution:** excess phosphorus and nitrogen from poultry manure gets into the water, stimulates algae growth that (when the algae dies) consume oxygen and thus suffocates fish.

**climate change:** livestock produce (14-22 percent) more greenhouse gas than every form of transportation combined (thus rather than buying an eco-friendly vehicle, it would be more environmentally friendly to stop supporting animal production).23

**water-consumption:** cows consume 990 liters of water to produce one liter of milk.

Thus, even if one does not recognize the suffering of animals as a legitimate reason to abstain from animal products, **Argument 7.1** argues that if one cares about the environment, then abstaining from such products is required.

---

2While animal production only produces 9 percent of CO2, it accounts for 65 percent of the nitrous oxide (296 times as warming as CO2), 37 percent of the methane (23 times as warming as CO2), and 64 percent of the world’s ammonia (acid rain). For more on this, see [http://www.un.org/apps/news/story.asp?NewsID=20772#.VE50zCLF-uJ].


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**Figure 7.1. U.S. Greenhouse Gas Emissions from Economic Sectors, 2012**

**Question:** Taking a look at **Figure 7.1** and **Figure 7.2**, would reducing the production of animal products lead to a decrease in greenhouse gases? If yes, do you find this a convincing reason to push for a reduction in the use of animal products? Explain your reasoning.
7.2.3 Argument 3: Public Health

Putting aside the suffering of animals and the environmental damage caused by factory farms, a third reason against factory farms is that they negatively impact human health in a variety of different ways. First, animal waste dumped into water can lead to infection if swam in while concentrated animal waste odor can cause respiratory problems. Second, in order to increase animal growth and to live in the cramped quarters of factory farms, animal feed and water is often supplemented with antibiotics.

One worry is that overuse of antibiotics creates drug-resistant bacteria that can pose a threat to human health. The claim here is that there is a positive correlation between the use of antibiotics in animal feed and water and antibiotic-resistant, food-borne illness in humans. Humans who contract these drug-resistant illnesses end up being hospitalized and infect others. For example, (Gruen, 2011, p.91) points to a study that indicates that approximately two million people were infected with drug-resistant bacteria in hospitals and 90,000 of those two million died.

Third, in addition to health risks as a result of direct human exposure with pathogens in animal waste or food, some research suggests that eating red meat is linked to an increased mortality rate. For example, a study done by Hu et al. at the Harvard School of Public Health found that individuals who consumed the largest quantities of red meat had the highest mortality rate. More specifically, individuals who ate an extra serving of red meat had an increased mortality...
rate of 13% (while those who had an extra serving of processed red meat had an increased mortality rate of 20%).

7.2 Arguments Against Factory Farms

| P1 | Factory farms and industrial animal production results in a number of serious (both actual and potential) public health problems. |
| P2 | We ought, all things considered, to avoid doing anything that directly supports or indirectly condones something that would jeopardize public health, e.g. sneezing on people, smoking, drinking and driving, sloth. |
| C  | Therefore, we should not purchase products produced by factory farms. |

Argument 7.2. Argument Against Factory Farms from Public Health Effects

Further Thoughts: The Argument from Public Health

Argument 7.2 asserts that we should not purchase products produced by factory farms because of certain health-risks associated with eating animal products. One such risk in particular is antibiotic resistance in humans due to eating meat. However, there is also another food related issue that poses just as much of a threat to human health, whether you are a carnivore or an omnivore. This issue is food-borne illness contracted during the shipping, prepping, and cooking processes of food. Even though there have been cases of food-borne illness linked back to the quality of the meat and the unsanitary conditions that farm animals live in, there are still many other ways that people can become deathly ill from food-borne illness, e.g. Escherichia coli and Salmonella.

When food is held at temperatures between 41 degrees Fahrenheit and 135 degrees Fahrenheit for a certain amount of time, this subjects the food to what is called the “Temperature Danger Zone.” This is when the food will be most prone to food-borne illness causing bacteria. This doesn’t happen with just meat. It happens with many other foods, such as vegetables. The Temperature Danger Zone can be reached during the shipping process of the food from distributors to handlers, or during the prepping and cooking process by the food handlers (see Figure 7.3). In the case of meat, if the meat is not cooked to the proper internal temperature that is specific to each type of meat, it can be just as dangerous as it would be if the animal was diseased when it died. The same idea applies to the preparation and cooking of vegetables as well. Even if humans are acquiring immunities to antibiotics, properly handling foods can decrease the amount of pathogens that people will become exposed to in the first place. 1 in 6 people contract food-borne illness each year partially due to food handlers mishandling food, and these illnesses can ultimately result in death. – Katherine Kauffman

7.2.4 Argument 4: Pricing Arguments

One of the arguments in support of factory farming is that the use of such industrial techniques results in inexpensive animal products. While such techniques may introduce significant suffering to animals as well as environmental and public health risks, it nevertheless results in inexpensive, protein-rich food for people who normally could not afford it. In addition, CAFOs provide jobs to workers, while taxes on these CAFOs help fund schools and other local infrastructure.

Objection 1. P1 is false. While industrialized animal production may produce inexpensive, protein-rich food, and while it may be cost-effective for the producer, it is not cost-effective more generally. There are a variety of costs absorbed by the public that were the factory farm to pay for, producing animals in

Question: What do you think of the argument that we ought to avoid purchasing animal products produced by factory farms because it is a public health concern?

Figure 7.3. "Dinner" taken by Katherine Kauffman on October 30, 2014 at West Dining Hall at Penn State University. This picture shows an example of a meal that anyone might eat. The plates have a variety of food, including vegetables and meat, so a carnivore or an omnivore might eat certain food from this meal. The vegetarian wouldn’t choose to put ham on their salad or eat pizza with chicken on it. If this food wasn’t handled properly during shipment or while it was prepared, the person could become ill with a food-borne illness whether or not they ate the meat. Their illness doesn’t have to be a direct result of the antibiotic resistance due to meat consumption, because even a vegetarian who eats meat could become ill with food-borne illness after eating a meatless meal with no added antibiotics.
P1 Factory farming is the most cost-effective way to make protein-rich food.
P2 Selling protein-rich food that people can afford is a good thing.
C Therefore, factory farms are the best way to produce protein-rich food that people can afford.

**Argument 7.3. Economic Argument for Factory Farms**

this way would not be productive. That is, there are health costs, financial costs (e.g. decreased property values) for those who live nearby, financial costs for other industries (e.g. fishing), government subsidies, costs associated with environmental cleanup. As Gruen (2011, p.92) writes “the price of a pork chop or a chicken wing does not reflect the truth costs.”

P1 Factory farming is not the most cost-effective way to make protein-rich food once all costs are considered.
P2 It is not acceptable for factory farms to divert costs associated with factory farms onto non-consumers (e.g. vegetarian taxpayers).
C Therefore, factory farms are not an acceptable way to produce protein-rich food that people can afford.

**Argument 7.4. Economic Argument Against Factory Farms**

7.3 The Limits of Vegetarianism

In previous sections, a number of arguments against factory farms were presented (see Figure 7.4). These arguments invoke a mix of ethical and practical considerations about whether purchasing animal products from factory farms is something individuals should be doing.

Assuming that there are strong reasons for avoiding products produced by factory farms, this conclusion opens up two different types of vegetarianism (against the omnivore and extreme purely meat-eating positions):

<table>
<thead>
<tr>
<th>Definition – Universal (Absolute) Vegetarianism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Killing or eating animals is always unacceptable. It is never acceptable to kill an animal or to knowingly eat animals as food.</td>
</tr>
</tbody>
</table>

**Question:** Putting aside the issues of suffering to animals, all costs considered, do you think that factory farms are a more economically-wise choice? If you are undecided, what sorts of information would you want to know in making this decision?

**Question:** Are the arguments from suffering, from environmental harm, from harm to public health, and from harm to the economy *intellectually exhaustive* of all of the reasons why someone might be against factory farms? If not, what other reasons are there for being against factory farms? For example, if you don’t use animal products, does one (or a combination) of the arguments mentioned capture the reason why you don’t use animal products?

**Question:** Are the combination of the arguments from suffering, environmental harm, harm to public health, and harm to the economy *intellectually persuasive*? That is, could you convince a rational and intelligent person with no strong views on the issue of factory farms to be against factory farms? Could you convince someone who used animal products, does one (or a combination) of the arguments mentioned capture the reason why you don’t use animal products?

**Question:** Which of the four arguments do you find most persuasive? Which do you find least persuasive?

**Question:** What additional factors would be necessary to get someone to stop using animal products? That is, assuming these arguments are rationally persuasive and using animal products produced by factory farms is clearly wrong, people might nevertheless still do what is wrong. What other things are required to get someone to stop using animal products?
### Definition – Contextual (Conditional) Vegetarianism

The killing or eating of animals ought to (on the whole) be avoided, but it is acceptable under certain circumstances. There are some contexts where it would be acceptable to either kill or eat an animal.

### Definition – Omnivore

A person whose diet consists of a variety of food sources (including animals) and (at least in practice) contends that there is no conditions required to make the eating of meat acceptable (i.e., you can eat meat products if you wish).

### Definition – Meat Eater

A person whose diet consists solely of meat products.

#### 7.3.1 Starvation: Us or Them?

One argument that might be raised against universal vegetarianism is starvation. We can imagine progressively dire and extreme circumstances where it might not simply be morally permissible to kill and eat an animal, but it might be morally required.

**Example 1**

Suppose, for example, you are lost in the woods for several weeks and are starving to death. You come across a rabbit that appears to be nearing its last days of life. You could kill it, eat it, and thereby survive (perhaps this would give you the strength to find your way back to civilization) or you and the rabbit can live out your last few days of life in the woods before the rabbit dies of natural causes and you die of starvation.

**Example 2**

Suppose you and your five-year-old child are lost in the woods and you are starving. While you might decide that you cannot kill an animal to preserve the continuation of your own life, you have a responsibility for the continuation of your child’s.

**Example 3**

Imagine that you are starving, have a gun, and there is a grizzly bear charging you. You could let the animal devour you on the spot, or kill the grizzly bear and then eat the bear.

Let’s call one argument for the contextual form of vegetarianism over a universal form of vegetarianism, the “Argument Against Universal Vegetarianism: From Starvation” (see Argument 7.5).

**Question:** Do you see any problems with Argument 7.5?
P1 Universal vegetarianism says that it is never acceptable to kill and eat animals.

P2 There is at least one condition under which killing and eating animals would be acceptable, e.g. where not killing animals would lead to human death.

C Therefore, universal vegetarianism is false, and thus contextual vegetarianism is the only suitable vegetarian option.

**Argument 7.5. Argument Against Universal Vegetarianism: From Starvation**

### 7.3.2 Limited Access

Another argument against universal vegetarianism is that it might be unreasonable to ask certain individuals to abstain from eating meat. Individuals living in Arctic areas might rely on it for a primary source of food and having them ship in vegetarian alternatives might do more harm to animals than good. While there are a number of articles and blog entries about eating a vegetarian diet on a budget, the central difficulty for some (not-necessarily poor) people isn’t simply about being able to afford non-meat foods but getting access them.

One study (*Franco et al.*, 2009) found that 24% percent of black individuals in Baltimore (a sizable chunk coming from poor communities) had limited access to healthy food (in comparison to 5% of white individuals). The idea then is that while certain poor individuals might be able to eat canned beans and rice everyday, they don’t have access to healthy vegetarian options. Thus, so the argument might go, universal vegetarianism is false as it requires poor individuals to limit their already constricted dietary options.

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
<th>Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramen 12-pack</td>
<td>$2.22</td>
<td>Walmart</td>
</tr>
<tr>
<td>Starkist 4-pack Tuna</td>
<td>$5.34</td>
<td>Walmart</td>
</tr>
<tr>
<td>Meal Total</td>
<td>$0.19 + $1.34 = $1.53</td>
<td></td>
</tr>
</tbody>
</table>

*Table 7.1. Omnivore Diet on a Budget*

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
<th>Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Beans, 12 cans</td>
<td>$14.91</td>
<td>Walmart</td>
</tr>
<tr>
<td>Walmart Brand White Rice, 10lbs</td>
<td>$14.88</td>
<td>Walmart</td>
</tr>
<tr>
<td>Meal Total</td>
<td>$1.24 + $0.74 = $1.98</td>
<td></td>
</tr>
</tbody>
</table>

*Table 7.2. Vegetarian Diet on a Budget*

### 7.3.3 Health Issues

While there are a range of health issues associated with over-consumption of animal products, there are a range of health issues associated with not eating any meat. The central health concern is B12 deficiency. B12 is found in animal rather than plant food sources and B12 deficiency, which takes years for symptoms to show, can cause serious health issues. One study showed that 5% of omnivores suffer from B12 deficiency as compared to 68% vegetarians and 83% of vegans.\(^5\) Non-meat-eaters tend to have lower levels of creatine\(^6\) which

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\(^5\) Vitamin B-12 status, particularly holotranscobalamin II and methylmalonic acid concentrations, and hyperhomocysteinemia in vegetarians. [http://ajcn.nutrition.org/content/78/1/131.long](http://ajcn.nutrition.org/content/78/1/131.long)

\(^6\) The influence of creatine supplementation on the cognitive functioning of vegetarians and omnivores. [http://journals.cambridge.org/action/displayAbstract?fromPage=online&](http://journals.cambridge.org/action/displayAbstract?fromPage=online&
plays a role in brain function.\textsuperscript{7} Other studies showed that vegetarians tend to have greater deficiencies in protein, omega-3, omega-6, calcium (in vegans), and iron (although some of these may be due to not eating a healthy vegetarian diet than being vegetarian).

The argument then is that while a vegetarian option might be more humane, environmentally friendly, health-friendly, and economic option, universal vegetarianism is false. In order to ward off nutritional deficiencies, it is acceptable to deviate from a strict vegetarian diet.

**Further Thoughts: Defying the Limitations of Vegetarianism**

There are two different levels of vegetarianism. One level is universal or absolute vegetarianism. *Universal vegetarianism* is defined by the attitude that the killing or eating of animals is always unacceptable and animals should never knowingly be consumed for human benefit. The second level of vegetarianism is *contextual or conditional vegetarianism* where the killing or consumption of animals should be avoided however, there are some circumstances where it would acceptable to kill or eat an animal.

Within class, we discussed some limitations of vegetarianism; limited access to vegetarian foods, health issues, social disruptions, dead animals, and the consumption of animals when starvation is apparent. I will be focusing primarily on the health concerns that critics believe universal vegetarianism generates.

In short, I will argue that with the proper resources and education, the universal vegetarian diet can provide all of the vital nutrients if the proper foods are consumed and is preferable (from the standpoint of health) to the omnivore’s diet.

First, one criticism to universal vegetarianism is that a universal vegetarian diet, if done incorrectly, can lead to severe vitamin and mineral deficiencies. Critics of the vegetarian diet claim that there are too many vitamins and minerals lacking from an all plant-based diet especially Vitamin B-12, which is vital for cognitive development. However, this can be fixed with a supplement, therefore leading to this argument being invalid. While vegetarians should not rely solely on supplements, they are a great way to boost any lacking component in their diet.

Second, if health concerns are the primary reason for determining a particular diet, then the vegetarian diet (of any particular variety) is preferable to the omnivore or the purely-meating-eating diet. Animal products are packed full of cholesterol and saturated fat that, if consumed too readily, can lead to a higher risk of contracting heart-related diseases. Heart disease is the number one killer in America and that is due to the high consumption of animal products within our nation. In addition to increased risk of disease, the consumption of animal products is related to acne and wrinkles. If one were to switch to a vegetarian diet, their health would skyrocket. The power of fruits and vegetables are so powerful; they offer plentiful vitamins, minerals, fiber, antioxidants, and of course, they taste delicious (see Figure 7.5)!

Third, aside from the plentiful physical health benefits a vegetarian diet can present, a plant-based diet can enrich a person’s spiritual health. Imagine yourself taking a knife to an innocent cow; the first stab, the cow is overwhelmed with a sense of pain, and all it can wonder is “why me?” As the cow is being slaughtered so many negative energies of pain and sorrow are flooding through the animal’s body. Once the animal is dead, that energy remains within it, and then once sold for human consumption, that negative energy is being stored within that person’s body.

Now, not everyone will agree with my concept of energies, however it is one particular outlook on life that I will never let go of. Animals have a right to life just as humans do. And by always exemplifying love and care to them rather than harm and death, human’s can better their heart and soul by eating fruits and vegetables rather than a living, breathing, animal with the ability to feel pain. So in conclusion to the critique that a vegetarian diet is more harmful than helpful, I fully disagree. The benefits of decreased risk for diseases, an enriched soul, clear skin, a longer lifespan, and being able to view every living being as an equal are more important all outweigh any negative comment about vegetarian. More power to the animals! – Maddie Bunnell

\textsuperscript{7}http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1691485/

aid=8207518. See also http://www.ncbi.nlm.nih.gov/pubmed/14600563
7.3.4 Dead Animals and Social Disruption

Example 1 – Mistaken Order

Suppose you are a universal vegetarian, you are at a restaurant, and order what you think to be a vegetarian dish (e.g. a salad). However, when your salad arrives, you see that the chef inadvertently put chicken, bacon bits, and egg into it.

Example 2 – Grandparents

You are at your grandmother and grandfather’s home. They are looking forward to seeing you as it has been over a year. Your grandparents are so excited that they have prepared a special meal that it took them all day to make. It is a roast. Your grandparents tell you about how they went to the butcher to get the roast, the conversations they had with the butcher, and the time they spent preparing the roast. They are excited for you to try it and are likely to be very disappointed if you decline.

In both cases, the universal vegetarian seems to be put in a circumstance where it might be advisable to temporarily abandon their commitment to not eating meat. In the restaurant case, you can not eat the meat (or send the dish back) and the meat will be wasted (the animal died for nothing) or you can abandon universal vegetarianism. In the grandparents case, you can tell your grandparents that you don’t eat meat and their feelings will be hurt or you can abandon universal vegetarianism.

7.3.5 Farming Animals Humanely

A final condition under which it might be acceptable to eat animals is if they were raised in a humane way. We already considered one type of argument for this (see ANGEL PDF).

7.4 Summary: UV, CV, Omnivore, or Meat Eater

We have considered a number of reasons why, on the one hand, using animal products might be wrong from the standpoint of some ethical theory (consequentialism, rights theory) or that it should be avoided on the basis of our moral intuitions (the argument from suffering) or other ethical-practical considerations (public health issues, environmental issues, economic issues). These arguments suggested the conclusion that it is never acceptable to kill or eat animals (universal vegetarianism), but this too was subject to a number of objections and seemed to make “contextual vegetarianism” (the view that while eating meat ought to be avoided, there are some acceptable conditions under which it might be acceptable to kill and/or eat animals) the more defensible position. Nevertheless, contextual vegetarianism is not without its problems for it is difficult to give an exhaustive account of all of the conditions that make it acceptable to use animal products.

Question: Given the range of different positions you can take with respect to using animal products, which option do you think is the most intellectually defensible? Which stance best reflects your current practices?
7.4 Summary: UV, CV, Omnivore, or Meat Eater

- Universal Vegetarian
- Contextual Vegetarian
- Only Eats Factory Farm Meat
- Omnivore

Diagram showing the relationships between these categories.
Chapter 8

Life

8.1 Introduction

In chapter 6 and chapter 7, various questions were raised about what non-human beings should factor into our moral consideration and to what extent. In this discussion, several arguments were put forward to exclude certain non-human beings, specifically non-living beings, those incapable of feeling pain, and those that seem to lack consciously-held desires. The thrust of this line of argument was directed at limiting the scope of moral consideration to beings much like ourselves.

We might, however, question this whole line of argument and wonder what our ethical responsibilities are to non-human and non-animal beings, e.g. plants, rivers, mountains, and so forth. Are these things intrinsically valuable and deserving of our moral respect in a way that we cannot use these things in any way whatsoever? Or, is the value of these beings simply found in how they can benefit human beings (and maybe animals)?

In this chapter and chapter 9, we reconsider various proposals that things like plants, rivers, mountains, and landscapes are deserving of our moral respect beyond the value they provide to humans?

8.2 The Moral Worth of Plants

It is uncontroversial that plants have instrumental value. And, we ought to be concerned about plants insofar as it has an effect on beings that matter, i.e. humans (and maybe animals).

<table>
<thead>
<tr>
<th>Definition – Instrumental Value</th>
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</thead>
<tbody>
<tr>
<td>An object $x$ possesses instrumental value insofar as it can be used to attain something else of value. That is, $x$ is valuable not in itself but to the degree it allows for attaining things that are valuable in itself.</td>
</tr>
</tbody>
</table>

Insofar as plants have instrumental value, it can be said that we have “indirect duties” to plants.
### Definition – Indirect Duties

A has an indirect duty to B if and only if A ought to act in such and such way with respect to B, not because of any inherent feature of B itself, but in virtue of the fact that A’s actions toward B fulfills a direct duty A has to some being that is inherently valuable.

### Example 1

An earlier example we considered was the claim that human beings may have indirect duties to animals. That is, we have a duty (obligation) not to torture animals because doing so might increase the likelihood of treating human beings poorly (and we have a direct duty to humans).

Why and how do we have indirect duties toward plants? Indirect duties stem from the fact that plants have instrumental value for human beings and so they can be used in ways to make the lives of humans better or worse. Plants satisfy certain material needs in the form of medicine, food, and the production of \( \text{O}_2 \) and perhaps even aesthetic needs insofar as they are a part of beautiful places (e.g. flowers are nice to look at). Thus, insofar as plants serve these two needs, it can be argued that insofar as we care about how our treatment of plants effects human beings, we have certain duties or moral obligations to plants. What this means, practically speaking, is that we cannot treat plants in any way we feel.

One question then is whether our concern for plants can be more encompassing? As Belshaw (2001, p.122) puts this claim:

> Many people argue that it is not simply because of their usefulness that plants matter, not simply because and when we like the look of them that their destruction is wrong. We ought to be concerned for plants just for their own sake, and to see that as living things they, as well as, even if not as much as, animals, have a claim to our consideration.

That is, we might consider a different understanding of our various ethical obligations to plants by adopting what is called a “biocentric ethics”.

### Definition – Biocentric Ethics

An ethical theory that contends that all life possesses intrinsic value.

### Definition – Intrinsic Value

An object \( x \) possesses intrinsic value insofar as \( x \) has a good of its own (independent of what it can be used for).

Insofar as something has intrinsic value, we might say that our duty to that thing isn’t indirect but “direct”. That is, since plants are objects worthy of respect and plants have value independent of the purposes for which we might use it, practically we cannot use plants in whatever way we see fit. We cannot, for example, destroy all of the plants of a particular species or subject plants to horrible environment conditions.

### Question:

Briefly consider some ways in which harming plants might be considered morally wrong solely because it would lead to negative effects for human beings.
In asserting that plants have intrinsic value and that we have direct duties to plants, what is being asserted is that we can treat plants badly and this bad action is not derivative of a badness down to humans. That is, we can treat a plant better or worse (in the ethical sense) independently of how this treatment effects human beings (or animals). This is not to say that plants are shown to be equal in moral worth to human beings and that human beings would be strictly prohibited from eating plants (assuming that plants have a right to life). What it instead would assert (at least to start) is the vague claim that human beings cannot use plants in whatever way they see fit, i.e., we could say that someone was doing something “morally wrong” by treating a plant in some particular way that we identified as not respecting plants.

But the idea that plants are intrinsically valuable, deserving of respect, and hoisting certain direct duties on human beings strikes many people as rank nonsense and counter to common sense. But those who believe that we do have such duties to plants argue that anything that might be harmed, benefited, diminished, hurt, helped is deserving of respect and has intrinsic value. They argue that (i) plants can feel pain and so we have a direct duty not to cause them pain or (ii) plants have interests and rights, and we thus have certain direct duties not to interfere with a plant’s interests.

## 8.2.1 The Pain of Plants

Some individuals have claimed that plants feel pain. For example, Grover Cleveland Backster Jr. (who worked for the Army Counter-Intelligence Corps and CIA) asserted that tests done using polygraphs showed that plants feel fear prior to the burning of their leaves.\(^1\) More recently, there have been several television episodes showing experiments that appear to demonstrate that plants do, in fact, feel pain.\(^2\)

### Objection 1.

Various experiments purporting to show that plants feel pain only show that plants respond to electrical current. This confuses responding to a harmful stimulus with the experience of feeling pain. We can imagine a robot with certain “sensory receptors” such that whenever the receptors are activated, the robot pulls away and grimaces, but insofar as the robot does not process this information emotionally as unpleasant, we cannot, strictly speaking, say the plant robot feels pain.

Let’s suppose that we don’t know whether plants feel pain. Is there any way to argue that plants do feel pain? One possible argument might be made for the

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2. Smithsonian Channel: *Do Plants Respond to Pain, Mythbusters Episode: Plants Have Feelings*.

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8.2 The Moral Worth of Plants

case of pain-feeling in plants is (see Argument 8.1)

| P1 | It was previously thought that new-born babies and animals did not feel pain. |
| P2 | It was later discovered that they do feel pain. |
| P3 | Currently, it is not thought that plants feel pain. |
| C  | Therefore, it will ultimately be discovered that plants do feel pain. |

Argument 8.1. The Argument for Pain in Plants

This argument is problematic for a number of reasons.

**Objection 2. Explosive.** The argument is explosive in that the argument can be used to assert that inanimate objects feel pain. Since, currently it is not thought that rocks feel pain; therefore, it will ultimately be discovered that rocks do feel pain.

**Objection 3. Invalid and Inductively Weak.** Not only is it possible for the premises P1, P2, and P3 to be true and the conclusion to be false (i.e., the argument is invalid), but there isn’t any evidence to support the conclusion. In fact, there is evidence supporting the negation of the conclusion in that (i) plants observably react the same way to pain-inducing actions (e.g. burning of leaves) and (ii) plants lack the same inner physiological structures that make pain possible.

8.2.2 An Instrumental Argument for Rights in Plants

Let’s suppose that plants cannot feel pain. We might get at the conclusion that plants have intrinsic value in another way. Namely, we might argue that awarding plants rights (or some kind of moral status) would be beneficial to the environment at large.

| P1 | We ought to do what is necessary to help the environment. |
| P2 | It would benefit the environment if we were to given natural objects rights. |
| C  | Therefore, we ought to give natural objects rights. |

Argument 8.2. The Simple Argument for Rights in Plants

**Objection 4.** This sort of argument does not show that plants are the types of things deserving of rights, only that it would be beneficial for us to treat plants as having rights. On this account, it isn’t really the case that we have a direct duty to plants (or they are worthy of our respect), only that in order to maintain their instrumental value, it might be beneficial for us to trick ourselves into thinking that plants are things worthy of respect and thus deserving of rights.

**Further Thoughts**

The planet Earth is made up of many different living beings, all of which are needed in order to maintain a delicate balance. The sun feeds the plants, animals eat the plants, and then other animals eat them. All of these parts are essential to the system. Plants however, do not deserve the same moral obligation as the rest of the living beings. They are only needed because they are instrumentally valuable.

Figure 8.2. Dead Plant. I took this photograph on December 7, 2014 in my dorm room. Humans have no moral obligation towards plants because they cannot feel pain.
The main reason that plants should not be given the same moral obligation of animals is that they are not able to feel pain. Plants are able to react to stimuli though. For example, when grass is cut it releases a chemical compound that acts as a distress signal. Some may say that this is proof that plants can feel pain, but this is not the case. Plants do not have pain receptors or a nervous system. This means that they will not experience pain in the same way that humans do. Plants will not go through suffering; they will merely react to it.

?? is a dead plant that is in my dorm room. I forgot to water it recently and it died. I do not feel any remorse over this. It does not feel pain, so I have no moral obligation towards it.

Another reason is that plants do not have conscious interests. Humans have a brain and will do what they want to do. The same goes for animals, but this is not seen in plants. In some instances, plants will grow towards the sunlight. Some see this as a conscious interest. Although it may appear this way at first, they are not actively thinking that they want the sunlight. They do this because of the hormone auxin. It causes them to find the shortest route to sunlight, and then grow in that direction. It is the cause of a chemical reaction, and not an interest.

The only reason that humans have to treat plants with some amount of respect is that they are instrumentally valuable. Humans need them in order to create medicine for illnesses. Also, plants are essential to the environment. Without them all of the animals that eat them would die, which would lead to the death of humans too. Humans cannot go around destroying forests because this would be detrimental to us. We need plants and that is why we value them.

One main criticism to this argument to this is that people in a coma cannot consciously feel pain. If we follow the idea that if a being cannot consciously feel pain then we have no moral obligation to them, then this means that we have no moral obligation towards people in a coma. We could kill a person in a coma like a plant and feel no remorse over it.

This is clearly not the case though. People in comas are treated with the same amount of respect as any other person. They are given care, fed, and treated well. Some may say that since we treat people in comas well that we should also treat plants well. This idea does not hold up though. The people are able to recover from their condition. It is possible that they will come out of it at some point. This is not true for plants. They will never be able to consciously feel pain, so they should receive no moral consideration. –Ryan Kirby

8.2.3 Interests and Rights of Plants

Drawing on the assumption that we have a direct duty not to harm something or someone that can be harmed, even if we assume that plants cannot feel pain, we might nevertheless contend that plants can be harmed. That is, we might contend that plants fall into the scope of moral consideration and we have direct (moral) obligations to them since plants have interest and to interfere with these interests by way of killing them, thwarting their growth, or subjecting them to miserable conditions would be wrong.

That is, let’s assume then that plants are not capable of feeling pain. We might nevertheless still maintain that plants can be harmed in recognizable ways, i.e., we might harm plants by interfering with their interests.

| P1 | Plants are things that might be directly harmed or benefited (i.e., plants have an interest in not being harmed). |
| P2 | Anything that can be harmed or benefited (and thus has interests) is deserving of rights. |
| C  | Therefore, we ought to give plants rights. |

**Argument 8.3. The Interests Argument for Rights in Plants**

There are two lines of criticism with respect to Argument 8.3. The first line of
criticism asserts that it is rank nonsense to say that plants have interests since interests depend upon having a mind and plants lack minds. The second line of criticism contends that even if we assume that plants do have interests, it is impossible to determine what these interests are and so attributing rights to plants yields no practical consequences.

Let’s consider the first objection in a few different forms (see Objection 5 and Objection 6).

**Objection 5.** P1 is false. In order to have interests, one needs to be able to consciously feel pain (interests are defined in terms of pleasure and pain). Since plants lack the capacity to consciously feel pleasure or pain, they lack interests.

**Response 1.** Belshaw (2001, p.127) responds to this objection by arguing that plants can have “interests” in a sense and in this sense, what is in our interests need not require a mental life or the capacity to feel pain: “sentience may be a sufficient condition of a creature’s having interests, it is not immediately clear why it should be considered necessary. What I want, and what is good for me don’t always coincide.” So, while a drunk may consciously desire to drive home, it uncontroversial to say that it is in that drunk’s best interest to get a cab, walk, or hitch a ride with a friend. The drunk has interests that s/he is not consciously aware of.

**Objection 6. Interests Depend Upon Sentience of Some Sort** Just because something $x$ can be said to be in my best interests yet I do not **consciously** desire $x$ does not mean that $x$ being in my interests does not depend upon mental life in some other way. That is, while the drunk may not consciously be aware that it would be in his interests to drive home, we might say that it is in his interests were he to be in a sober state and in full awareness of the potential consequences that come with driving while intoxicated. That is, while $x$ is not in his interests insofar as he consciously desires $x$ in the here and now, $x$ might be said to be in his subconscious interests (or his interests as a fully reflective agent).

Insofar as plants do not have a subconscious and cannot be fully reflective, it makes no sense to say something is in their best interests.

The second line of criticism states that even if we grant plants have interests, it is nevertheless impossible to determine what is in a plants best interests. Belshaw (2001, p.129) argues that determining the good of plants is uncontroversial; we simply need to look to the “internal mechanisms or principles of governance that determine the proper development of those things over time.” So, for example, chopping down a sapling would be bad for it since the proper development of the sapling would be to grow into a full sized tree.

**Objection 7.** The idea of their being a proper development of a natural object is in that objects interests commits the appealing to nature fallacy.
Belshaw assumes that just because something normally (naturally) develops in a particular environment, we can attribute that it is in that thing’s best interests to be in that state. The problem with this claim is that it assumes that how something naturally develops is how that thing should be.\(^3\)

### 8.3 Biocentrism and Justifying Harm to Plants

One approach to ethics is to consider what characteristics make human beings intrinsically valuable. Once these characteristics are isolate, the scope of the moral community is expanded to the extent that other beings possess such human-possessed characteristics. This approach might be called “anthropocentric ethics”

**Definition – Anthropocentric Ethics**

- Human beings are superior to other living things and beings have intrinsic value only insofar as they approximate certain distinctly human capacities in some way.

We followed the anthropocentric approach in a number of arguments for including animals within the moral community, e.g. we have direct duties to animals because they feel pain like us.

In contrast to this approach is an ethics that awards intrinsic value to *all living things*. This approach is known as “biocentric ethics” and the approach tends to be committed to four main claims.

**Definition – Biocentrism**

1. humans and all other living things are members of the Earth’s Community
2. all living things depend not only on the environment but in a state of interdependence with other living things
3. all living things pursue their own good in their own way
4. human beings are not inherently superior to other living things

Let’s consider two different forms of biocentrism: “biocentric egalitarianism” and “modest biocentricism”.

**Definition – Biocentric Egalitarianism**

The ethical theory that contends that all living things are inherently valuable and that human beings are not superior to any other living thing in the moral sense.

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\(^3\)I am actually a little confused by what Belshaw is asserting since later Belshaw (2001, p.128) writes that we can assert that something bad has happened to something even when the event is a result of the workings of nature. I understand his claim that what is good for cancer cells is bad for humans, but what I can’t make sense of is how he can say this with respect to things like genetic defects that lead to agonizing situations.
Both theories share the view that all living things are inherently valuable and that harm to living objects requires some justification (we cannot destroy plants willy nilly). Where there theories differ is with respect to whether non-human living beings matter as much morally as human beings.

Assuming that plants can be harmed (in some sense), the biocentric position contends that such harm requires justification (or reasons). What qualifies as a reason that allows us to inflict harm on living things is an easy issue to settle at the extremes but there are a number of hard cases that resist straightforward analysis.

**Justified Harm:** harm to plants is justified in order to save animal life, e.g., it is morally acceptable to eat plants or to use plants (e.g. trees) to build a shelter.

**Unjustified Harm:** harm to plants is not justified when it involves their wanton destruction, e.g., burning a forest for no reason, chopping down a tree to watch it fall, watering your house plant with alcohol.

But there is significant middle ground between the justified killing of a plant to save the life of another living being and the pointless destruction of living things.

**Example 1 – Case 1, Building Your Dream Home**

After much hard work and many prudent investments, you are ready to purchase a home. While there are a number of suitable candidates in the area you would like to live, but none meet your specific desires. So, you find a plot of “unused” land and consider the possibility of purchasing that plot of land, clearing away the trees that occupy it and building a new home. Your new home will require the killing of more plants as part of your home will be made of wood.

Is your harm to plant life justified?

**Example 2 – Case 2, Pool Party at My House!**

Las Vegas currently relies on water from Lake Mead (a reservoir made by the Hoover Dam in the Colorado River). The water levels have been dropping over the last ten years, partly due to drought and partly due to increased consumption by those living in the Las Vegas metropolitan area. In order to meet the water demands of the 2 million residents and 40 million visitors to the Las Vegas area, the Southern Nevada Water Authority (SNWA) has proposed to build a 15 billion dollar water pipeline that would effectively siphon groundwater from across Nevada. The Center for Biological Diversity has sued the SNWA, claiming that pipeline project would siphon rural groundwater and turn meadows to dust.

Assuming that no human beings will be harmed by the water pipeline...
and the ecological damage of turning the meadows to dust is offset in other ways (let’s just say planting a lot of trees in Pennsylvania). Is the harm to plant justified?

In other words, while there may be some clear-cut cases where of justified and unjustified harm, there are a number of cases where our intuitions are not in consensus. That is, intuitions cannot be our only guide when it comes to these borderline cases.

**Further Thoughts: Biocentrism and Justifying Harm to Plants**

The biocentric position states that human beings are not superior to other living objects because we are all apart of the Earth’s Community (section 8.3). All living things depend on each other for survival making us all equal in worth. Under this theory, we must justify our reasons for harming plants. There are two categories for the rationals to fall under: justified harm and unjustified harm. Things such as eating plants for survival or using plants as shelter fall under justified harm, but actions like burning a forest without reason or chopping down a tree are unjustified harms to plants (section 8.3.1).

Looking at society’s traditions, there are some actions that involve unjustified harm to plants. For example, for decades, human beings have held the tradition of cutting down evergreen trees for the sole purpose of decorating them with lights and ornaments to celebrate Christmas (see Figure 8.4). The tree, itself, has no connection to the original meaning of Christmas. It actually has a pagan history, but year after year we cut down the evergreen trees and place them in our homes to stare at and sing Christmas songs around. According to biocentrism, there is no justification for Christmas trees besides preserving a human tradition, which is not justifiable. We farm the trees, much like we raise cattle, only to be cut down and die inside a house. It’s a very short process and in the end the tree is removed from the house and left to die. But at this point we are unconcerned with the trees inevitable end.

The obvious counterargument to the biocentric theory is the anthropocentric one, which states that “human beings are superior to other living things and beings have intrinsic value only insofar as they approximate certain distinctly human capacities in some way.” So unless the other living things have human characteristics, they are below human beings therefore giving us the right to do whatever we want. In this way, we are justified in killing the trees because we can overpower them and the trees are below us.

The problem with this approach is that it could potentially bring the demise of the planet and mankind. If we take this approach to heart and follow these ethics, we would be allowed to destroy any nonhuman-like living things i.e. trees. Without trees, we would not be able to survive because they provide clean air for us to breathe. There must be a balance between the two theories.

That’s where the modest biocentric approach comes into play, which states that plants and other living things have intrinsic value, but human beings are still superior (section 8.3). We must be conscious of our actions and how they may affect the planet. Returning to the Christmas tree example, we can still uphold our holiday traditions without harming the evergreens. Nowadays, there are fake Christmas trees made out of plastic that can be purchased at stores. The “trees” can last for years, unlike a real tree that is very short lived and requires constant care. It is also a one time purchase and can be easily stored away during other times of the year. Or you can even take a more abstract approach with the Christmas tree (see Figure 8.5). The point is that we, as a society, can keep the tradition without destroying the earth and the environment we live in.

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**Figure 8.4.** Samantha Cressman; A photograph of real Christmas tree that was cut down and put in my friend’s house; Taken on Dec. 21, 2010

**Figure 8.5.** Samantha Cressman; A photograph of an alternative Christmas tree made out of books in Webster’s Cafe; Taken on Dec. 7, 2014.


8.4 Summary

In this chapter, our discussion focused on the moral worth of plants. In particular, our discussion focused on whether we have any special ethical responsibility toward plants beyond those indirect duties stemming from the value that plants have for us humans. In chapter 9, our focus shifts away from living things like plants and animals to natural, nonliving things like rivers, species, and land.
Chapter 9

Non-Living Things

Let’s suppose that arguments purporting to show that all and only living things are intrinsically valuable and thus objects of direct moral concern are seriously problematic. That is, let’s suppose that arguments purporting to show that what makes something intrinsically valuable is that it is life are critically flawed. If we accept this assumption, it is not necessarily the case that living things lack intrinsic value or fail to be objects of direct moral concern. Instead, it may simply be the case that being a life form does not make something morally important.

Figure 9.1. What non-human beings should be included in the scope of our moral considerations?

In this chapter, we investigate arguments that extend the scope of moral concern beyond that of animal life (see chapter 6 and chapter 7) and life in general (see chapter 8) to a variety of different natural (not necessarily living) things.

9.1 Rivers

Consider a set of things that we will call the “Set of Natural, Concrete, Yet Non-Living Objects” (SNCNO).
9.1 Rivers

**Definition – Set of Natural, Concrete, Non-Living Objects**

A set consisting of (i) concrete particulars (as opposed to abstract things or general things) that are (ii) natural, (iii) non-living, and (iv) are not primarily composed of living things.

Such a set would include as its members: rivers, mountains, canyons, deserts, canyons, planets, stars, ephemeral streams, valleys, lakes, and oceans. It would not include: canals and reservoirs (as these are man-made), forests or a grassy knoll (as these are composed primarily of living things).

Do we have a direct duty to members of the Set of Natural, Concrete, Non-Living Objects? Are such things intrinsically valuable?

Before answering this question, let’s be clear about what the focus of the debate is. Certainly, rivers can be polluted or destroyed and this can be considered morally wrong from the standpoint that the river may provide important resources for things that we grant moral consideration, e.g. humans. But what we want to know is if our actions toward non-living natural objects can be “bad” in a way that we are doing something morally wrong. That is, bad in a way that it ought not to happen, that we can be judged as having done something wrong for having done it, and anyone who can stop contributing to it happening should make an effort to do so and anyone who is contributing needs to stop now or provide a reason for why they are doing this.

While members in SNCNO don’t feel pain, such things might be in a better or worse condition. Rivers can be polluted, sand dunes can erode, planets can be destroyed. Since these objects can be put into a better or worse condition, it might be argued that we have a direct moral obligation to treat such objects with respect.

P1 Members of SNCNO can be put into a better or worse condition.

P2 Anything that can be put into a better or worse condition is intrinsically valuable (requires of us certain direct duties).

C Therefore, members of SNCNO are intrinsically valuable.

**Argument 9.1.** Simple Argument for the Intrinsic Value of Non-Living Things

**Objection 1.** Argument 9.1 is parasitic upon the earlier argument that all living things are intrinsically valuable as they have interests. If living things are not morally considerable because they cannot be said to have interests, then it makes even less sense to say that members of SNCNO have interests. Canyons cannot be said to want (even in the metaphorical sense) to be dry or wet. Deserts don’t have a preference to be really hot and lack inhabitants or fill with sprawling buildings.

Belshaw (2001, pp.149-151) argues that it can be uncontroversially said to be “bad for a thing” to be destroyed even though it is not bad that the thing was destroyed. In saying that it is “bad for a thing to be destroyed” he wants to latch onto the intuition that something’s going out of existence is not good for that thing. In saying that the thing being destroyed is not necessarily a bad thing, he wants to latch onto the intuitions that (i) the destruction of certain things is often good all things considered and (ii) individuals who are culpable in the destruction of a thing should not always be judged as having done something wrong.
The destruction of $B$ by some event $x$ is bad for $B$.

While $B$’s being destroyed in $x$ is a bad for $B$, $x$ may not be bad all things considered.

We should only say someone has done something wrong if they have done something bad all things considered.

Therefore, if $A$ is partially responsible for $x$, $A$ has not necessarily done something wrong.

**Argument 9.2. Belshaw’s Argument from the Non-Wrongness of Destruction**

What could possibly justified P2? Belshaw points to several examples of how $x$ can be bad for $B$ in that it leads to $B$’s destruction, but $x$ can result in a lot of good all things considered.

**Example 3 – Goodbye Nike Flats. I’ll Miss You!**

Here is an example that illustrates how we might say something is “bad for a certain thing” even though it isn’t “bad on the whole” (it makes use of a non-natural object, but you can think of a natural object in its place). I used to run races in a pair of Nike racing flats. One pair likely had a thousand miles on it; the tread is falling off, the swoosh one one of the shoes is missing, and it not usable on certain surfaces. Because of this, I decided to recycle these shoes. According to Belshaw, while recycling is “bad for the shoes”, my decision to recycle them cannot be said to be bad.

So, Belshaw asserts that we can maintain the claim that “the destruction of a thing is bad for that thing” even though it might not be bad that the thing was destroyed. From this claim, he asserts two different consequences.

1. he contends that we should say that an individual has necessarily done something bad or wrong if they destroyed an object. Belshaw (2001, pp.151-152) writes that “The death of her guinea pig distresses my daughter, but he was old, and in pain. Death was for the best. […] It isn’t at all wrong to put an animal out of its misery.’

2. even if we destroy something and the destruction of that thing yields no negative consequences, Belshaw contends that destroying something simply to destroy it is inherently bad. It isn’t clear why he thinks this but presumably it is because since destroying something simply to destroy something is bad for the thing being destroyed, then there is no overriding good that might justify the badness involved in the thing’s destruction. “[T]here are,” Belshaw (2001, p.152) writes, “good reasons for thinking that wanton acts of destruction – microwaving the cat, trampling bluebells, smashing icicles, slashing paintings – are wrong in all cases.” In other words, because it is bad for that thing to be destroyed, and when there is no overriding reason that would justify the destruction, we can say that someone has done something morally wrong in destroying that thing.

**Question:** Come up with your own example that illustrates Belshaw’s point of how destroying something might be bad for that thing, but such destruction is not bad all things considered.
The Last Animal Scenario: Imagine that you wander down into a bunker and a deadly pathogen kills every human and the majority of morally significant animals. You are the last animal alive and will travel the earth for 50 years. There is no way for the world to repopulate through evolution and no aliens exist will arrive and make earth their home. In addition, since you will only live another twenty-five years, conserving natural resources is not a relevant concern (no matter how you might try to use any particular resource, you will never exhaust it all before your death).

The question that the last animal argument presents then is this: can you be said to have done something morally wrong were you to go around destroying various natural (but non-living) things? For example, suppose you run into a nuclear reactor, break all of the safety systems, and flee the area before it melts down, thereby irradiating rivers and exploding a nearby mountain. Have you done something wrong in destroying all of these natural objects?

Many people hold the intuition that you have done something morally wrong in destroying natural objects on such a scale. Since the scenario guards against the intuition that it is wrong because you have either directly or indirectly (by destroying much needed resources) hurt another human being or animal, the wrongness cannot be explained in this way. It might then be said that it is wrong to destroy natural objects in this way because living things are intrinsically valuable (in some way), deserving of respect, and no respect is shown to natural objects by acts of senseless destruction.

Objection 2. Smashing Icicles. It is unclear why smashing icicles or certain other forms of wanton destruction would be wrong independent of the indirect harms it might cause the agent doing the destruction. That is, Belshaw contends that we need an overriding reason for certain acts of destruction but he is vague about what reasons might qualify as “overriding”. For example, suppose I were to throw snowballs at hanging icicles for fun. Does the enjoyment I derive from playing the game of “smash the icicles” sufficient for overriding the badness that happens to the icicles? I would think so given how many children play this game, how many parents might encourage them to play this game, and how perhaps only those with some other interests at stake might object.

Further Thoughts: Non-Living Things and Unnecessary Destruction

The consideration of living things was discussed extensively in unit 2, but the consideration of non-living things is necessary as well. Very few, if any, would claim that the sanctity of non-living things would compare to that of living things, but non-living things may still be of consideration. Belshaw claims that the destruction of living things is bad. It is not necessarily bad to destroy that thing, but it is bad for that thing, even if a non-living thing does not necessarily have interests. If I burn dried up leaves in my backyard that would be a bad thing for the leaves. Having a careless attitude towards non-living things could penetrate into one’s regard of other things of considerably more value like living things. He then goes on to say that an individual’s destruction of that thing should be considered bad or wrong. Even if there are not any perceivable negative consequences, the destruction of that thing is still inherently bad. One should not go around carelessly destroying things with no real reason. If it is a bad thing for that thing if it is destroyed, and one destroys it unnecessarily, then destroying that thing could be considered morally wrong.

One argument against this claim is that there is no clear definition of what would be considered a good enough reason to destroy something. For example, when I am walking along the sidewalks in fall, I go out of my way to crush acorns on the ground or to crunch leaves (see Figure 9.2). This is purely for my satisfaction that I do this. It could be considered bad for the acorns and the leaves when I crunch them, but is my own pleasure a good enough reason to destroy them? Because it is generally agreed

Figure 9.2. Crunching dried leaves and acorns on the sidewalk could be considered bad.
that humans are of much more consideration than non-living things, it is hard to weigh what human reason could be credible enough to allow the destruction. Human pleasure may outweigh the interest of non-living things. Although, one could argue that the destruction of anything should not be allowed when the reason is merely the pleasure of something else, even if that something else is of higher consideration.

It would also be harder to go out of our way to try not to destroy certain things. If the destruction of things is considered morally unjust, then one should go out of their way to not destroy non-living things. This would mean going out of your way to not step on the leaves on the ground. It would be morally wrong if you accidentally ran through a cobweb, or if you accidentally mowed over an anthill when mowing the grass (Take into consideration that there are no ants in the mound, nor is there a spider living on the web, so these are just standing structures not serving a purpose for a living thing.). These actions are harder to avoid and arguably not necessary to avoid. Although, one could say that looking out for anthills when mowing the grass is not hard, nor is it too much to ask to go around the leaves, especially if you already go out of your way to step on them. — Alison Kelly

9.2 Species

Thus far, our discussion has considered of the limits of the scope of moral consideration has proceeded by considering criteria that would include increasingly more individual beings. In other words, our discussion has proceeded from a consideration of humans to animals to living things to natural objects and ultimately to non-living (artificial) things. This discussion focuses on different particular things and has considered arguments for and against their inclusion.

Rather than broadening the scope of moral consideration in this way, perhaps our real commitments to other beings lie not to individual animals, plants, or life forms, but to the species of animals. That is, rather than examining various particular things and considering whether they are deserving of respect, perhaps more traction can be gained in a consideration of what obligations we have to different groups or classes of things.

9.2.1 Extinction

Let’s consider our intuitions about two different cases that involving the killing of a panda (although, keep in mind that we ought to consider these cases with an eye to substituting the panda with other types of beings). In both cases, let’s suppose that individuals have total knowledge of the thing in question (e.g. we know everything there is to know about a panda and so it won’t yield any secret discoveries that might benefit human beings).

Case 1: Killing a Panda. Consider various circumstances where you might be called to kill a panda. We might consider a range of scenarios where we say that killing the panda is justified (e.g. for food in dire circumstances), those where it would be morally wrong to do so (e.g. for fun), and some you might regard as possibly justified and possibly unjustified.

Question: Consider a scenario where killing a panda (or some other object) might be borderline. That is, a case where you might see good reasons for saying that it would be justifiable to kill the panda but equally good reasons for saying that it would not be justifiable to kill the panda.
Case 2: Killing the Last Panda! Now consider a case where your killing of the panda isn’t a killing of just any old panda, but is a killing of the very last panda. Your slaughter of this beast drives its species to extinction. While the cases of unjustified killing from Case 1 remain unjustified, the wrongness of killing the last panda in other two scenarios might shift. That is, you might contend that while it is justifiable to kill a panda in order to survive, it is not justifiable to kill the last panda in order to survive. But even if you hold strong in the survival scenario, it is perhaps the case that where situations you once regarded as borderline are no longer borderline when it comes to killing the last panda.

What accounts for a potential shift in intuitions about the increased wrongness of panda-killing when the panda in question was the last panda? One answer to this question is that a species is intrinsically valuable, worthy or respect, and thus commands of us certain direct duties. That is, individuals have ethical obligations over and above those to individual beings but to the kinds or types that those beings belong.

Objection 1. Species Come and Go! One response to this worry is that species come and go and so there is nothing inherently bad about the death of an entire species.

Response 1. Cosmic Force and Human Control. The objection does (i) not explain why our intuitions about killing the last panda is misplace (ii) nor are the cases analogous for it is one thing to shrug our shoulders at the death and destruction of whole species by cosmic forces acting involuntarily, but it is another thing to shrug our shoulders at the death of a whole species by human volition.

Concerning this latter point, there is a difference between a non-absentminded friend who trips and falls into us, knocking us to the ground and a friend who pushes us to the ground.

The point here appears to be, at least intuitively, we have some direct duty to certain animals species. In particular, we have an obligation not to do things that encourage their extinction. But,

9.2.2 Species: What Are We Worried About?

When individuals cite a concern about species extinction, one question we might have is “what precisely is there worry about?” Thus, at an initial stage in the discussion of respect for species or including something abstract like a species in our moral community is “what do we mean by ‘species’?”

<table>
<thead>
<tr>
<th>Definition – Conventionalist</th>
</tr>
</thead>
<tbody>
<tr>
<td>What makes $x, y, z$ members of a species $S$ rather than species $T$ is determined entirely by convention.</td>
</tr>
</tbody>
</table>

On the conventionalist interpretation of species, the fact that $x, y, z$ belongs to species $S$ is instituted and the result of codification and practice rather than some discovery about the world.

What makes beings like $x, y, z$ belong to one species rather than another is purely a matter of convention. Thus, we group all panda-looking things into the class of panda-species just because we have thought it beneficial for doing so. But, we could have done with another convention, e.g. we could have grouped
all panda-looking things and all gorilla-looking things into a species we call
gorilla-panda species. In other words, what makes certain beings belong to one
species rather than another is a matter of human decision. Individuals could be
arrange in other, perhaps less optimal ways, if we so desired.

<table>
<thead>
<tr>
<th>Definition – Realist</th>
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</table>
| What makes \( x, y, z \) members of a species \( S \) rather than species \( T \) is
determined by some property belonging to \( S \) rather than \( T \) that all things
\( x, y, z \) share but all things in \( T \) lack. |

On the realist interpretation of species, the fact that \( x, y, z \) belongs to species
\( S \) is a discovery about the world. That is, we cannot properly group beings
into different species in any way we so desire. Instead, the things by their very
nature belong to a species.

Belshaw (2001, p.156-7) argues that the conventionalist and realist definitions
are too extreme. Against the conventionalist he argues that species, as a matter
of fact, are not radically different from each other. That is, there isn’t a species
consisting of a human being, a tiger, and a beetle. As he puts it, there are
pre-theoretical facts that determine that some beings get grouped together in
one species rather than another.

Belshaw argument against the realist position is that there are a number of
borderline cases that are difficult to answer and so might best be seen as a
matter of convention.

To resolve this issue, he opts for what we will call a “moderate realist” interpre-
tation of species.

<table>
<thead>
<tr>
<th>Definition – Moderate Realist</th>
</tr>
</thead>
</table>
| What makes \( x, y, z \) members of a species \( S \) rather than species \( T \) is deter-
mined partially by facts concerning \( x, y, z \) and partially by conventions
that we ourselves set. |

9.2.3 The Facts about Species

Let’s assume that this moderate realist interpretation of species is the correct
one. Problems still remain concerning our attempt to identify a specific set of
objects as a species. One problem is that it is unclear what facts concerning
\( x, y, z \) contribute to their being classified as species \( S \) rather than \( T \). Consider
the following three accounts:

<table>
<thead>
<tr>
<th>Definition – Essentialism</th>
</tr>
</thead>
</table>
| What makes \( x, y, z \) members of species \( A \) are a set of shared phenotypic
(external) or genetic (internal) properties. |

Objection 2. The Historical Objection. Suppose two beings \( x \) and \( y \). \( x \)
and \( y \) share similar genetic and superficial characteristics but are from different
planets and evolved separately from each other. Intuitively, since genetic-
historical lineage is just as important for being a species as possessing a similar
genome or phenome, \( x \) and \( y \) are not members of the same species.

Objection 3. The Mutant Objection. Suppose you \( x \) a member of species
\( B \) have a child \( y \). This child has a very rare genetic mutation making \( y \) very
different looking than members of $B$. Intuitively, we would say that $y$ is still a member of $B$ and so essentialism must be wrong.

**Response 2. History Not Ethically Important.** The essentialist might respond bluntly to the Objection 2 by claiming that they don’t share intuitions about differentiating species when they have different lineages provided they have the same underlying genetic structure and appearance. If something looks like a duck, quacks like a duck, and genetically appears to be a duck, then it is a duck. Whether that duck evolved out of the primordial ooze on earth or some other planet is interesting but inconsequential to classifying it as one species or another.

With this said, such a view would be committed to the view that if there were two ducks with different lineages (alien-duck and earth-duck), then our intuitions about the wrongness of extinction don’t fire if one of the two groups of ducks all perish.

Analogously, suppose all sunflowers that originated from Indiana were to die. This is sad and certainly a curiosity, but nothing about there being from Indiana matters. All that matters is that some sunflowers exist with the same appearance and underlying structure.

**Response 3. History Not Ethically Important.** The essentialist might respond bluntly to Objection 3 by claiming that a species permits some permissible variation to its underlying genome and superficial appearance. We don’t classify people with minor genetic mutations or different color eyes as belonging to a new species. However, were an individual to have a radically different genome and appear strikingly different, then it isn’t counter-intuitive to say that the being is a new species and this would accord with the fact that species evolve.

<table>
<thead>
<tr>
<th>Definition – Genetic-Historical Lineage</th>
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</thead>
<tbody>
<tr>
<td>What makes $x, y, z$ members of species $A$ rather than $B$ is the fact that $x, y, z$ have a shared lineage (they descend from a common ancestor).</td>
</tr>
</tbody>
</table>

**Objection 4. One Ancestor, One Species** If having a shared ancestor is the criterion for being a member of a species, then assuming we all evolved out of a primordial ooze, then all beings are members of the same species. Thus, classifications of different species of the genus *Homo* are spurious.

<table>
<thead>
<tr>
<th>Definition – Interbreeding</th>
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<tbody>
<tr>
<td>What makes $x, y, z$ members of species $A$ rather than $B$ is the fact that $x, y, z$ can produce fertile offspring by breeding with each other, but cannot do the same with members of $B$.</td>
</tr>
</tbody>
</table>

**Objection 5. Genetic Engineering** The production of offspring is a messy affair. Parents unknowingly pass less than desirable genetic traits to their child. So, it isn’t inconceivable that, in the future, children are genetically engineered. But suppose now that after several decades of genetic engineering, a large sector of the genetically-engineered population is sterile. Intuitively, we wouldn’t say that since they are sterile, they are no longer members of the human species.

---

1What I am thinking of here are traits that the children themselves deem to be undesirable, e.g. bad eyesight, blood diseases, metabolic disorders. What I am not saying is that there is any undesirable traits objectively considered.
Belshaw (2001, pp.160-1) ultimately sides with the essentialist position. He argues that while we are unlikely to be able to pick out the key characteristics that makes x, y, z fit into species A rather than B, the essentialist position (i) is practically better and (ii) consumes the other two accounts. With respect to (i), he replies that even though alien tigers may have different lineages than earthly tigers provided they look and act like tigers, there is no significant reasons for not saying they belong to the same species as earthly tigers. With respect to (ii) he argues that a having a shared lineage or having the capacity to interbreed are two properties and so can be used as the defining features in the essentialist account.

In siding with the essentialist view, Belshaw contends that he can give a more precise statement of what we are so concerned about when we worry about the extinction of a species. He contends that when individuals that express a concern about preventing certain species from going extinct are concerned with preventing a group of individuals with a set of shared characteristics from being entirely lost (Belshaw, 2001, p.161).

9.2.4 Instrumental and Intrinsic Value of Species

The question under discussion has been whether, over and above, our ethical obligations to concrete beings, we have a duty to the species to which a thing belongs. And, given that human beings contribute to the extinction of species, what practical moral action is required of us.

Assuming that we are able to offer a clear articulation of what exactly a species is and how it might be benefited, one final question is why ought we to care about preventing certain species from going extinct?

In what follows, we consider two different responses to this question. First, we consider that the view that the only reason we ought to prevent the extinction of a species is because that species might be instrumentally valuable to human beings. Second, we consider the position that in addition to the instrumental value of a species, we ought to prevent the extinction of a species but a species is valuable in its own right (i.e., intrinsically valuable).

We might contend that all that is valuable about a species is how that species benefits human beings. Arguments of this sort would (i) point toward the obvious benefits provided by different species of things, e.g. food, environmental stability, medicine, and (ii) be critical of any claim that a species has intrinsic value. We might, however, be hesitant about too quickly accepting this instrumental value approach since it invites a consequence that might give us pause: if what makes a species valuable is how that species benefits us (or harmful to us), then if a
species is not beneficial to human beings, it is acceptable to let that species go extinct (or kill off that species).

If we resist the claim that it is acceptable to allow a non-useful species go extinct or we think that there is a sense in which a species is valuable above the benefit it provides to human beings, then we ought to explore the claim that a species has intrinsic value.

**Definition – Intrinsic Value of Species Position**

A species \( S \) is morally valuable not merely because \( S \)'s continued existence provides some benefit to human beings but also because \( S \) is intrinsically valuable. If \( S \) is intrinsically valuable, then we have a duty (direct) to preserve the continued existence of \( S \).

In order to determine whether or not species have intrinsic value, it is helpful to consider a case involving the extinction of a species that minimizes underlying concerns about that species’s instrumental value. In other words, our test case is this: if we think it would be wrong to let a species die out even if that species lacks any instrumental value, then what might explain why it is wrong is the loss of that thing’s intrinsic value.

**Case 1: A Useless Species Going Extinct**

Let’s imagine an amazingly stupid animal that lives on a small island. Let’s call it the “Dumb Dumb Mole” (Figure 9.4). The Dumb Dumb Mole is a relatively harmless mole. It gets its name from the fact that it behaves in a rather dumb way. This is due to the fact that the mole lacks the capacity to feel pain and so engages in a number of careless and deadly behaviors. The Dumb Dumb Mole feeds on mostly random objects (that is, it doesn’t feed on any specific bug that were the bird to die, these bugs would become pests and upset the order of nature). Suppose now that the Dumb Dumb Mole has, as of late, been falling off a large cliff on the island. Its numbers are now threateningly low and require some intervention on our part to prevent their extinction. **Ought we to prevent the Dumb Dumb Mole from going extinct?**

Let’s consider two different arguments for saying that the extinction of the Dumb Dumb Mole ought to be prevented (see Argument 9.3 and Argument 9.4). The first argument (Argument 9.3) asserts that “yes” we ought to prevent the Dumb Dumb Mole from going extinct and argues this point by claiming that failure to do so would result in the loss of something of value, namely a being created by God.

\[
\begin{align*}
\text{P1} & : \text{The universe and all of its creatures are made by God.} \\
\text{P2} & : \text{Anything that is made by God is intrinsically valuable.} \\
\text{IC} & : \text{Therefore, any extinction results in the loss of intrinsic value.} \\
\text{P3} & : \text{We have, insofar as it is reasonable, an obligation to prevent the loss of intrinsic value in the world.} \\
\text{C} & : \text{Therefore, we have, insofar as it is reasonable, an obligation to prevent extinction.}
\end{align*}
\]

**Argument 9.3.** Argument for Religion to Prevent Extinction

**Objection 6. Not Religious.** The scope of Argument 9.3 is limited as it only could convince someone who believes in God.

**Objection 7. God’s Evil Creatures** P2 of Argument 9.3 asserts that what anything that God makes is intrinsically valuable. God has also made a variety

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**Figure 9.4.** The Dumb Dumb Mole

**Figure 9.5.** God Shinning A Light on One of His Creatures
of things that we might wish to eliminate, and, religiously speaking seem to be instruments of destruction (e.g. locusts).

A second argument also asserts “yes” we ought to prevent the Dumb Dumb Mole from going extinct. When pressed for why, the response is that because failure to do so would result in a decrease of something valuable, namely the biodiversity of the world.

\[ \begin{align*}
P1 & : \text{Biodiversity is intrinsically valuable.} \\
P2 & : \text{Any extinction results in a loss of biodiversity.} \\
IC & : \text{Therefore, any extinction results in the loss of intrinsic value.} \\
P3 & : \text{We have, insofar as it is reasonable, an obligation to prevent the loss of intrinsic value in the world.} \\
C & : \text{Therefore, we have, insofar as it is reasonable, an obligation to prevent extinction.}
\end{align*} \]

**Argument 9.4.** Argument for Direct Duty to Prevent Extinction from Biodiversity

**Objection 8. Biodiversity is valuable for instrumental, not intrinsic, reasons.** P1 of Argument 9.4 is controversial and unargued for. Biodiversity might be considered important for a a variety of reasons, but most (if not all) of these reasons highlight its importance for instrumental reasons. For example, we desire a variety of different types of bananas not because a plurality of different kinds of bananas is intrinsically good, but because we recognize a lack of genetic diversity among bananas is risky to humans and animals that depend upon it as a sustainable food source, e.g. because different varieties are resistant to different pests and diseases and different varieties resist different types of stresses (drought, cold or hot weather).

**Further Thoughts: Biodiversity and Intrinsic Value**

The position that holds that species has intrinsic value insists that a species (plants or animals) is valuable not because it is beneficial to the human race but because it is valuable in its own right. A species is thought to be valuable in its own right for multiple reasons. First, a species may be valuable in its own right for its biodiversity. Second, it might be considered to have intrinsic value for some quasi-religious reason. The final part to this position is that because the species is intrinsically valuable, humans have a direct duty to protect the species from extinction and to preserve their survival as a species.

To illustrate the different components of this position, Figure 9.6 displays several fish found in the pond behind the Hammond building located on campus. People who agree with the intrinsic value of species position will believe that these fish hold intrinsic value and are valuable in their own right. They will contend that these fish are intrinsically valuable for their biodiversity and may feel some quasi-religious experience when interacting with these fish such as finding their place in the world. In addition, they will also contend that while these fish may benefit the human race, the value of the fish is not completely exhausted by how it benefits human beings. Therefore, because these fish hold intrinsic value, we have a direct duty to protect these fish from extinction.

One criticism of the intrinsic value of species position is that biodiversity can be seen as something that is beneficial to human beings. This would conflict the idea that biodiversity would not be seen as intrinsically valuable but rather contain instrumental value. Biodiversity may be seen as instrumentally valuable because if a certain species were to become extinct, it may upset the balance of the food chain leading to multiple species going extinct and eventually negatively impacting the human race. Therefore the biodiversity and survival of that species holds instrumental value to the human race and we will preserve that species because their survival is beneficial to us.

However, while biodiversity is instrumentally valuable, this does not disqualify it from...
being intrinsically valuable as well. For example, teachers always encourage their students to be different from one another. They tell their students to try new things, participate in activities that are enjoyable to them, and pursue careers that they wish to obtain. Teachers also encourage their students to be themselves (i.e., to develop a personality that accords with who they really are or want to be). The teacher encourages the students to be different not because she will receive some sort of benefit in return, but because such diversity has some underlying value. For some reason, being different is valued by human beings for its own sake and not because it will necessarily give the human race some sort of net benefit. On a broader standpoint, society in general encourages people to be different or to stand out.

Conversely, we can relate this back the intrinsic value of species position claiming that biodiversity is considered to have intrinsic value. Since a species creates more biodiversity, the species holds intrinsic value. And because the species is intrinsically valuable, according the last part of the intrinsic value of species position, we need to preserve the existence of that species. – Seth Hoy

### 9.2.5 Bioconservatism about Species Creation and Extinction

If we assume that species extinction is bad, is species creation good? That is, is the creation of new species through genetic engineering a good thing? And, putting such technological means aside, is the natural emergence of new species (or revival of a once extinct species) a good thing?

According to bioconservatists (bio-cons) even though species extinction might not be bad, species creation is certainly not something good.

#### Definition – Bioconservatism

The view that nature is (mostly) how it ought to be, that any deliberate change to natural objects requires significant justification, and that certain changes that are human-causes ought to be corrected.

In contrast to the biocon position is what I will call the “bio-enabler”

#### Definition – Bio-enabilism

The view that that certain deliberate changes to natural objects (e.g. species) need not require significant justification but can proceed according to the best guess at the moment.

The central difference between the two positions concerns the amount of justification required for allowing individuals or certain scientific programs to tinkering with nature. Biocons contend that the justification for making any deliberate modification to the underlying structure of nature ought to be significant, i.e. there must be an overwhelming need for the action or we must be close to certain about the consequences of our action. In contrast, the bio-enabler contends that this level of justification is too great. We can, instead, make deliberate modifications to nature based upon a careful and reasonable study of the situation.

Given that bioconservatives tend to think that species creation is morally wrong, a bioconservative might argue against the wrongness of species creation in a way expressed by Argument 9.5.

We might evaluate Argument 9.5 by considering what reasons there are for and against P2. One way to frame the debate is to consider reasons for and against...
If species extinction is bad because species are intrinsically valuable (and extinction results in the loss of something intrinsically valuable), then the creation of new species is good as it introduces new species.

The creation of a new species is not morally good (it is wrong) and should be avoided.

Therefore, species extinction is not bad because species are intrinsically valuable.

**Argument 9.5.** Biconservative Argument Against the Intrinsic Goodness of Species Extinction.

the bioenabler position by considering whether what dangers (or benefits) to humans there are in creating a new species and whether the act of species creation itself is intrinsically wrong or good.

**Figure 9.7.** Reasons for and against Bienablism

**Further Thoughts: Bees and Bioconservatism**

**Bioconservatism,** specifically regarding species creation and extinction is the view that nature is primarily how it should be in its natural state. This view also contends that any deliberate change to natural objects requires significant justification and that certain human caused alterations should be corrected. There must also be an overwhelming need for the action and/or a careful consideration of all possible consequences. This view stands in contrast with **Bioenabilism** which suggests that no significant justification is needed when deliberate changes to natural objects are made. Bioconservatives would agree that the creation of species is instrumentally dangerous as well as intrinsically wrong while Bioenablers believe that the creation of new species is instrumentally beneficial and is intrinsically good. These viewpoints are very relevant in today’s world through industries such as agriculture and forestry which have had confronting views on practices such as genetically modified organisms.

Bees serve a very important function for society that generally goes overlooked. They serve to pollinate one third of North America’s crops including fruits, vegetables, nuts, and many more plant based foods. However, as of late a large proportion of bees have been dying mysteriously. One theory contends that this is a result of genetically modified seeds that serve to “improve” plants for the agricultural industry and the individuals within the industry that increase profits from this engineering. This engineering, specifically the use of Neonicotinoids, effectively sterilizes the pollen of these genetically modified plants which doesn’t allow for the bees to harvest any nutrients from it, effectively starving them to death (see **Figure 9.8**).

1. Modifying species hurts natural objects.
2. Hurting natural objects is instrumentally and intrinsically wrong.
3. Modifying species is morally wrong on an instrumental level as well as an intrinsic level.

The central problems that lie with bioenabilism and the modification of organisms are as follows: (i) it is used primarily for profit and furthers the greed driven destruction of...
Activity: Split into four groups. Each group will be assigned either the bio-con or bio-enabler position. In your group, you will be asked to come up with several reasons for your position and consider several objections to the position you are arguing against. Use examples to illustrate your position.

Question: If “land” is to be understood as a space with stuff involved in different dependency relationships, what are some examples of these dependency relationships? That is, how do things on a land depend upon each other?
make it more unstable)?

### 9.3.1 Integrity, Stability, and Beauty

Let’s define a “Land Ethic” as follows:

**Definition – Land Ethic**

The ethical position that an action is morally good to the degree that it preserves the integrity, stability, and beauty of the biotic community (the land). Actions to the contrary are morally wrong.

Let’s let “integrity” refer to the material stuff of the land. Thus, a land ethic requires that we not introduce new species or remove certain components of the land. Let’s let “stability” refer to the continuation of the natural order of the land itself. Thus, a land ethic requires that we not destabilize the environment by damaging some key dependency relation (e.g. destroying the soil or hunting a predator to extinction. Let’s let “beauty” refer to a property of things that is capable of invoking a deserved awe or reference in certain beings.

**Objection 1. Interfering with Nature** Volcanoes are, to some, beautiful and part of the land. But volcanic eruptions threaten the integrity, stability, and beauty of all the land around them. Assuming we could stop an eruption, “land ethic” seems to imply we should. More radically, a land might be made more stable by the addition of a species. Some animals are not as beautiful as they could be (e.g. we might genetically alter a pig to have multi-color eyes and rather than high pitched squeals it emits a wonderous sound).

In short, a “land ethic” is (i) consistent with acts that some might construe as improper acts toward nature and (ii) has some internal problems to sort out about whether integrity (leaving pigs alone) or beauty (modifying pigs to be more beautiful) or stability (modifying pigs so they eat a high number of parasites) ought to take precedence.

### 9.3.2 Members of the Land

Why care about the well-being of land? Why think we have any sort of direct obligation to land per se?

One way to answer this question is to show how a concern for land is in our own self-interest and a lack of concern for land is self-defeating given certain conditions we are bound to given the pursuit of our self-interest.

Another way, and this is the way we will consider here, is not to look for a rational justification but instead contend that the answer is situated not in our heads but in our hearts. That is, let’s consider that the claim that we ought to care about land is because we have a natural (instinctive), moral response to preserving the integrity, stability, and beauty of land. This moral instinct might emerge in a variety of different ways. For example, it might emerge as the feeling of “disgust” at the site of litter or “sadness” or “sympathy” when we see an animal poorly treated.

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**Question:** What types of normal or nature emotional reactions do you think people feel when they see land upset in some significant way?

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*Bekshaw finds the “Land Ethic” of Leopold rather unclear and his account often seems as though it is a plea for clarity rather than a straightforward exposition. For our purposes, I am going to institute some clarity even if it is at the expense of plausibility and/or accuracy to Leopold’s views.*
Objection 2. Why Do We Behave Badly? If we are instinctively concerned with the integrity, stability, and beauty of land, why do human beings pollute? Why do species go extinct? Why are people comfortable with turning natural landscapes to dust? Why is deforestation a problem?

Response 1. Detachment One response to Objection 2 is that many people don’t have emotional responses to environmental problems because they are experientially removed from these problems. If we were to see animals suffering in factory farms, we would have a strong and persuasive reason to stop eating meat. If we were to see the suffering of individuals with cancers or genetic defects from various water pollutants, then we would boycott businesses that pollute in this way. But, since we are experientially removed, we don’t have an experientially motivating reason to care about land.

Response 2. A Cultivated Heart Another response to Objection 2 is that many people behave badly is because we our out of touch with our natural instincts. Modern education, religion, social norms and economic pressures pressure us to see the world in a certain way and these pressures cause us to develop habits that blunt the force of our natural instincts to be concerned about the environment.

9.4 Summary

In this chapter, we considered the moral status of non-living things. In particular, we covered whether things like rivers, species, and land are deserving of moral consideration. In chapter 10 our discussion turns to what, if any, moral responsibilities we have, not to individuals living here and now but to those that are yet to come. That is, what sort of ethical duties do we have to future beings, particularly human beings?
Chapter 10

Future Human Beings

10.1 Introduction

The previous chapters have aimed to offer some type of deeper insight into how to understand, cope, and perhaps even solve environmental problems. We haven’t been concerned with quick, technical fixes or with specific environmental problems. Rather, we have tried to consider, elaborate, and address certain environmental issues from a philosophical perspective, which has relied mostly on our common experience of things (although in cases on scientific findings). In this final chapter, we consider what ethical obligations we to future generations. First, we will consider the rather radical proposal that we have an obligation to ensure that future human beings don’t even exist. That is, we ought to let the human race go extinct, i.e., collectively deciding that environmentally-and-ethically speaking it would be better if we simply stopped producing more children and let the human race come to an end. Second, we will consider the less radical proposal that we have an ethical obligation to modify the way in which we consume natural resources and manage materials that might harm future generations so as to ensure that the quality of life of future generations is greater than or equal to our own.

10.2 The Case for the Non-Existence of the Human Race

Even if we have no plans to collectively depopulate the planet and even if we think that any proposal to eradicate the planet of people is heinous, we can still consider the claim that a world without people would be better than a world with people. None of this implies that we, as a collective, ought to neglect our young, shutdown hospitals, or commit suicide. To be clear about what is being proposed, let’s structure the debate by considering two different projects concerning the continuation of the human race.

**Definition – The Human Race Promotion Project**

The claim that we have an ethical obligation to promote the human race by doing things that ensure that the human race continues to survive.
In short, the promotion project contends that we have a duty to not only preserve currently existing human beings but also ensure their continued existence. The extinction project contends that we do have an obligation to care and tend to those individuals that currently exist (i.e., widespread genocide is certainly not being proposed), but that we should work toward the end of the human race by allowing our species to die out in a humane as way as possible.

10.2.1 Practical Consequences?

What are the practical consequences of considering such a radical proposal as the extinction project? What might such proponents contend about how we ought to live?

First, proponents of the extinction project will contend that there is no ethical compulsion to repopulate the planet. That is, if Mary and John are the last surviving members, then it would not be wrong for them to decide to let the human race die out.

Second, provided the extinction project is carried out in a humane way, there would be nothing wrong with States working toward incentivizing depopulation programs. That is, while it would certainly be wrong to carry out the extinction project via mass executions or punishing individuals who are promoting the continued survival of the human species, it wouldn’t be wrong for us as a collective to work toward peaceful ways to let the human race die out.

Third, and more pressing consequence, is that it seems to suggest that you as an individual should not have children. If the world would be better off without human beings, and we have an ethical obligation to make the world better off, then we can do our part by not adding more human beings to the planet.

10.2.2 Reason 1: Environmental

By why accept the extinction project at all? In what follows, we consider three reasons for accepting the extinction project.

Many regard human beings as the source of a number of environmental problems. We are responsible for the destruction of rain forests, for the extinction of many animal species, for global warming, for factory farms, for nuclear waste, and so
on. At least on the surface, it seems like the environment would be better off without people.

P1 The environment would be better if anything that caused a net increase in environmental destruction did not exist.

P2 Human beings, all things considered, cause a net increase in environmental destruction.

C It would be better for the environment if human beings did not exist.

**Argument 10.1. Argument for the Non-Existence of Human Beings**

Argument 10.1 sets the stage for a broader discussion for additional (both environmental and non-environmental) reasons why it might be beneficial to end the human race (see Belshaw (2001, pp.256-258)). That is, Argument 10.1 asserts that it would be better for the environment if human beings did not exist and that if we are focusing solely on the environment we have an ethical obligation not to bring future humans into existence. What it does not say that it would be better if human beings did not exist (all things considered). But, perhaps it might be.

**10.2.3 Reason 2: Suffering**

We might say one reason for abandoning the project of continuing to promote the human race is human life is not worth living because it involves tremendous suffering. Not only do humans cause animals to suffer, but human beings themselves suffer immensely. While many individuals live comfortable lives, others live in fear, in poverty, are struck by painful diseases for which there is no respite. The number of individuals that have died from mass-murder in the 20th century by nation states totals over 50 million. In the 20th century, nearly 70 million people have died from famine. Human life seems one wrought with misery.

Some individuals face such overwhelming suffering that they contend that they would be better off dead. In the US alone, nearly 40,000 individuals commit suicide each year and there are 8 to 25x as many suicide attempts. In addition, for individuals 15-24, suicide is the second leading cause of death and individuals in this age range are more likely to die from suicide than homicide.

But let’s put aside the idea of taking one’s life to avoid suffering and let’s put aside all of the seemingly horrible things that are happening all over the world. We might contend that even if we could medicate individuals from committing suicide, prevent all future cases of famine, and bring an end to all wars and violent conflict, a human life is still one not worth living. That is, this is to claim that no matter how a human life is lived, it is one filled with sadness and suffering.

What the above seems to suggest is that although human life involves bits of happiness (and some individuals do live happy lives), it would be better, for the environment and for humans themselves, if human beings never existed.

**Question:** P1 asserts that the environment should not have to bear anything that harms it more than helps it. Do you think this is true? Or, should we allow some free-riders?

**Question:** P2 asserts that human beings harm the environment more than they help it. Argue for this claim by considering some examples of how humans harm the environment in some irreparable ways.

**Question:** What sorts of reasons or experiences or phenomena might make human life one of essential suffering?
10.2 The Case for the Non-Existence of the Human Race

10.2.4 Reason 3: Wrongdoing

Another reason for abandoning the promotion project for the extinction project is that human beings are tremendously evil. Some individuals are cognizant of the suffering (both direct and indirect) they cause others. They reflect that everyone might be better off they didn’t exist. Or, they might reflect that they do evil and because of the evil they do, they deserve to die. Others cause the same harm and do the same evil but don’t have such reflections. They deny their actions cause harm to others (when they really do) or deny they are truly evil. In any event, we might say that one reason it might be better if human beings did not exist is that, on the whole, they produce more evil than good.

Hitler, a Genie, and World Peace.

There is an often-asked question to test the limits of the intrinsic value of human life: “if you could go back in time and kill a young Hitler, would you?” The motivation behind this question is that killing is often morally acceptable to kill an individual who will usher forth tremendous amounts of suffering.

Now suppose you are given three wishes by a genie. You are skeptical and so with your first wish, you wish for wealth, check your account and are shocked to see that you are now the wealthiest person in the world. With your second wish, you wish for the health of your friends and family (some of them are ill). They are magically recovered. With your third wish, you consider wishing that Hitler never existed, but you are worried about what consequence Hitler’s non-existence might have on your existence (i.e., maybe if Hitler never existed, you might not exist). So, you decide to wish for the eradication of all future evil in the world.

Your wishing for the future eradication of evil seems intuitively good. Evil is a bad thing and it is better for things that are, on the whole, evil to never have existed. But, were you to find out that the removal of this evil would lead to the end of the human race, you might wish to take back your wish. Why?

10.2.5 Summary: Eradication and Absence

The argument that has been put forward in this section has been for the conclusion that this world would be better off if you human beings never existed. The argument has relied on two principal reasons. First, since human beings cause tremendous environmental destruction, it would be better for the environment (and thus the world) if human beings did not exist. Second, since human life is hard, full of suffering, and humans are inclined to commit serious evils, it would be better if they did not exist, all things considered.

Ethically speaking, while it might be wrong to kill off the remaining human beings (eradication might be wrong), we ought not perpetuate the human race by creating new human beings.
10.3 The Case for the Preservation of the Human Race

In a previous section, various reasons were proposed for why it might better if the human species were allowed to die out (the extinction project). In this section, several reasons are proposed in support of the promotion project (see Figure 10.2).

**Figure 10.2.** Reasons for the Promotion Project

10.3.1 Reason 1: Species Preservation

One reason in support of continuing the human species relies on the assumption that all species are intrinsically valuable (see section 9.2). If all species are intrinsically valuable, then there is a compelling reason for why we have an ethical obligation to preserve the human race.

- **P1** Species are intrinsically valuable.
- **P2** Human beings comprise a species.
- **IC** A world with human beings is better than a world without human beings.
- **C** Therefore, there is an ethical obligation to preserve the existence of the human species.

**Argument 10.2.** Argument for Promotion: Intrinsic Value of Species

**Objection 1. Species are Instrumentally Valuable.** Arguments that species are intrinsically valuable are debatable and there are several strong arguments to suggest that species are only instrumentally valuable (see section 9.2).

**Objection 2. Human-Caused Extinction.** Argument 10.2 assumes that the preservation of human beings won’t lead to further human-caused extinctions. If all species are of equal intrinsic value, and the continued preservation of the human race will result in two or more species extinction then there is a compelling reason for not continuing the human race.

10.3.2 Reason 2: Saving a Life and Creating One

A second reason for supporting the promotion project relies on moral intuitions concerning the goodness of saving a life. If saving a life is good, then it also must be good to create a life. And, if this is the case, then individuals have a reason to create new human lives and thus perpetuate the human race.
The Case for the Preservation of the Human Race

10.3 If it is good to save a human life, then it is good to create a human life.

P1 It is good to save a human life.

P2 It is good to save a human life.

C Therefore, it is good to create a human life and so either we ought to preserve the human race or arguments that we ought to let the human race die out are misplaced.

Argument 10.3. Argument from Promotion: Saving and Creating

Let’s consider this argument in some detail. First, P1 asserts that if it is good to save a human life, then it is good to create a human life. Certainly, it is good to save a human life (P2), but why? One explanation is that it is good to save a human life because human life is intrinsically valuable. To allow a human being to die is to permit a decrease of value in the world (it is to not respect what is of value in the world), an act that would make the world less valuable.

If saving a life is good because it involves a net increase in intrinsically valuable, it should now be clear why the latter part (known as the consequent) is also true. If saving a life preserves the overall amount of value in the world, then creating life increases (or preserves the total given loss) the amount of value in the world.

Objection 3. Two Views of Intrinsic Value. It might be argued that even if human life is intrinsically valuable, this does not imply a commitment to the promotion view of the human species. In order to make this clear, let’s distinguish between two different views on intrinsic value.

<table>
<thead>
<tr>
<th>Definition – Sanctity View</th>
</tr>
</thead>
<tbody>
<tr>
<td>The view that asserts (i) all human life (independent of its content or character) is intrinsically valuable, (ii) that it is worth preserving and promoting, (iii) the premature end of a human life is a bad thing, and (iv) while other things are valuable and some lives may be worth more than others, nothing is more valuable than human life.</td>
</tr>
</tbody>
</table>

The Sanctity View seems to say that human life is valuable independent of whether or not it has any particular property or quality. Provided it is a human life, it is intrinsically valuable. In contrast, let’s call the view that human life of a certain sort is intrinsically valuable the “Quality View”.

<table>
<thead>
<tr>
<th>Definition – Quality View</th>
</tr>
</thead>
<tbody>
<tr>
<td>The view that asserts (i) all human life is intrinsically valuable, (ii) that it is worth preserving and promoting when only if it has certain qualities (e.g., happy life), (iii) the premature end of a human life is not necessarily a bad thing (e.g., comatose, extreme pain), and (iv) while other things are valuable and some lives may be worth more than others, nothing is more valuable than human life.</td>
</tr>
</tbody>
</table>

In contrast to human life is only intrinsically valuable if it has certain qualities that are regarded as valuable. And, so, insofar as circumstances are such that human life no longer has the quality that makes it valuable (e.g., it has become one of extreme suffering or it has become evil and destructive), then it no longer is the case that we have a duty to create life (since we would be creating
something lacking in value).

**Objection 4. Value Lost.** Belshaw (2001, p.259) argues that just because we have an obligation not to destroy a life (save a life) does not mean that we have a corresponding obligation to create a life. He contends that when a life ends prematurely, something of value is lost but no such loss occurs if a life isn’t created. What imposes upon us obligations to save a life are that the individual living the life wishes, hopes, aspirations that they desire to see fulfilled. Insofar as their life is prematurely ended, their desires go unfulfilled (the assumption being desires are the source of all values). In contrast, a not-yet-alive being has no hopes or aspirations and so our non-creation of them does not mean that any such hopes or dreams or projects are dashed.

10.3.3 Reason 3: Symmetry

A third reason for supporting the promotion project is related to the claim that human life is one of suffering and evil. If human life was one of essential suffering and all humans were destined to commit evil acts, then a case could be made for letting the human race die out. But, it seems that at least some human beings live happy lives and some human beings are not evil. Thus, the case for extinction is only provisional: only the suffering and evil individuals should be allowed to die out (peacefully) but we have an ethical obligation to promote happy and morally good human species.

| P1 | It is wrong to create a life that will be full of extreme suffering. |
| P2 | Symmetrically, it is good to create a life that will be full of extreme happiness (or just happiness on the whole). |
| C  | Therefore, we have an ethical obligation to preserve the human species. |

**Argument 10.4.** The Argument for the Preservation of Human Beings: Symmetry

10.3.4 Reason 4: The Prospects of Goodness

While human life might be characterized as full of suffering and evil, let’s consider two related reasons that make the continued existence of human beings a project worth pursuing.

First, it might be argued that the good that human beings do (or the happiness they bring into the world) outweighs the evil that they do (the suffering they cause).

Second, to make a weaker claim, the prospects of a seemingly immeasurable goodness awaits the human race. While a relationship might be marked by hard times, betrayal, and sleepless nights filled with worry, such sadness is only a means to something more meaningful, important, and good: true friendship or love. While athletic training might be chocked-full of countless painful hours in the gym or on the roads, such labor is worthwhile when one runs faster or lifts more. Analogously, while our treatment of the environment has been less than admirable, we grow increasingly cognizant of our actions and the development of new industrial and bio-technology holds out the prospect of ultimately helping the environment in ways it could never help itself. In short, while much of...
our lives consists of suffering, evil, and destruction to the environment, human beings are moving toward a happier, better, and more helpful state.

Why would anyone ever think that the human race—a race marked by unbelievable suffering—is one that can save itself? Why think that humans will be any better in the future? One reason is that there is some data to suggest that human beings are becoming less violent (Figure 10.3).

![Figure 10.3. US Murder Rate 1970-2011](image1)

A second reason for thinking that the human race should not be abandoned is that human beings are capable of responding to suffering in positive ways.

**Objection 5. CO2 Emissions.** While murder in the US may be decreasing, data doesn’t suggest we are acting any better toward the environment (see Figure 10.4).


**Question:** Can you think of any examples where someone you know (or yourself) was hurt in some way and you responded to it by doing something positive?
10.3.5 Reason 5: Instrumental

A final reason for contending that human beings should be preserved is that there are instrumental reasons for contending that human beings should be preserved. The first reason is that nature needs us. That is, human beings are instrumentally valuable to nature. Various relations between species or natural objects get “out of wack” and human beings can play the role of custodians by managing these interactions, e.g. preserving species.

The second reason is that even if we cause a tremendous amount of damage to nature, we also preserve it in all sorts of ways and we can be said to be actively working against all of the environmental damage we are currently causing. Thus, arguments that the environment would be better off without us are misplaced since while it is true that we cause a lot of environmentally damage, we also do a lot of good and are making strides to reduce this damage.

10.4 Duties to Future Persons

Proposals concerning the future extinction of the human race, while revelatory and instructive about our position here on earth, may seem pointless insofar as practically they are not likely to be enacted. While some individuals may think that human life is destructive to the environment, is one of suffering, and that human beings are particularly evil, there will be others who think that human beings can become more environmentally friendly and that human beings are navigating their way to a happier, more just state. Putting human extinction and promotion projects aside, we might now consider a more local question. Namely, what obligations do we have to future persons?

Let’s assume that human beings are consuming more resources than ever before (more wood, oil, water, etc.). In addition, let’s assume that a number of actions that we currently perform negatively impact the environment (e.g. storing nuclear waste, CO2 emission, littering, deforestation). Such practices put individuals at increased risk of dying or of being born with or acquiring health problems. Is there any way to justify our current consumption practices and the risks we undertake?

10.4.1 Duties to Future Persons

Many will argue that such practices cannot be justified and they argue that continuing these practices is morally wrong because it harms future people. Let’s begin with an argument (see Argument 10.5) that many of our actions toward the environment (particularly the consumption of resources and those that decrease the quality of life by degrading the quality of life) are wrong. Given the wrongness of our consumption and risk-inducing practices, we have an ethical obligation to ensure that future generations live in a world whose quality of life is better than or at least equal to the world that we live in.

First, P1 should be relatively uncontroversial. We think (all other things being equal) it is wrong to pollute the environment that might cause harm to adults, children, and newly-born babies. Second, we might accept P2 without much debate. What is controversial, however, is P3. P3 contends that it is equally wrong to decrease the quality of life for those who are going to born (e.g. a fetus) as it is for an adult. A stronger version of P3 in Argument 10.5 might
P1 All other things being equal, it is wrong to reduce the quality of life of someone who is presently alive.

P2 All other things being equal, it is wrong to reduce the quality of life of someone who is about to be born.

IC It is thus wrong to reduce the quality of life of someone who is presently alive and someone who is about to be born (immorality claim).

P3 It is equally wrong to reduce the quality of life of someone who is presently alive as it is someone who is about to be born (parity claim).

P4 Many of our actions concerning the consumption of natural resources (e.g. oil) or that involve environmental risk reduce the quality of life of individuals about to be born.

IC Therefore, many of our actions concerning the consumption of natural resources (e.g. oil) or that involve environmental risk are wrong.

C Therefore, we have certain duties to modify our current practices so as not to decrease the quality of life of future persons.

---

**Argument 10.5. Duty to Future Persons: From Harm**

be made without jeopardizing the conclusion, viz., P3 might be modified to say that it is actually *more wrong* to decrease the quality of life of a fetus than it is to an adult. To support some version of P3, it can be helpful to distinguish between different victim types (Table 10.1).

<table>
<thead>
<tr>
<th>Victim Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>first-party victims</td>
<td>operators (those with influence on the system), e.g. pilots, laborers in a steel mill, drivers, phone users, et al.</td>
</tr>
<tr>
<td>second-party victims</td>
<td>nonoperating system users (they use the system but have no influence on the system), e.g. airline passengers, individuals who work (even if they only do clerical work) at a refinery. These individuals are not completely innocent as they know the risks of using the technology.</td>
</tr>
<tr>
<td>third-party victims</td>
<td>innocent bystanders, individuals with no involvement in a system (e.g. being hit by a plane).</td>
</tr>
<tr>
<td>fourth-party victims</td>
<td>fetuses and future generations, e.g. victims of radiation, toxic chemicals</td>
</tr>
</tbody>
</table>

**Table 10.1. Four Victim Types**

Next, if P3 is true, it needs to be shown that the moral wrongness of harm to fourth-party victims is greater than or equal to other kinds of victims. What reason(s) do we have to think that this is the case?

**Reason 1: Intuitions Concerning Innocence**

Suppose that a bus is driving the speed limit when its tire explodes sending the bus onto the sidewalk. There are a number of victims: the bus driver, a passenger on the bus, a pedestrian, and the fetus of a pregnant mother (she was hit by the bus, survived but her unborn child did not).

Some might argue that the greatest loss here is the fetus because the fetus, unlike the other victims, is completely innocent and it seems more morally wrong to harm someone the more innocent they are. In other words, unlike the bus
driver who assumed certain risks in driving the bus, unlike the bus passenger who assumed a little less risk in riding the bus, and unlike the pedestrian who assumed even less risk in standing on the sidewalk, the fetus and future persons assume no risk at all.

**Reason 2: Comparative Burdens**

According to Charles Perrow, “[f]orth-party victims potentially constitute the most serious class of victims.”

According to Perrow, one reason why they are the most serious case of victim is that they can be harmed the most for the greatest duration of time. For example, insofar as environmental damage leads to increased probability of certain genetic defects, such genetic defects can be life-long and can diminish one’s entire life. Thus, comparatively speaking, the scope of harm to future persons is greater than the scope of harm to actual persons. Relatedly, genetic defects create increased burdens, e.g. lifetime care by parents or the State (thus, decreasing the quality of life hurts not only those that are directly victims but also everyone else.

**10.4.2 Justifying Consumption, Denying Duties**

The practical consequence of Argument 10.5 is that we have an obligation to modify our current practices regarding consumption and risk-introduction. And, we must do so in a way that makes the quality of life of future persons better than or equal to our own. We might consider several objections to this argument.

**Objection 1: Needing Less, Doing More**

First, one way to justify our current practices is to say that future individuals will need less and will be able to cope better with all of the risks that we hoist upon them. Future individuals will rely less on non-renewable resources and when they do require such resources, they will be able to do more with less. In addition, future humans will be able to lessen risks, e.g. safe and environmentally friendly techniques for breaking down (or cleaning) toxic waste.

**Response 1. Explosive.** This argument is fallacious as it appeals to ignorance and can be used to justify almost any practice. That is, the above argument has the following structure: see Argument 10.6.

Using the form of this argument, one could argue that pouring nuclear waste is acceptable since future generations will figure out how to solve this problem.

**Response 2. High Stakes Gambling.** The argument involves a gamble. We contend that our future consumption and risk-taking behavior is justified if it results in a better or equal quality of life for future persons.

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Argument 10.6. Argument for Future Resolution of All Environmental Problems

because we predict that future generations will discover some way to fix these problems. If we are right, then we don’t need to modify our behavior at all. If we are wrong, then future generations will suffer. Typically, when we gamble, the stakes are somewhat low and our actions are capable of being corrected. We might bet $5 on a horse to win. If we lose, we don’t suffer very much. Rarely do we engage in high-stakes games where individuals lives are on the line (e.g. Russian roulette). And, if we were forced to, we would hopefully only bet with a strong degree of assurance that no one will be hurt.

Betting on future generations to avoid a potential scarcity of resources (water, wood, fuels) or minimize risks associated with exposure to dangerous chemicals that have leaked from containment units (e.g. nuclear waste) seems more like a high-stake game and less like one where we have close to certainty about the potential outcome.

Objection 2: Harm to Non-Existent Persons

A second response to Argument 10.5 is to argue that it makes no sense to say various negative environmental actions decrease the quality of life of future persons as these people do not exist to be victimized. The rationale behind this response is that our identity (who we are) is determined by all of the characteristics. And, insofar as we degrade the environment and that leads to some individual A being born with a genetic defect, it isn’t the case that we harmed A since if we didn’t degrade the environment then A would not exist (instead, some other version of A would exist, let’s call this B or no such corresponding being would exist.)

To see this point more clearly, let’s consider Jane and John. Jane and John are in love. They want a child, but they cannot decide when they should try to make a baby. They could have a child in 2014 or 2015 or 2016. If they have a child in 2014 that child will be a different person than if they had a child in 2015, and the same goes for 2016.

Figure 10.5. Jane and John and Children A, B, C

One reason we would say that Child A would be different than B and C is that A likely has different characteristics (e.g. one of these being that A will be born at a different time, but also there will be different environmental factors impacting them given when they are born). A second reason why Child A
would be a different person than B and C is that if Jane and John choose to have a child in each year (one in 2014, one in 2015, and one in 2016), we would not say there are three different persons. Instead, we say that Jane and John have three children and each child is a different person.

But now let’s suppose three future worlds that correspond to different actions we might take toward the environment. We might significantly reduce consumption and minimize risk behaviors and thereby make the environment better. We might make adjustments to our world so that a future environment is about the same quality as our own. Finally, we might continue current consumption practices and risk-behaviors and make the future environment worse off.

Now, suppose that John and Jane could have a child in each of these different worlds and each child would be a different person. Let’s suppose that if the child is born in a world with better environmental conditions, then the child will be quite healthy. If born in a world with environmental conditions similar to our own, then the child will have average health. If the child is born into a world with worse environmental conditions, then the child will have a somewhat serious genetic defect.

![Figure 10.6. Three Future Worlds, $w_1 =$ better environment, $w_2 = w_0$, $w_3 =$ worse environment.](image)

Argument 10.5 contends that current environmental policies harm future people. Applied to Figure 10.6, this asserts that we harm Child C insofar as we create environmental conditions that lead to C having a genetic defect. But, this does not make any sense since if these negative environmental conditions did not exist, child C would not exist. Instead, child B or child A would exist.

10.5 Summary

This chapter has considered what ethical obligations we to future generations. First, we considered the rather radical proposal that we have an obligation to ensure that future human beings don’t even exist. That is, we ought to let the human race go extinct, i.e., collectively deciding that environmentally-and-ethically speaking it would be better if we simply stopped producing more children and let the human race come to an end. Second, considered the less radical proposal that we have an ethical obligation to modify the way in which we consume natural resources and manage materials that might harm future generations so as to ensure that the quality of life of future generations is greater than or equal to our own.

Question: What, if any, obligation do we have to future generations?

Question: What sort of quality of life do we owe future generations (one better than, equal to, or worse than our own)?
Appendix A

Using \LaTeX

A.1 Why Use \LaTeX?

You might want to know why I am asking you to use \LaTeX. The primary reason is that the super document for this course is written using \LaTeX and so having you submit your work using \LaTeX allows me to add your work to this super document. But, a second reason is that I think \LaTeX is a fantastic tool that you should use!

1. \LaTeX is free! That’s right. It won’t cost you a single penny to use.

2. \LaTeX is eternal. \LaTeX is not a word processor. Instead, it uses source code (written in plain text) to generate a document (typically in PDF). Because \LaTeX is written in plain text, it is not tied to any particular instantiation of a word processor.

3. \LaTeX is little. Since your document is written in plain text, it is extremely small. More space for all of those videos of your new puppy on your hard drive! But, more seriously, this is important for working in very large documents. If you are writing a 500-page thesis with documents, charts, a table of contents, references, pictures, links, and so on, word-processors will often crash. For example, when I went to put the chapters of my logic textbook (500+ pages) and dissertation (200+ pages) together (to submit to the publisher and my committee), WORD crashed several times on PCs at the university and my home office.

4. \LaTeX is cross-platform. Have you ever sent a file to someone using OpenOffice, an old version of WORD, or some other word-processing file and they were not able to open it? Since \LaTeX-ready files are written in plain text, they are cross-platform. \LaTeX is extremely portable in that you can simply compile the file in a format they can view, or in PDF, or send them the source code (the plain text) and they can compile it.

5. \LaTeX is math-friendly. \LaTeX is the standard for producing documents that involves lots of mathematics.
A.1 Why Use \LaTeX\

6. \LaTeX is user-driven. What I mean by this is that suppose a user wants to write a document that does something special, e.g. they want all of the cells of a table to be filled with a random color. A user of \LaTeX could simply write a few commands or load what are called packages, and they would be able to have their rainbow-colored tables. In addition, because \LaTeX is user-driven, there is a great deal of user-generated documentation on how to use \LaTeX. The place to go if you have any question, no matter how technical is http://tex.stackexchange.com/.

7. \LaTeX is beautiful! Documents produced in \LaTeX are of extremely high typographical quality. It does this by doing things that word processors tend not to do: (i) create ligatures between letters that go together, (ii) it uses a hyphenation algorithm to break words at the end of the line, (iii) it justifies text rather than allowing it to be ragged-right, and so on. Personally, I think that documents produced in \LaTeX are better looking and make a better first impression. But, you be the judge. Compare the following two PDFs, one produced in \LaTeX and the other produced in MSWord.
1 Introduction


Introduction


A.2 \LaTeX{} and the Writing Assignment

This appendix provides some additional information on how to complete the \LaTeX{} Assignment for this course.

A.2.1 The Writing Component

To get started with \LaTeX{}, take a look at the following links: ShareLaTeX’s Creating your first \LaTeX{} document and Paragraphs and Sections in \LaTeX{}.

Unlike MSWORD or OpenOffice, documents prepared using \LaTeX{} are written in plain text. What this means is that they you don’t see any styling or formatting. Instead, you write commands that tell \LaTeX{} how to compile (create) the document. If you are using ShareLaTeX, a number of the initial commands are automatically loaded whenever you create a document.

Let’s discuss a few of these commands and basic document preparation using \LaTeX{}. Every \LaTeX{} document consists of two main parts. There is the preamble and everything in the document itself.

The preamble consists of the documentclass, packages, and other information about the document, e.g. the title of the document, the author, the date in which it is written.

First, the command that begins almost every \LaTeX{} file is the documentclass. The documentclass is the type of document you want \LaTeX{} to create. For example, you could create an article, a book, a letter, a report, a memoir, or a presentation (using beamer). To command \LaTeX{} to prepare a specific document class (e.g. an article), write

\documentclass{article}

at the beginning of the document.

Second, once you have specified the documentclass in the preamble, you can provide additional information about your document. For example, you will want to indicate the title of your document as well as author and the date. To specify this information, write the following:

\title{Super Great Title}
\author{John Doe}
\date{August 31st, 2015}

The second major part of the preamble involves commanding \LaTeX{} to load various packages. Packages are groups of commands that allow \LaTeX{} to prepare the document in some special way. For example, when I am working on a document that contains a lot of mathematical symbols, I need to instruct \LaTeX{} to load certain groups of commands that allow it to display the type of mathematical symbols that I need. To tell \LaTeX{} to make use a particular package simply write:

\usepackage{name of package here}
Packages are where the power of \LaTeX lies. If I want to create a spiffy table, a matrix, if I want all the links in my document to appear a certain color, if I want precise control over the margins of the document, there is a package for it.

That concludes a discussion of the preamble. Next, there is the document itself. This is where you will include your flowing prose, your section titles, and all the things that you want your reader to read.

To command \LaTeX to begin a document, write:
\begin{document}
\end{document}

In the middle of these two commands is the meat of your document.
\begin{document}
[All of Your Great Ideas Go Here!]
\end{document}

For details on what you should include here, see subsection 0.5.2 and subsection 0.5.4.

As an example, let’s consider a document that consists of the following:

1. we want to instruct \LaTeX to make the title so we will write \texttt{\maketitle}
2. we want a section, so we will tell \LaTeX to make one by writing \texttt{\section{Introduction}}
3. we want some content in this section, so we will write “Blah Blah Blah”
4. and finally, for good measure, we will add a second section using \texttt{\section{Super Great Section Title}}

\documentclass{article} \% loads the article document
\title{Super Great Title}
\author{John Doe}
\date{August 31st, 2015}
\% end of preamble
\begin{document}
\maketitle
\section{First Section}
Blah Blah Blah!
\section{Super Great Second}
\end{document}

Putting all of this together gives us:
Super Great Title

John Doe

August 31st, 2015

1 First Section

Blah Blah Blah!

2 Super Great Second
A.2.2 The Media Component

This section provides a basic overview of using images in \LaTeX. Before beginning, it is worthwhile to get an overview of how to use images in \LaTeX. Check out Images in \LaTeX.

To include an image in your document, you will need to make use of the `graphicx` package. To do this, you will need to tell \LaTeX to make use of this package by writing `\usepackage{graphicx}` in the preamble of your document. The preamble is the part of your plain text file that comes before the command `\begin{document}`.

\begin{verbatim}
\documentclass{article} \% loads the article document
\usepackage{graphicx}
\title{Super Great Title}
\author{John Doe}
\date{August 31st, 2015}
% end of preamble
\begin{document}
\maketitle
\section{About Me}
My name is David. I love pigs!
\section{Super Great Section}
\end{document}
\end{verbatim}

If you recompile at this point, your image will not yet appear. To insert an image, you will need to do the following.

Upload an Image to ShareLaTeX

Insert the Image

Uploading the image is straightforward. What is not straightforward is how to tell \LaTeX to insert an image at a particular place. To do this, you will first create a figure environment. This is performed by typing the following:

\begin{verbatim}
\begin{figure}[!h]
\centering
\includegraphics{}
\caption{Caption}
\label{fig:my_label}
\end{figure}
\end{verbatim}

If you are using ShareLaTeX as you type `\begin{figure}`, the rest of the fields you need will automatically appear including the important `\includegraphics{}`. The final step is to write the name of the image in between the curly braces in the `\includegraphics{}` field. I have uploaded a file named `bubble_syllabus` and so I will type `bubble_syllabus` between the braces as follows:

\begin{verbatim}
\begin{figure}[!h]
\centering
\includegraphics{bubble_syllabus}
\caption{Caption}
\end{figure}
\end{verbatim}
If your image is too big, you will want to scale it down. This is done by specifying the scale in the \texttt{includegraphics} command with square brackets. In the following example, the image is scaled down to one-tenth of its size.

\begin{figure}[!h]
\centering
\includegraphics[scale=0.10]{bubble_syllabus}
\caption{Caption}
\label{fig:my_label}
\end{figure}

Here then is an example of the source code for a document containing an image.

\documentclass{article} % loads the article document
\usepackage{graphicx}
\title{Super Great Title}
\author{John Doe}
\date{August 31st, 2015} % end of preamble

\begin{document}
\maketitle
\section{About Me}
My name is David. I love pigs!
\begin{figure}[!h]
\centering
\includegraphics[scale=0.10]{bubble_syllabus}
\caption{Caption}
\label{fig:my_label}
\end{figure}
\section{About You}
You are a nice person.
\end{document}
1 About Me

My name is David. I love pigs!

2 About You

You are a nice person.
A.2.3 Rescaling Absolutely & Relatively

There are two ways to rescale an image. First, we can scale the image absolutely by specifying a value for \( n \) in

\[
\text{\texttt{\includegraphics[scale=n]{nameofyourfile}}}
\]

If \( \text{scale}=1 \), then your image in the document will be the size of the image itself. But, since this image is really huge, I’m going to scale it down quite a bit.

Another option is to specify the size of the image relative to some other item in document. For example, we can scale the image relative to say half the width of the text.

\[
\text{\texttt{\includegraphics[width=0.5\textwidth]{bubble_syllabus}}} \\
\text{\texttt{\begin{figure}[!ht]}} \\
\text{\texttt{\centering}} \\
\text{\texttt{\includegraphics[width=0.37\textwidth]{bubble_syllabus}}} \\
\text{\texttt{\caption{width=0.37 of textwidth}}} \\
\text{\texttt{\end{figure}}}
\]

In addition to adding an appropriately-sized image, we also want the image to have a caption. To do this, we can put the image in the figure environment and use the \texttt{\caption} command.

\[
\text{\texttt{\begin{figure}}} \\
\text{\texttt{\caption{The Greatest Caption Ever!}}} \\
\text{\texttt{\end{figure}}}
\]

But notice that the caption is centered while the image is flush left. This looks like garbage. Instead, We want the image to be centered over the caption. To do this we will write \texttt{\centering} after \texttt{\begin{figure}}:
Figure A.3. width=0.37 of textwidth

Figure A.4. The Greatest Caption Ever!

\begin{figure}
\centering
\includegraphics[width=0.27\textwidth]{bubble_syllabus}
\caption{The Greatest Caption Ever!}
\end{figure}

Figure A.5. The Greatest Caption Ever!
Super! Now we have an image with a caption, and everything is nicely aligned. But, let’s do a little fine-tuning. \LaTeX{} will put your image and caption on the page where it thinks it fits best. A lot of times, \LaTeX{} gets it right and if you use labels in the text to refer to the figures placement at a specific point isn’t too important, e.g. see Figure A.5. But sometimes you want the image somewhere else and sometimes you will want the text to wrap around the image. Let’s address each of these issues in turn.

First, the figure environment allows for specifying a placement value for where on the figure will float in relation to the rest of the source code.

\begin{figure}[placement value]
\centering
\includegraphics[width=0.27\textwidth]{bubble_syllabus}
\caption{The Greatest Caption Ever!}
\end{figure}

In the place of “placement value” use any combination of the following:

- \texttt{h} places the item here
- \texttt{t} places the item at the top of the page
- \texttt{b} places the item at the bottom of the page
- \texttt{p} places the item on its own page
- ! overrides the internal logic of \LaTeX{}

So, for example, if we wanted to place the figure approximately below this text or at the bottom of the page and ignore any logic \LaTeX{} uses to place the figure, we would use \texttt{![ht]}

\begin{figure}[!ht]
\centering
\includegraphics[width=0.27\textwidth]{bubble_syllabus}
\caption{The Greatest Caption Ever!}
\end{figure}

Finally, suppose we wanted to wrap text around an image and its caption. To do this, use the \texttt{wrapfigure} environment. To do this, we will need to add the \texttt{\usepackage{wrapfigure}} to the preamble and then replace

\begin{figure}[!ht]
\centering
\includegraphics[width=0.27\textwidth]{bubble_syllabus}
\caption{The Greatest Caption Ever!}
\end{figure}

with

\begin{wrapfigure}{R}{0.3\textwidth}
\includegraphics[width=0.27\textwidth]{bubble_syllabus}
\caption{The Greatest Caption Ever!}
\end{wrapfigure}

Note that \texttt{\{0.3\textwidth\}} specifies the width of the figure in relation to the text. Secondly, \texttt{\{R\}} specifies that the figure should be exactly to the right of the text and the text should wrap around it. However, we can substitute \texttt{\{R\}} with a number of different position specifiers:

- \texttt{r} (uppercase for exactly right)
- \texttt{l} (uppercase for exactly left)
- \texttt{i} if two-sided, inside edge, near the binding
- \texttt{o} if two-sided, outside edge–far from the binding

\footnote{For documentation on this package, see http://texdoc.net/texmf-dist/doc/latex/wrapfig/wrapfig-doc.pdf.}
So, for example, the following
\begin{wrapfigure}{R}{0.35\textwidth}
\centering
\includegraphics[width=0.37\textwidth]{bubble_syllabus}
\caption{A Bubble Outside of Southgate Apartments. David W. Agler. State College, PA. Fall 2013.}
\end{wrapfigure}
\lipsum[2] % adds dummy text
\lipsum[3]
\lipsum[4]
creates:


Appendix B

Readings

B.1 Selection from J. S. Mill’s *Utilitarianism*

[...] The creed which accepts as the foundation of morals. Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure, and the absence of pain; by unhappiness, pain, and the privation of pleasure. To give a clear view of the moral standard set up by the theory, much more requires to be said; in particular, what things it includes in the ideas of pain and pleasure; and to what extent this is left an open question. But these supplementary explanations do not affect the theory of life on which this theory of morality is grounded — namely, that pleasure, and freedom from pain, are the only things desirable as ends; and that all desirable things (which are as numerous in the utilitarian as in any other scheme) are desirable either for the pleasure inherent in themselves, or as means to the promotion of pleasure and the prevention of pain.

Now, such a theory of life excites in many minds, and among them in some of the most estimable in feeling and purpose, inveterate dislike. To suppose that life has (as they express it) no higher end than pleasure—no better and nobler object of desire and pursuit—they designate as utterly mean and grovelling; as a doctrine worthy only of swine, to whom the followers of Epicurus were, at a very early period, contemptuously likened; and modern holders of the doctrine are occasionally made the subject of equally polite comparisons by its German, French, and English assailants.

When thus attacked, the Epicureans have always answered, that it is not they, but their accusers, who represent human nature in a degrading light; since the accusation supposes human beings to be capable of no pleasures except those of which swine are capable. If this supposition were true, the charge could not be gainsaid, but would then be no longer an imputation; for if the sources of pleasure were precisely the same to human beings and to swine, the rule of life which is good enough for the one would be good enough for the other. The comparison of the Epicurean life to that of beasts is felt as degrading, precisely because
a beast’s pleasures do not satisfy a human being’s conceptions of happiness. Human beings have faculties more elevated than the animal appetites, and when once made conscious of them, do not regard anything as happiness which does not include their gratification. I do not, indeed, consider the Epicureans to have been by any means faultless in drawing out their scheme of consequences from the utilitarian principle. To do this in any sufficient manner, many Stoic, as well as Christian elements require to be included. But there is no known Epicurean theory of life which does not assign to the pleasures of the intellect, of the feelings and imagination, and of the moral sentiments, a much higher value as pleasures than to those of mere sensation. It must be admitted, however, that utilitarian writers in general have placed the superiority of mental over bodily pleasures chiefly in the greater permanency, safety, uncostliness, &c., of the former that is, in their circumstantial advantages rather than in their intrinsic nature. And on all these points utilitarians have fully proved their case; but they might have taken the other, and, as it may be called, higher ground, with entire consistency. It is quite compatible with the principle of utility to recognise the fact, that some kinds of pleasure are more desirable and more valuable than others. It would be absurd that while, in estimating all other things, quality is considered as well as quantity, the estimation of pleasures should be supposed to depend on quantity alone.

If I am asked, what I mean by difference of quality in pleasures, or what makes one pleasure more valuable than another, merely as a pleasure, except its being greater in amount, there is but one possible answer. Of two pleasures, if there be one to which all or almost all who have experience of both give a decided preference, irrespective of any feeling of moral obligation to prefer it, that is the more desirable pleasure. If one of the two is, by those who are competently acquainted with both, placed so far above the other that they prefer it, even though knowing it to be attended with a greater amount of discontent, and would not resign it for any quantity of the other pleasure which their nature is capable of, we are justified in ascribing to the preferred enjoyment a superiority in quality, so far outweighing quantity as to render it, in comparison, of small account.

Now it is an unquestionable fact that those who are equally acquainted with, and equally capable of appreciating and enjoying, both, do give a most marked preference to the manner of existence which employs their higher faculties. Few human creatures would consent to be changed into any of the lower animals, for a promise of the fullest allowance of a beast’s pleasures; no intelligent human being would consent to be a fool, no instructed person would be an ignoramus, no person of feeling and conscience would be selfish and base, even though they should be persuaded that the fool, the dunce, or the rascal is better satisfied with his lot than they are with theirs. They would not resign what they possess more than he, for the most complete satisfaction of all the desires which they have in common with him. If they ever fancy they would, it is only in cases of unhappiness so extreme, that to escape from it they would exchange their lot for almost any other, however undesirable in their own eyes. A being of higher faculties requires more to make him happy, is capable probably of more acute suffering, and is certainly accessible to it at more points, than one of an inferior type; but in spite of these liabilities, he can never really wish to sink into what he feels to be a lower grade of existence. We may give what explanation
we please of this unwillingness; we may attribute it to pride, a name which is given indiscriminately to some of the most and to some of the least estimable feelings of which mankind are capable; we may refer it to the love of liberty and personal independence, an appeal to which was with the Stoics one of the most effective means for the inculcation of it; to the love of power, or to the love of excitement, both of which do really enter into and contribute to it; but its most appropriate appellation is a sense of dignity, which all human beings possess in one form or other, and in some, though by no means in exact, proportion to their higher faculties, and which is so essential a part of the happiness of those in whom it is strong, that nothing which conflicts with it could be, otherwise than momentarily, an object of desire to them. Whoever supposes that this preference takes place at a sacrifice of happiness—that the superior being, in anything like equal circumstances, is not happier than the inferior—confounds the two very different ideas, of happiness, and content. It is indisputable that the being whose capacities of enjoyment are low, has the greatest chance of having them fully satisfied; and a highly-endowed being will always feel that any happiness which he can look for, as the world is constituted, is imperfect. But he can learn to bear its imperfections, if they are at all bearable; and they will not make him envy the being who is indeed unconscious of the imperfections, but only because he feels not at all the good which those imperfections qualify. It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied. And if the fool, or the pig, is of a different opinion, it is because they only know their own side of the question. The other party to the comparison knows both sides.

It may be objected, that many who are capable of the higher pleasures, occasionally, under the influence of temptation, postpone them to the lower. But this is quite compatible with a full appreciation of the intrinsic superiority of the higher. Men often, from infirmity of character, make their election for the nearer good, though they know it to be the less valuable; and this no less when the choice is between two bodily pleasures, than when it is between bodily and mental. They pursue sensual indulgences to the injury of health, though perfectly aware that health is the greater good. It may be further objected, that many who begin with youthful enthusiasm for everything noble, as they advance in years sink into indolence and selfishness. But I do not believe that those who undergo this very common change, voluntarily choose the lower description of pleasures in preference to the higher. I believe that before they devote themselves exclusively to the one, they have already become incapable of the other. Capacity for the nobler feelings is in most natures a very tender plant, easily killed, not only by hostile influences, but by mere want of sustenance; and in the majority of young persons it speedily dies away if the occupations to which their position in life has devoted them, and the society into which it has thrown them, are not favourable to keeping that higher capacity in exercise. Men lose their high aspirations as they lose their intellectual tastes, because they have not time or opportunity for indulging them; and they addict themselves to inferior pleasures, not because they deliberately prefer them, but because they are either the only ones to which they have access, or the only ones which they are any longer capable of enjoying. It may be questioned whether anyone who has remained equally susceptible to both classes of pleasures, ever knowingly and calmly preferred the lower; though many, in all ages, have broken down in an ineffectual attempt to combine both.
From this verdict of the only competent judges, I apprehend there can be no appeal. On a question which is the best worth having of two pleasures, or which of two modes of existence is the most grateful to the feelings, apart from its moral attributes and from its consequences, the judgment of those who are qualified by knowledge of both, or, if they differ, that of the majority among them, must be admitted as final. And there needs be the less hesitation to accept this judgment respecting the quality of pleasures, since there is no other tribunal to be referred to even on the question of quantity. What means are there of determining which is the acutest of two pains, or the intensest of two pleasurable sensations, except the general suffrage of those who are familiar with both? Neither pains nor pleasures are homogeneous, and pain is always heterogeneous with pleasure. What is there to decide whether a particular pleasure is worth purchasing at the cost of a particular pain, except the feelings and judgment of the experienced? When, therefore, those feelings and judgment declare the pleasures derived from the higher faculties to be preferable in kind, apart from the question of intensity, to those of which the animal nature, disjoined from the higher faculties, is susceptible, they are entitled on this subject to the same regard.

I have dwelt on this point, as being a necessary part of a perfectly just conception of Utility or Happiness, considered as the directive rule of human conduct. But it is by no means an indispensable condition to the acceptance of the utilitarian standard; for that standard is not the agent’s own greatest happiness, but the greatest amount of happiness altogether; and if it may possibly be doubted whether a noble character is always the happier for its nobleness, there can be no doubt that it makes other people happier, and that the world in general is immensely a gainer by it. Utilitarianism, therefore, could only attain its end by the general cultivation of nobleness of character, even if each individual were only benefited by the nobleness of others, and his own, so far as happiness is concerned, were a sheer deduction from the benefit. But the bare enunciation of such an absurdity as this last, renders refutation superfluous.

According to the Greatest Happiness Principle, as above explained, the ultimate end, with reference to and for the sake of which all other things are desirable (whether we are considering our own good or that of other people), is an existence exempt as far as possible from pain, and as rich as possible in enjoyments, both in point of quantity and quality; the test of quality, and the rule for measuring it against quantity, being the preference felt by those who in their opportunities of experience, to which must be added their habits of self-consciousness and self-observation, are best furnished with the means of comparison. This, being, according to the utilitarian opinion, the end of human action, is necessarily also the standard of morality; which may accordingly be defined, the rules and precepts for human conduct, by the observance of which an existence such as has been described might be, to the greatest extent possible, secured to all mankind; and not to them only, but, so far as the nature of things admits, to the whole sentient creation.

[...] I must again repeat, what the assailants of utilitarianism seldom have the justice to acknowledge, that the happiness which forms the utilitarian standard of what is right in conduct, is not the agent’s own happiness, but that of all concerned. As between his own happiness and that of others, utilitarianism
requires him to be as strictly impartial as a disinterested and benevolent spectator. In the golden rule of Jesus of Nazareth, we read the complete spirit of the ethics of utility. To do as one would be done by, and to love one’s neighbour as oneself, constitute the ideal perfection of utilitarian morality. As the means of making the nearest approach to this ideal, utility would enjoin, first, that laws and social arrangements should place the happiness, or (as speaking practically it may be called) the interest, of every individual, as nearly as possible in harmony with the interest of the whole; and secondly, that education and opinion, which have so vast a power over human character, should so use that power as to establish in the mind of every individual an indissoluble association between his own happiness and the good of the whole; especially between his own happiness and the practice of such modes of conduct, negative and positive, as regard for the universal happiness prescribes: so that not only he may be unable to conceive the possibility of happiness to himself, consistently with conduct opposed to the general good, but also that a direct impulse to promote the general good may be in every individual one of the habitual motives of action, and the sentiments connected therewith may fill a large and prominent place in every human being’s sentient existence. If the impugners of the utilitarian morality represented it to their own minds in this its true character, I know not what recommendation possessed by any other morality they could possibly affirm to be wanting to it: what more beautiful or more exalted developments of human nature any other ethical system can be supposed to foster, or what springs of action, not accessible to the utilitarian, such systems rely on for giving effect to their mandates.
Bibliography


