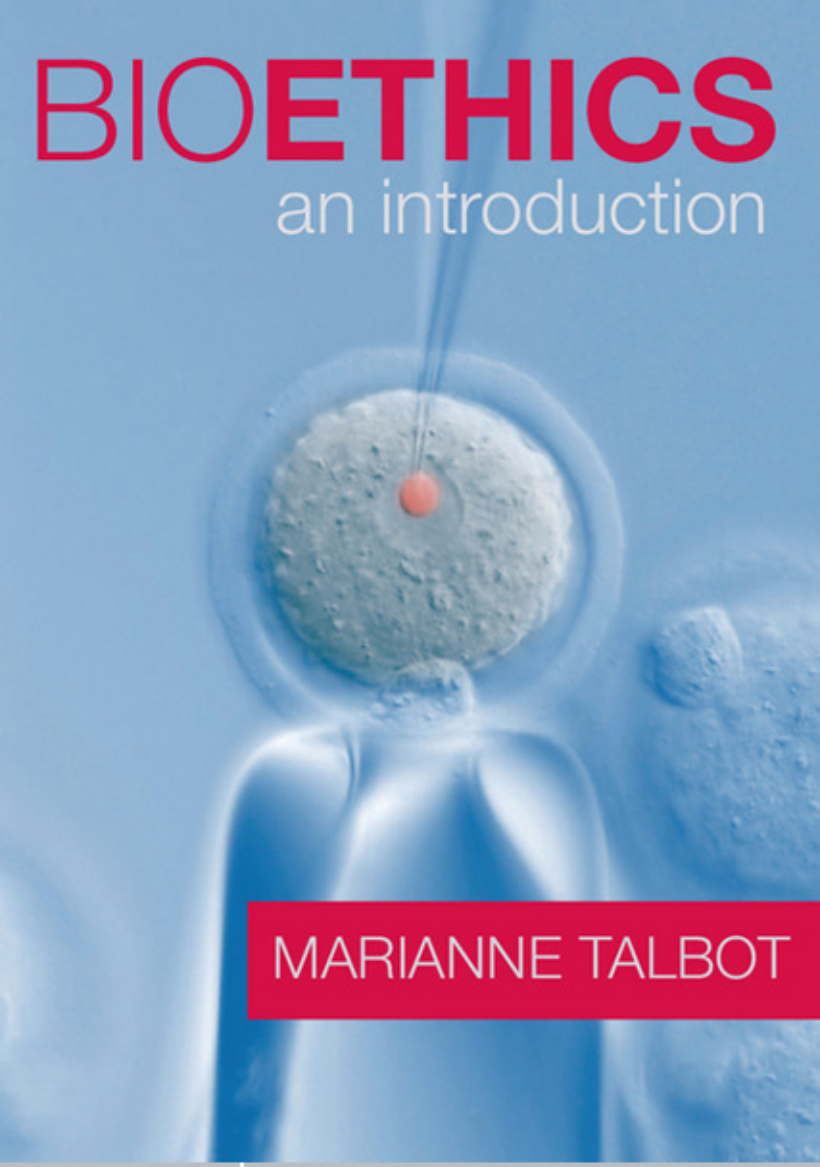
BIOETHICS
an introduction



MARIANNE TALBOT

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Bioethics

An Introduction

Providing readers with the confidence needed to debate key issues in bioethics, this introductory text clearly explains bioethical theories and their philosophical foundations.

Over 250 activities introduce topics for personal reflection, and discussion points encourage students to think for themselves and build their own arguments. Highlighting the potential pitfalls for those new to bioethics, each chapter features boxes providing factual information and outlining the philosophical background, along with detailed case studies that offer an insight into real-life examples of bioethical problems. Within-chapter essay questions and quizzes, along with end-of-chapter review questions, allow students to check their understanding and to broaden their thinking about the topics discussed.

The accompanying podcasts by the author (two of whose podcasts on iTunesU™ have attracted over 3 million downloads) explain points that might be difficult for beginners. These, along with a range of extra resources for students and instructors, are available at www.cambridge.org/bioethics.

Marianne Talbot has been Director of Studies in Philosophy at Oxford University's Department For Continuing Education since 2001, where she is responsible for the university's lifelong learning in philosophy. Talbot pioneered Oxford's popular online short courses, and has more recently specialised in teaching ethics to scientists. She teaches ethics for Doctoral Training Centres in Oxford and in London, has trained the EPSRC itself in ethics and has written two online courses in bioethics for Oxford University.

Bioethics

An Introduction

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PREFACE

If you are reading this you must have at least a passing interest in the ethical and social issues generated by biotechnology. Maybe a newspaper article or television programme has made you worry about cloning, bio-security or human–animal hybrids? Perhaps you have found yourself embroiled in a bioethical problem at work or as the result of needing IVF? Or perhaps you are a student required to do bioethics as part of your course? Or a school teacher, or college or university lecturer charged with teaching bioethics? If you are an instructor there are special notes for you at the end of this section.

I have written this book to help anyone with an interest in the ethical and social problems thrown up by our fastest moving areas of science and technology. The book will help its readers:

- understand the key issues in bioethics and the different positions people take on them;
- appreciate the arguments for and against the differing positions;
- discuss the issues with confidence;
- think productively about the issues that might arise in the future;
- come to their own considered positions on various issues, understanding the arguments for and against those positions.

I am a philosopher not a scientist.[1] This is an advantage because ethics is a philosophical discipline, not a scientific one. Both philosophers and scientists aim to discern truth, but the truths they aim to discern are different, as are the methods they use to discern them.

Philosophical background: science and philosophy

Scientists rely on observation, reason and empirical experiment to acquire an understanding of how the world is governed by the laws of nature.

Philosophers rely on reason, argument and thought experiment[2] to acquire an understanding of how the world is governed by the laws of logic.

The remit of a philosopher is wider than the remit of the scientist. The scientist is concerned only with:

- empirical possibilities (events consistent with the laws of nature),
- what *is* the case.

Philosophers are also concerned with:

- logical possibilities (events consistent with the laws of logic),
- what *ought* to be the case.

No amount of experimentation in the laboratory, or even in the field, will generate an adequate account of right and wrong. Observation and experiment will only tell us how things *are*, not how things *ought to be*. To determine right and wrong it is necessary to invoke the methodology of the philosopher.

I have been teaching bioethics for many years. I started by writing activities for the Labnotes' series for the Wellcome Trust. I regularly teach bioethics to students of the doctoral training centres funded by the Engineering and Physical Sciences Research Council (EPSRC[3]) at Oxford, Imperial College, London, Sheffield and Manchester Universities. I wrote two of Oxford University's popular online courses on bioethics, one for students of the MSc in bioinformatics and one for the public. I like to think I know the pitfalls that intelligent people can fall into in thinking about ethics, and that reading this book will help you to avoid them.

I have started from the assumption that readers will not have a philosophical background. For this reason I have included a chapter on how to construct, analyse and evaluate arguments. Readers will practise these reasoning skills as they work through the activities in this book. A lot of these activities are discussions. This is because argument – the life-blood of the philosophical method – might best be seen as the *collaborative* pursuit of truth. Although we can engage in solitary argument by playing devil's advocate to ourselves, an activity encouraged in this book, there is no substitute for arguing with others.

I have kept philosophical background to a minimum directing readers to additional resources to follow up anything of particular interest.

Factual information: The devil's advocate

When the Roman Catholic Church is considering a candidate for sainthood, his or her case is made by The Promoter of the Cause, otherwise known as God's Advocate (Advocatus Dei). In 1587 Pope Sixtus V appointed a Devil's Advocate (Advocatus Diaboli), whose job it would be to argue against the canonisation.

The title 'devil's advocate' is used in everyday conversation to mean a person who, irrespective of his own position, argues against a position being considered.

If the devil's advocate's arguments succeed, the argument under consideration is not a good one. If his arguments fail, they will strengthen the argument being considered.[4]

This book is about the ethics of biotechnology. This means we shall not be discussing issues such as patient confidentiality or autonomy, nor those involving scientific misconduct or arising from the pressure to publish. These are issues of medical ethics or the ethics of science more generally. We shall discuss issues common to bioethics

and these other disciplines – for example euthanasia, animal rights and open source publishing – but always from a biotechnological perspective.

It is always difficult to decide how to structure a book like this. A field as broad as bioethics does not fall neatly into pigeonholes. Here is a description of the way this book is structured:

Part I introduces the reader to biotechnology and bioethics, to ethics in general, ethics in the context of society and the most important ethical theories. It also considers the nature of argument and how to evaluate arguments, and some general arguments that arise with respect to all the issues discussed in the book and that will certainly be familiar to you.

In Part II we will consider the ethical decisions we face, collectively and individually, as (and for) potential parents and their children, and those who are aging and dying. These include human cloning, both therapeutic and reproductive, reproductive freedom, the shortage of reproductive resources and how it might be alleviated, embryo selection and its relation to eugenics, the nature of death, the moral acceptability of 'curing' it, and finally the moral acceptability of assisted suicide and euthanasia.

In Part III we will turn to the issues that, in the midst of life, we have a duty collectively and individually to consider as citizens and subjects with duties to ourselves, each other and to nature. Under *our duties to ourselves* we will consider biological enhancement, bioinformation, 'garage' biology and biological warfare. In *our duties to each other* we will discuss food and energy security, bio-ownership, and justice between the developed and developing worlds. Finally we'll discuss *our duties to nature*, including our duties to non-human animals and the non-living environment.

It might be objected that this structure is anthropomorphic because the focus is on us and the decisions we face. I accept this, but believe it can be justified: it is largely the decisions *we* make that will shape the future, for ourselves and the generations to come, for the environment and for non-human animals. This book aims to make some contribution to ensuring that these decisions are informed by reason and reflection.

That's it with the preliminaries. I hope you enjoy reading this book as much as I have enjoyed writing it.

Notes

1 http://www.philosophy.ox.ac.uk/members/marianne_talbot (the author's website at the Faculty Of Philosophy, University of Oxford); www.mariannetalbot.co.uk (the author's official website).

2 http://www.philosophybites.libsyn.com/category/Julian%20Baggini (Philosopher Julian Baggini on thought experiments for Philosophy Bites). See also: http://www.practicalethics.ox.ac.uk/audio/analysis_280609.mp3. Janet Radcliffe-Richards on the same topic.

3 http://www.epsrc.ac.uk/Pages/default.aspx.

4 http://www.newadvent.org/cathen/01168b.htm (The Catholic Encyclopedia entry on the Devil's Advocate).

USING THIS BOOK

Each chapter of this book:

1. Starts with a list of objectives to be met by reading the chapter;
2. Includes boxes containing:

   Activities to deepen thinking, stimulate discussion, and enhance analytical skills;

   Case studies to illustrate issues under discussion;

   Factual information about the issue being discussed;

   Philosophical background on the issue under discussion;

   Definitions.

   To avoid possible misunderstandings the definition boxes should always be read. The other boxes are not usually necessary for the understanding of the text (it will be made clear when it is necessary), but reading them will take readers just that bit further on matters of particular interest.

3. Ends with:
   (a) A **summary** of its content;
   (b) A series of **questions** to stimulate reflection;
   (c) A list of **additional activities** by which to enhance understanding;
   (d) A list of **further reading** and **useful websites**.

Ideally the book should be read in the order in which it is presented. If this is too much philosophy too soon, the book can be read in the order that appeals to the reader who will be directed, when necessary, to other parts of the book to glean the background information needed.

The book is accompanied by a dedicated website (www.cambridge.org/bioethics) on which readers will find:

(a) Links to all the references in the book that are available on the web;
(b) Updates on issues in bioethics since the writing of the book;
(c) Short podcasts by the author explaining concepts, distinctions and issues she knows to be particularly difficult for those new to the area.

Much of the additional reading to which readers will be directed is available online. This makes it easier for references regularly to be updated. Many references will be to newspaper articles or television or radio pieces on the issues under discussion.

Some might think this use of the media discredits bioethics as a discipline. I disagree. Most people reading this book will have no intention of becoming professional bioethicists. They do not need scholarly articles or worthy books, nor do they have time to read them, they just need a grasp of the issues in question. They will usually find it easier, quicker and more enjoyable to acquire such a grasp from the sort of references I have included. At the end of the book, and on the website, I have included a list of places to go and books to read for those who do wish to study further.

NOTE FOR INSTRUCTORS

If you are using this book to teach bioethics to classes at any level you will find the activity boxes, and the boxes of *additional activities* you'll find at the end of every chapter, useful for setting students tasks inside or outside the classroom.

Many of these activities involve discussions for pairs of students, or for groups (small or large). They can be used in different ways, for example:

1. You might allocate students sides in the discussion irrespective of their own views (this is useful to encourage them to consider the side of the argument other than their own);
2. You might use the discussion during class without the students preparing, or ask them to prepare by setting work for them to do outside the classroom;
3. If you have the luxury of time you could ask students to organise a formal debate to which others might be invited.

The 'questions to stimulate reflection', also found at the end of each chapter, will be useful for triggering discussion in class, for setting essays, or just to give students something to think about.

The author's podcasts, available on the website, have been designed to help people acquire difficult and/or unfamiliar concepts, distinctions and ideas. None of them is more than 10 minutes in length, and some instructors may find them useful in the classroom, or for students to watch outside the classroom.

Many of those who teach bioethics are specialists who have been properly trained in bioethics. These people will be able to use this book without any special preparation. I hope they will find the book accessible to their students and enjoyable to use.

Some of those tasked with teaching bioethics, however, are not specialists in this area. Some, indeed, have relatively little experience of the area, but having expressed an interest find themselves teaching it, often without having been given much time to acquire the understanding they need to plan lessons and teach with confidence. There is a special area of the website (www.cambridge.org/bioethics) devoted to those in this position, which is accessible by getting a password from the publisher of this book. In this area of the website you will find:

1. Course and lesson plans for various course lengths and depths;
2. References to help you acquire – as efficiently as possible – a deeper background understanding of the issues discussed in each chapter;
3. Figure files, along with files for the activity and case study boxes and the discussion questions.

Even those most experienced in teaching bioethics, of course, may find themselves short of time for lesson planning and preparation. You might also find this part of the website of interest.

If you have any ideas the implementation of which would make the website more helpful to you as an instructor, I should be grateful if you could let me know by leaving your comments on the website, I appreciate your willingness to help.

ACKNOWLEDGEMENTS

I should like to thank all the directors and administrators at the Life Sciences Interface Doctoral Training Centre at the University of Oxford, and at the Chemical Biology Doctoral Training Centre at Imperial College London. Thank you also to the people at Technology Assisted Lifelong Learning (TALL) and the Department for Continuing Education at the University of Oxford, especially those who were instrumental in putting together the online courses in bioethics for public programmes and the MSc in bioinformatics. Thank you also to the people at the Engineering and Physical Sciences Research Council: I greatly enjoyed the session I held with you. Katie Fletcher and Reuben Thorley, thank you for reading drafts of the books and for your useful corrections.

In particular though I should like to thank all the students to whom I have taught bioethics, both face to face and online: your questions were brilliant and your disagreements instructive. I am privileged to have taught you.

Thank you also to everyone at Cambridge University Press.

Part I Bioethics and Ethics

1 Biotechnology and bioethics: what it's all about

Objectives

In reading this chapter you will:

- reflect on the nature of bioethics;
- familiarise yourself with the definition of biotechnology that we will use in this book;
- reflect on the interdisciplinary and multi-disciplinary nature of biotechnology;
- consider the place of biology in biotechnology;
- consider briefly the history of biotechnology;
- reflect on how bioethics is generated by biotechnology;
- acquire an understanding of the different biotechnologies that generate social and ethical issues.

Bioethics is the study of the ethical and social issues generated by biotechnology.[1] In Box 1.1 you will find the definition of biotechnology that we will use in this book.

Box 1.1 Definition: Biotechnology

Biotechnology is the application of science and technology to living organisms and their parts, or to products and models of living organisms, in the hope of producing understanding, goods or services.

Examples of work in biotechnology:

- physicists and engineers working together to produce nano-vehicles, vehicles small enough to enter the bloodstream and deliver drugs to cure various diseases;
- geneticists and information technologists helping to eliminate adverse drug effects and make personalised medicine a reality;
- engineers and biologists working together to engineer organisms that will alert us to, and even remove, pollutants from the environment.[2]

This definition of biotechnology makes it clear that the 'bio' of biotechnology refers to the subject matter of biotechnology, not the disciplines involved. Biotechnology is *multidisciplinary* in that it involves many different disciplines, all the pure and applied sciences in fact, and *interdisciplinary* in that all these sciences and technologies work together to achieve biotechnological ends.

The 'bio' bit is important because in biotechnology, these different sciences and technologies are all applied to biological organisms: to living organisms, their parts and products, and to models of such organisms. Biology is central to the pursuit of biotechnological ends because biotechnology is the application of science and technology to biological organisms.

Box 1.2 Activity: Conceptual analysis

Put 'Def: "biotechnology"' into a search engine. Choose two definitions that differ from the one in Box 1.1, and compare and contrast the three definitions.

Can you think of a situation in which the definition of 'biotechnology' would be important?

Biotechnology, arguably, has been practised continuously since the Sumerians discovered how to use yeast to brew beer in 1750 BC. Modern biotechnology emerged in the twentieth century as we acquired the understanding and ability to manipulate organisms at the molecular level, specifically as we acquired the understanding and skills needed to manipulate an organism's genes.[3]

This understanding, and the skills we have developed as a result of it, enables us to do many things our ancestors never dreamed of. Our ability to manipulate the characteristics of plants and animals, for example, no longer depends on the techniques of selective breeding. We can directly engineer the genes of organisms to produce the traits that interest us, clone animals that possess these traits, or even create synthetic organisms capable of performing desired functions.

Figure 1.1 Sequencing human DNA. © iStockphoto.com/dra_schwartz.

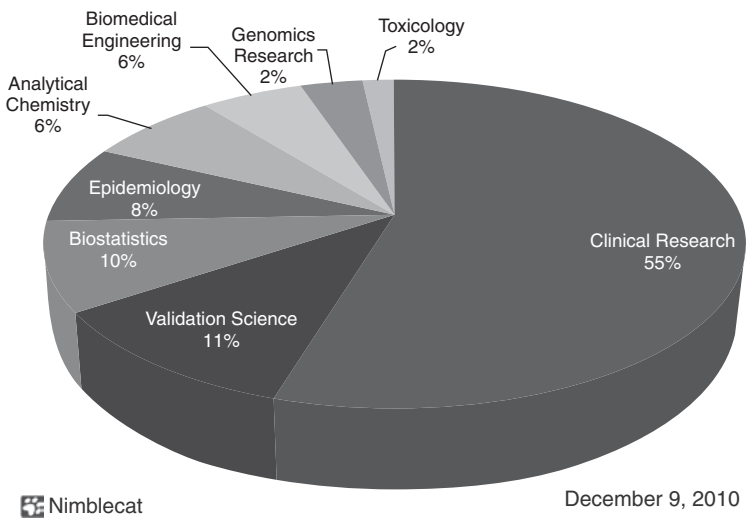

Figure 1.2 The people that biotechnology companies in the USA were hiring in November 2010. Image courtesy of nimblecat.com. (http://nimblecat.typepad.com/thecareerists/2010/12/55-of-new-biotech-jobs-in-clinical-research.html).

Biotechnology in relation to human beings received a huge boost from the completion in 2003 of the Human Genome Project,[4] which sequenced and mapped the 25–26 000 genes in the human genome.

Current projects involve attempts (many already very successful) to:

- discover the function of the various genes;
- map the locations of common variations between individuals;
- correlate these bio-markers with phenotypical traits of interest;
- develop techniques to detect the presence of important bio-markers;
- develop techniques by which to manipulate gene expression.

Biotechnology is advancing at a breathtaking pace, facilitating the development of numerous potentially life-enhancing and life-saving techniques.[5]

Box 1.3 Case study

In 2009 a private company in the UK started marketing an 'over-the-counter' paternity testing kit. Customers send samples of their own DNA and that of the child whose paternity is in doubt and, for a fee, get results within 5 days (or 24 hours for a higher fee).

Two adults must consent to the procedure: the putative father and the mother of the child. Proof of identity is required and one adult will be telephoned to check that the consequences of possible test results have been considered.

Many have argued that such kits should be banned on the grounds that the consent requirements are too easy to get around, and that children may be summarily rejected by the man who has brought them up if he discovers he is not their biological father.

Until biotechnology came up with the techniques facilitating the development of such products paternity had to be taken on trust. Many think this was morally a more desirable situation, and that society should therefore ban or at least regulate the use of such a product. Others argue that men have the right to know their own children, and children the right to know their own fathers.[6]

Because biotechnology enables us to do many things human beings have never been able to do before, it has generated and will continue to generate many new ethical issues, issues concerning what we *should* and *shouldn't* do, and many new social issues, issues concerning what we as a society should and shouldn't allow, or should or shouldn't fund. Bioethics is the discipline that studies the actions permitted by biotechnology – actions like cloning or genetic engineering – and asks whether or not these actions are morally acceptable, and if so how we should manage them socially in order to promote citizens' welfare, protect their rights and treat them fairly.

Box 1.4 Factual information: Mapping biotechnologies onto issues in this book

The techniques of biotechnology do not map neatly onto the ethical issues that are generated by biotechnology. For example, genetic engineering produces ethical issues in respect of designer babies, GM foods and our use of animals.

If you are interested in a particular biotechnological technique this will help you find the chapter(s) in which you'll find a discussion of the ethical issues generated by it.

The techniques of assisted reproduction[7]

Under this heading fall all the techniques by which individuals and couples having trouble conceiving can be helped to achieve a healthy baby. There are many such techniques of which in vitro fertilisation – the mixing, in a Petri dish, of sperm and egg in such a way as to ensure the fertilisation of the egg – is probably the best known. The social and ethical issues generated by such techniques are discussed in Chapters 9, 10 and 11.

Cloning[8]

Every time a cutting of a plant successfully roots the plant is cloned. We have been cloning plants by such means for centuries. In the late twentieth century, however, a mammal – Dolly the sheep – was cloned for the first time by means of somatic cell nuclear transfer. The social and ethical issues generated by cloning are discussed in Chapters 7 and 8.

Genetic screening/testing[9]

The techniques of genetic screening/testing include any means by which we can identify (some part of) the genetic inheritance of an individual. The most controversial of these techniques is pre-implantation genetic diagnosis. This involves taking an eight cell embryo and removing just one cell for analysis. The social and ethical issues such techniques engender are discussed in Chapter 11.

The technology of life support[10]

These technologies include techniques by which to maintain circulation when the heart no longer beats spontaneously and nutrition and hydration when a patient is unable to eat or drink. The social and ethical issues generated by such technologies are discussed in Chapters 12 and 13.

Genetic engineering[11]

Sometimes called genetic modification, genetic engineering involves the introduction, elimination and modification of genes in such a way as to affect the properties or behaviour of an individual human, plant or non-human animal (and perhaps the properties and behaviours of its progeny). Such techniques and the issues surrounding them are discussed in Chapter 17.

Bioinformatics[12]

Bioinformatics involves the application of information technology to the various fields of molecular biology. Specifically, it involves developing methods for storing, retrieving, comparing and analysing biological data. It generates social and ethical issues that are discussed in Chapter 18.

Pharmacogenetics/pharmacogenomics[13]

The techniques grouped under these names, for all practical purposes interchangeable, comprise the study of the genetic variations that determine an individual's metabolism and response to various drugs. The social and ethical issues that arise from such techniques are discussed in Chapter 19.

Synthetic biology[14]

A relative newcomer to the discipline of biotechnology, synthetic biology involves the re-design and fabrication of existing organisms, and the design and fabrication of organisms that don't exist in nature. Such activities generate social and ethical issues that are discussed in Chapter 18.

Nanotechnology[15]
A 'nanometre' is one billionth of a metre (1×10^{-9}). Nanotechnology exploits the properties and behaviours of the very small.[16] Nanotechnology is sometimes characterised as 'soft' or 'hard' depending on whether it exploits a biological system ('soft') or a mechanical system ('hard'). The social and ethical issues generated by soft nanotechnology will be discussed in Chapter 18.

Before we can consider specific issues in bioethics we need to acquire some understanding of the nature of ethics in general. We will do this in the next chapter.

Summary

In this chapter we have considered:

- the fact that bioethics is the study of the ethical and social issues generated by biotechnology;
- the definition of biotechnology that we will be using in this book;
- a brief account of the history of biotechnology;
- the fact that biotechnology generates ethical and social issues by enabling us to perform actions we have never been able to perform before;
- the fact that biotechnological techniques do not map neatly onto the ethical issues;
- a list of techniques and indications of where in the book discussions of them will be found.

Questions to stimulate reflection

What is the difference between biotechnology's being *interdisciplinary* and *multidisciplinary?*

Can you think of a few of the advantages and disadvantages to be derived from biotechnology's being interdisciplinary?

What do you think might be advantageous and disadvantageous about biotechnology's being multidisciplinary?

How do advances in biotechnology generate ethical problems?

What do you think might be the difference between an *ethical* problem and a *social* problem?

Can you think of two examples each of (1) an ethical problem generated by biotechnology, and (2) a social problem generated by biotechnology?

Additional activities

Make a list of actions that are now possible thanks to biotechnology but which weren't possible 100 years ago.

Using your list identify at least one ethical or social problem that is generated by this action.

Put 'bioethics' into a search engine and follow up anything that interests you.

Conduct an informal opinion poll amongst your friends, family and fellow students on what they understand by 'bioethics' (you might find yourself having to explain it quite often: be prepared!).

Buy yourself an exercise book in which to write your thoughts as you work through this book. Start by writing down your own understanding of the nature of bioethics.

Identify from the list in Box 1.4 a biotechnology that particularly interests you. In your diary jot down the ethical and social issues you think might be generated by it.

Put 'ethics' into the search facility of the website of the agency that funds biotechnological research in your country, and see if you can find anything interesting.

Notes

1 'Bioethics' can also be used more widely to cover the biomedical sciences, but we are concentrating on this aspect of bioethics (see Preface, p. viii).
2 http://www.biotechinstitute.org/careers/career_profiles.html. Biotechnologists talk about their careers on the website of the Biotechnology Institute.
3 http://www.biotechinstitute.org/what_is/timeline.html. A timeline of biotechnology from the Institute of Biotechnology in the United States.
4 http://www.ornl.gov/sci/techresources/Human_Genome/home.shtml. Information pages from the Human Genome Project.
5 http://www.wellcome.ac.uk/Funding/Biomedical-science/Funded-projects/Major-initiatives/WTDV029748.htm. Information about the 1000 Genomes Project from the Wellcome Trust.
6 http://www.dailymail.co.uk/health/article-1200420/Fathers-30-DNA-paternity-test-counter-cost-119-results-back.html. An article from the UK's *Daily Mail* on the introduction of paternity testing kits.
7 http://www.fertilityexpert.co.uk/chapter-three-assisted-reproduction-techniques.html. An article on the techniques of assisted reproduction from the website of Fertility Expert in the UK.
8 http://www.reuters.com/article/idUSN1551320720080115. Facts and a timeline on cloning from the Reuters website.
9 http://www.ukgtn.nhs.uk/gtn/Home. Information about genetic testing in the UK from the UK Genetic Testing Network.

10 http://www.deathreference.com/Ke-Ma/Life-Support-System.html. Definition of 'Life Support' from the Encyclopedia of Death and Dying.
11 http://www.eurekascience.com/ICanDoThat/gen_eng.htm. A simple explanation of genetic engineering from Eureka Science.
12 http://www.bioinformatics.org/wiki/Bioinformatics_FAQ. Information about bioinformatics from the Bioinformatics Organization in the United States.
13 http://ghr.nlm.nih.gov/handbook/genomicresearch/pharmacogenomics. An account of pharmacogenomics from the US National Library of Medical Information.
14 http://www.youtube.com/watch?v=XIuh7KDRzLk&feature=related. YouTube video of Drew Endy (an assistant professor at Palo Alto) explaining synthetic biology.
15 http://www.nano.gov/nanotech-101/nanotechnology-facts. FAQ from the national Nanotechnology Initiative in the United States.
16 http://cpd.conted.ox.ac.uk/nanotechnology/nanobasics/nano/accessweb/history.html. The basics of nanotechnology from the University of Oxford.

Further reading and useful websites

Okasha, S. (2002) *A Very Short Introduction to Philosophy of Science*. Oxford: Oxford University Press.
Smith, J. E. (2009) *Biotechnology*. Cambridge: Cambridge University Press.
Stephansson, H. (ed.) (2002) *Life Sciences in Transition: A Special Edition of the JMB*. London: Academic Press.
Walker, S. (2006) *Biotechnology Demystified*. New York: McGraw-Hill Professional.

http://wings.buffalo.edu/faculty/research/bioethics/osce.html. Standardised Patient Scenarios for teaching bioethics from the University of Toronto.
http://www.bbsrc.ac.uk/. The website of the UK's Biotechnology and Biological Sciences Research Council.
http://www.beep.ac.uk/content/46.0.html. The website of the Bioethics Education Project funded by the Wellcome Trust and based at the Graduate School of Education, University of Bristol.
http://www.bioethics.ac.uk/index.php. The Biocentre, a site which examines new biotechniques from a social and ethical perspective.
http://www.nsf.gov/about/. The website of the National Science Foundation, who fund research in the United States.

2 Ethics in general: ethics, action and freedom

Objectives

In reading this chapter you will:

- reflect on the practical nature of ethics;
- consider the place of rules in ethical decision-making;
- acquire an understanding of why ethical dilemmas arise;
- learn how to distinguish *first order* ethics and *second order* ethics;
- consider the relation between ethics and truth;
- learn how to distinguish epistemology from metaphysics;
- reflect on the importance of free will to ethics and on the possibility we do not have free will;
- think about how religion is related to ethics.

People can be surprised to discover that ethics is primarily a practical discipline. But if ethics didn't link with action it would be useless. Ethics, after all, is concerned with what we should and shouldn't *do*. Should we clone human beings (Chapters 7 and 8)? Should we pursue immortality (Chapter 12)? Should we produce genetically modified crops (Chapter 17) or 'engineer' our genes (Chapter 14) or those of animals (Chapters 17 and 20)? All these decisions are ethical decisions.

Ethics and rules

Ethical decision-making would be easy if all we had to do was follow the small set of rules – 'do not lie', 'keep promises' and so on – we were given as we grew up. But there is more to moral decision-making than this. Consider the following situation:

Your friend comes home from the hairdresser's, strikes a pose and says: 'what do you think?' You think: 'yuk!'

You have a problem. It is not a problem you can solve by invoking the rules you were given as a child. Those would certainly have included both 'be honest' and 'be kind' and your problem is that in this situation it seems impossible to be both honest *and* kind.

You might respond by being honest (and taking the risk of hurting your friend) or by being kind (risking your friend later discovering you weren't honest). Either response is justifiable. But both seem to involve breaking one of the rules with which you were brought up.

You might find yourself arguing that sometimes it is necessary to be cruel to be kind. Telling your friend you like her hair might lead to her going around looking awful. If you are right then being honest does not necessarily involve being unkind, and your problem dissolves.

Or you might argue that telling your friend she looks fine would only be a *white* lie. Telling a white lie, you might claim, doesn't really involve being dishonest. If you are right then again your problem dissolves: being kind doesn't involve being dishonest.

Box 2.1 Activity: Paired discussion

What would you do in the situation described? How would you justify your action?

Do you think the fact that there are different actions that could be counted as *right* in this situation means that nothing could count as wrong in this situation? Describe two actions that you think might be wrong in this situation.

Participants should have 10 minutes for discussion before being asked for feedback.

Hint: a person could act wrongly

- by doing *what* they do (if you told your friend she was stupid for asking you, many would think this was rude),
- by *the way in which they do it* (if you told your friend she looked fine, but in a sarcastic manner many would deem this wrong),
- in *the reason* for doing what they do (if you told your friend the truth, but only out of spite, your action would arguably be wrong).

But notice how moral decision-making forces us to reflect on our values, on what exactly we believe to be right and wrong. Kindness might involve hurting people. Honesty might not always mean telling the truth.

But there must be limits. At some point we have to ask ourselves what those limits are. At this point our dilemma will arise again.

Some people try to escape such dilemmas by giving themselves additional rules. They might decide that when honesty and kindness conflict they will always tell the truth (do you know anyone like this?) or that they will always be kind (do you know anyone like this?). By ordering their values, they hope to avoid moral dilemmas.

But is this wise? Imagine that when your friend comes home from the hairdressers it is the first time you have seen her smile for 6 months. Should honesty trump kindness here? Or imagine your friend's hair is so bad it will make her a laughing stock. Should you still put kindness before honesty? Devising a strict ordering of values may often lead to the wrong action.

Box 2.2 Activity: Playing devil's advocate

Imagine an ordering of values that *always* puts kindness before honesty. Can you come up with examples of situations in which this would produce the wrong action?

Variations might include orderings that always put:

- honesty before kindness;
- loyalty before honesty;
- honesty before loyalty.[1]

Ethics and truth

It seems that there is more to moral decision-making than following the rules you were given as a child, even supplemented by an ordering of these rules. But what is this 'more'? If there are no rules to guide our moral reasoning how can we be sure our moral reasoning is correct?

Some people believe that moral reasoning is not the sort of reasoning that *can* be correct, that moral judgements are not the sort of judgements that can be true (or false). We shall consider why some people think this when, in Chapter 6, we consider the argument entitled 'it's a matter of opinion'.

Other people – and this includes most philosophers – believe that moral judgements can be both correct and incorrect, and that it is possible to say something about what makes our moral reasoning correct or incorrect, our moral judgements true or false.

Theorising about ethics

To think about such issues, however, is to start *theorising* about morality, it is to start thinking not about whether a given type of action is right or wrong ('first order' moral issues), but about whether moral judgements can be true or false at all, and if they are, about what *makes* them true or false ('second order' moral issues).

Box 2.3 Activity: Personal reflection

Lying is wrong.

Do you think this statement is always true, sometimes true or never true?

If you think it is sometimes or always true, what do you think *makes* it true (when it is true)? If some sort of fact, *what* sort of fact?

If you think it is never true how would you explain why most people generally think of this statement as true (at least sometimes).

Once participants have had time to reflect on these questions, they could be used to stimulate group discussion.

Just as there are disagreements between scientists about almost any scientific theory, so there are disagreements between philosophers about the correct theory of morality. In Chapter 4 we shall be introduced to some of these theories.

As we work through the ethical and social issues generated by biotechnology we shall see these theories being applied in our attempts to deal with different dilemmas. We will also see why none of these theories can currently be considered to be the final word on ethics.

Box 2.4 Activity: Conceptual analysis

Can you sort the following questions into 'first order' (practical) questions, and 'second order' (theoretical) questions:

(i) Is reproductive cloning morally acceptable?
(ii) Should drug addicts be allowed to use IVF?
(iii) How can we know that a given moral judgement is true?
(iv) Should clinical trials be run according to different rules in developed and undeveloped countries?
(v) Could it ever be right to kill an innocent human being?
(vi) What makes a moral judgement true or false?
(vii) Is it morally permissible to discard embryos with the gene for Huntington's disease?
(viii) What sort of evidence can we cite for the claim that something is right or wrong?

Answers:
First order: (i), (ii), (iv), (v), (vii)
Second order: (iii), (vi), (viii).

Knowledge of right and wrong

One of the first things every student of philosophy has to learn is the difference between *metaphysics* and *epistemology*. In a nutshell metaphysics has to do what *is* the case. Epistemology has to do with how we *know* what is the case. To see the difference between these two consider the difference between the following two questions:

(i) Is it morally wrong to rob elderly ladies?
(ii) How do we know it is morally wrong to rob elderly ladies?

The first question is a 'yes or no' question about the ethics of a particular type of action: robbing elderly ladies. The second question demands our justification for the answer we give to the first question.

It might be thought that metaphysical questions are first order questions, and epistemological questions second order questions. But this is not the case. Consider the following questions:

(i) Is utilitarianism the correct account of morality?
(ii) How do we know that utilitarianism is the correct account of morality?

(Utilitarianism is one of the moral theories we shall be learning about in Chapter 4.) Here the metaphysical question is itself a second order question. The metaphysical/epistemological distinction appears in relation to this second order question in exactly the way it did in relation to the first order question. The fact is that we can always ask a question (ask what is true), and then ask how we can know we have the right answer to that question (ask how we can justify the claim that it *is* true).

The metaphysical/epistemological distinction doesn't just arise for questions, of course, there are also metaphysical claims such as 'lying is wrong', and epistemological claims such as 'I believe it is wrong to tell lies'. The first claim is a claim about lying, the second a claim about yourself and your beliefs.

If this seems double-dutch don't worry. The best way of acquiring an understanding of the metaphysics/epistemology distinction is to make use of it. You will be doing this throughout this book.

Box 2.5 Definitions: Metaphysics, ontology and epistemology

Metaphysics and ontology: Metaphysics is the study of what exists and what its nature is. Ontology[2] is the branch of metaphysics concerned with what exists.

> **For example**: a metaphysician will take the belief that there are physical objects (a belief that must be assumed by scientists if they are to get anything done) and subject it to rational scrutiny, asking what we are really saying when we say that physical objects exist. He will ask, for example, whether physical objects have some essential characteristic (four-dimensionality?) and what that characteristic really is.[3]

Epistemology: is the study of knowledge and justification.

> **For example**: an epistemologist will take any claim to the effect that physical objects exist, and he will ask what our reasons are for believing this, how conclusive those reasons are and whether those reasons could hold true even if physical objects didn't exist.[4]

Ethics, intentional action and free will

Because ethics is a practical subject, in thinking about ethics we are never far from thinking about action. In thinking about action, however, it is important to note that we are not thinking about everything we *do*, we are thinking only of the things we do *intentionally*, those we *choose* to do.

Consider coming into a room and tripping over a mat. Now consider coming into the room and *pretending* to trip over the mat. Although the things you do on each occasion seem identical, only the latter is an action, something you do intentionally, the former is not an action at all, it is something that *happens* to you.

When we talk about actions in talking about ethics, we are talking only of the things we do intentionally. The reason for this is that it is only the things we choose to do that can be counted as right or wrong. You cannot be either praised or blamed for something that happens to you.

The importance of intentional action to ethics is underpinned by the importance, to ethics, of the notion of free will. It is believed that only mature human beings can act morally (and immorally) because only mature human beings are capable of:

(i) understanding the difference between right and wrong;

and

(ii) freely choosing to perform actions *because* they are right or *despite* their being wrong.

Only human adults, in other words, are deemed capable of choosing freely to act for *moral* reasons.

Very young children are not usually considered to be full moral agents. This is because although they are believed to be capable of acting intentionally, they are not deemed capable of understanding the difference between right and wrong. They can't do something therefore *because* it is right. Nor can they prevent themselves from doing something *because* it is wrong. In many countries the law recognises this by not holding children fully responsible should they break the law.

Non-human animals are not usually accorded the status of moral agents at all.[5] This is partly because they are not believed to be capable of understanding the difference between right and wrong. It is also partly because many think they are incapable of acting intentionally, of freely choosing how to act. Many have believed that all the behaviour of non-human animals is determined by the laws of nature, by the physical state the animal is in and by the environmental conditions in which it finds itself. Behaviour that is determined by such things, not being freely chosen, is not believed to be morally evaluable. How, after all, can an animal (human *or* non-human) be held responsible for a behaviour it could not *but* perform given the laws of nature and the totality of the physical circumstances in which it was in?

Table 2.1 Age of criminal responsibility

Minimum age at which children are subject to penal law in countries with 10 million or more children under 18 years old

Mexico	6–12[a]
Bangladesh	7
India	7
Myanmar	7
Nigeria	7
Pakistan	7
South Africa	7
Sudan	7
Tanzania	7
Thailand	7
United States	7[b]
Indonesia	8
Kenya	8
UK (Scotland)	8
Ethiopia	9
Iran	9[c]
Philippines	9
Nepal	10
UK (England)	10
UK (Wales)	10
Ukraine	10
Turkey	11
Korea, Rep.	12
Morocco	12
Uganda	12
Algeria	13
France	13
Poland	13
Uzbekistan	13
China	14
Germany	14
Italy	14
Japan	14
Russian Federation	14
Viet Nam	14
Egypt	15
Argentina	16
Brazil	18[d]
Colombia	18[d]
Peru	18[d]
Congo, Dem. Rep.	–

[a] Most states 11 or 12 years; age 11 for federal crimes.
[b] Age determined by state, minimum age is 7 in most states under common law.
[c] Age 9 for girls, 15 for boys.
[d] Official age of criminal responsibility, from age 12 children's actions are subject to juvenile legal proceedings.
Sources: CRC Country Reports (1992–1996); Juvenile Justice and Juvenile Delinquency in Central and Eastern Europe, 1995; United Nations, Implementation of UN Mandates on Juvenile Justice in ESCAP, 1994; Geert Cappelaere, Children's Rights Centre, University of Gent, Belgium. http://www.unicef.org/pon97/p56a.htm.

Box 2.6 Philosophical background: Understanding right and wrong

You might object that your dog *does* understand the difference between right and wrong. You know this every time he looks guiltily at you when caught in some heinous act.[6]

Arguably though what your dog understands is the difference between behaviours that attract punishment and those that don't. This is a very different difference.

If you doubt this ask yourself which of these reasons would prevent you from stealing someone's purse:

(i) you might be caught and punished
(ii) it would be wrong.

One who understands the difference between right and wrong is one who wouldn't steal the purse even if there were no chance of being caught or punished.

They don't steal the purse because they recognise that it would be *wrong*. Even if this is some sort of internalisation of the fear of punishment it seems different in kind from anything of which animals are capable.

Free will and determinism

Many people would insist that non-human animals *do* act freely even if they can't understand the difference between right and wrong. But a more interesting claim for our purposes is the claim that human beings *can't* act freely. Hard determinists claim that all human behaviour is determined by the laws of nature, the physical states of the agent and the environmental conditions in which he finds himself.

If determinism is true, but free will is a necessary condition for acting morally, it would seem that no one *ever* acts morally. Just as you cannot reasonably be convicted of a crime if it is discovered you have a condition – kleptomania perhaps – that means you could not help yourself from doing what you did, if it is discovered that *all* our behaviour is determined, we cannot be praised or blamed for anything we do. Morality will have been shown to be an illusion.

Clearly it goes beyond the remit of this book to decide whether or not hard determinism is true. Instead we will simply assume that hard determinism is false, that morality exists and that the concepts of right and wrong have application. The justification for this is that if morality does exist then it is extremely important to think about it. If it doesn't then we may be wasting our time, but as we cannot do anything else nothing is lost.

Box 2.7 Philosophical background: Free will and determinism

There are (at least) three possible positions to adopt on the question of free will and determinism:[7]

Hard determinism: according to which all behaviour is causally determined. None of us actually chooses to do anything.

Soft determinism: according to which behaviours can be both determined *and* free.

Libertarian: according to which *some* behaviours – intentional actions – really are freely chosen and *not* causally determined at all.

Faced with this choice many people would go straight for soft determinism (SD) because it allows us to insist:

(i) everything is causally determined, which seems to be required by our scientific theories, *and* simultaneously:
(ii) to recognise as accurate the very strong intuition we all have that we are free to act as we choose.

On the other hand it would seem that a soft determinist must believe of a given behaviour – a single action – that it is *both* causally determined (such that the agent could *not* have chosen otherwise) *and* freely chosen (such that the agent *could* have chosen otherwise).

If you think this involves a logical inconsistency (and many have) then you will have to be either a hard determinist or a libertarian or find some other way of answering our question.

Ethics and religion

The very first philosophers – in Greek 'lovers of wisdom' – were distinguished by their refusal to accept supernatural explanations. They didn't believe that the explanation for *everything* would be found in God's will: they always looked first for a logical or natural explanation. This was not because they weren't religious; it seems certain that many of them were. What they didn't believe in was religion as the *only* explanation.

Over the centuries these philosophers have been shown to be right: even if God created the universe, it would seem that He chose various laws and mechanisms to govern events in that universe. It is these laws and mechanisms that are studied by science. The discovery of these laws and mechanisms enables us to predict and explain events and, often, to manipulate them according to our own will.

Many, however, have thought that there is one phenomenon that cannot possibly be explained without appeal to God: morality. Without God to ordain the absolute rules that govern morality, to make Divine judgements, and to punish wrongdoers, many believe there could be no such thing as morality.

Others, especially in recent years, have demurred. It is entirely possible, they argue, to explain morality by appeal to Darwinian evolutionary forces: altruistic behaviour,

they argue, has been selected for by nature because it facilitates survival and reproduction, especially amongst social animals like human beings.[8]

Again it is not part of the remit of this book to take a stance on the metaphysical question of whether or not morality could exist without God. It is relevant to the remit of this book, however, to point out that even if God *is* the source of morality, this does not relieve us of our responsibility to engage in moral decision-making. We need to do this for several reasons:

(i) even if we think we know God's will we need a common ground for discussion;
(ii) many believers disagree about right and wrong;
(iii) we can all be wrong even about things we hold very dear;
(iv) many people will not accept religious justifications for anything;
(v) religion has been appealed to in justification of deeds many find appalling.

In this book we will not be appealing to God or religion to justify any claim. This is wholly consistent with recognising the possibility that God exists, that He created the universe, that without him morality wouldn't exist, and that many people are motivated in their moral behaviour by belief in Him.[9]

Box 2.8 Activity: Conceptual analysis

1. If the question: 'could there be morality without God?' is a metaphysical question, which epistemological question would be associated with it?
2. If the question: 'How do we justify the claim that lying is wrong?' is an epistemological question, what is the metaphysical question associated with it?

Answers:
1. How do we know there is morality without God?
2. Is lying wrong?

Ethical and moral

Throughout the book words like 'ethics' and 'ethical, 'moral' and 'morality' appear in various forms. Strictly speaking 'morality' is properly used of first order questions and decisions, and 'ethical' of second order questions and decisions. Ethics is the systematic study of morality, which is itself constituted of the everyday decisions we make about right and wrong. Notwithstanding this, we shall not be making hard and fast distinctions between the two clusters of terms. We shall, for example, speak interchangeably of 'ethical decisions' and 'moral decisions'. This accords with our everyday use of these terms and should not, therefore, cause misunderstanding.

This completes our discussion of how the study of ethics is related to our everyday moral decision-making, and of some of the pre-suppositions and consequences of our ethical thinking.

Summary

In this chapter we have considered:

- the practical nature of ethics;
- that there is more to ethical decision-making than following rules;
- the distinction between first order moral thinking (thinking about which actions are right and wrong) and second order moral thinking (thinking about what makes an action right and wrong);
- the distinction between metaphysics (questions about what is the case) and epistemology (questions about how we can justify our claim to know what is the case);
- the existence of different theories about what makes our actions right and wrong;
- that the only actions that are morally evaluable are intentional ones, and that some people – the hard determinists – deny that there are any such actions;
- that as philosophers we can and should attempt to separate our ethical thinking from our thinking about religion.

Questions to stimulate reflection

What role is played by rules in moral decision-making?

Are moral claims such as 'lying is wrong' true or false? If so are they *always* true or false?

What makes an action morally acceptable or unacceptable?

What is the difference between first order and second order ethics?

How does metaphysics differ from epistemology?

Why is intentional action and free will of such importance to ethics?

If every action is a function of the physical states of the agent and his environment plus the laws of nature, do we really *have* free will?

Can we think about morality without thinking about religion?

Additional activities

Prepare a brief description of the moral dilemma about your friend and her hair. Ask your friends, family or fellow students what they would do and why.

Put 'moral dilemma' into a search engine and see if you can find some more moral dilemmas.

Get from the library an introduction to moral philosophy (you'll find a few suggestions below) and write a review of it.

Listen to the podcast 'An Introduction to Ethics' by the author of this book (reference below).

Listen to this video by philosopher Daniel Dennett on his views on free will: http://www.youtube.com/watch?v=Utai74HjPJE.

Use Dennett's video to stimulate a discussion on free will.

Notes

1 http://news.bbc.co.uk/1/hi/magazine/4954856.stm. A BBC website offering four moral dilemmas with poll results from readers.
2 'Ontology' has been borrowed by the computing world (and by science in general), to mean something more like standardising word usage, as in: 'we need to define ontologies for the physiology' meaning, e.g. 'when we're talking about a "hand" are we including the thumb or not?' Beware of confusing the two meanings.
3 http://plato.stanford.edu/entries/metaphysics/. Information on metaphysics from the *Stanford Encyclopedia of Philosophy.*
4 http://plato.stanford.edu/entries/epistemology/. Information on epistemology from the *Stanford Encyclopedia of Philosophy.*
5 http://ezinearticles.com/?A-Pardons-Process-for-a-Moose:-Animal-Trials&id=5954369. An 'Ezine' article about animals facing trial.
6 http://news.bbc.co.uk/1/hi/education/8096912.stm. A BBC report of research on the 'guilty look' of dogs.
7 http://www.rep.routledge.com/article/V014. The entry on free will from the *Routledge Encyclopedia of Philosophy.*
8 Ridley, M. (1997) *The Origins of Virtue.* London: Penguin Press.
9 This claim can be modified appropriately for pantheists, polytheists, etc.

Further reading and useful websites

Blackburn, S. (2003) *A Very Short Introduction to Ethics.* Oxford: Oxford University Press.
LaFolette, H. (2005) *The Oxford Handbook of Practical Ethics.* Oxford: Oxford University Press.
Pink, T. (2004) *Free Will: A Very Short Introduction.* Oxford: Oxford University Press.

http://plato.stanford.edu/. The *Stanford Encyclopedia of Philosophy* – an invaluable online resource. A bit hard-going for non-philosophers.
http://bioethics.od.nih.gov/casestudies.html. A series of bioethics resources from the US NIH.
http://www.mariannetalbot.co.uk. The author's podcasts on ethics.
http://www.philosophy.ox.ac.uk/podcasts. A series of podcasts on moral philosophy given by the author.
http://www.rep.routledge.com/about. The *Routledge Online Encyclopedia of Philosophy.*
http://www.scu.edu/ethics/practicing/decision/. A series of ethics resources from the Santa Clare University, a Jesuit University in Silicon Valley.

3 Ethics in the context of society: ethics, society and the law

Objectives

In reading this chapter you will:

- learn to distinguish ethical issues from social issues;
- reflect on the requirements for the smooth running of society;
- consider the nature of social decision-making;
- learn to distinguish the moral and the legal;
- consider the principles that govern just societies;
- briefly consider the nature of political authority.

In thinking ethically we are trying to decide which actions are right and wrong, which actions we should or shouldn't perform. But no man is an island, and the decisions we make about how to act must be made in the context of the laws of the land in which we live. Some of the most important ethical decisions, therefore, are not primarily decisions about how individuals should or shouldn't act, but rather decisions about whether a given action:

- **should or shouldn't be illegal**

Nearly every country in the world has made it illegal to clone a human being for reproductive purposes. Even if an individual believes that human cloning is morally acceptable, therefore, he cannot rationally clone a human being without taking into account the fact it is illegal and that the state will punish him if it discovers what he is doing. (We shall be considering reproductive cloning in Chapter 8.)

- **should or shouldn't be regulated by law**

In Britain and in some US states (e.g. Rhode Island, California and New Jersey) it is legal to clone a human being as far as the blastocyst stage of embryo development for the purposes of research (so-called 'therapeutic' cloning). Anyone wanting to clone a human being for such purposes, however, must jump through the myriad hoops by which such activities are regulated by the law. They will, for example, in the UK, need a licence from the Human Fertilisation and Embryology Authority (HFEA),[1] whose job it is to subject requests for licences to close examination, then they will need to

obey the various regulations governing the activity itself, then finally they will have to destroy the clone by the 14th day. (We shall be considering therapeutic cloning in Chapter 7.)

- **should or shouldn't be funded by the public purse**

In the United States, under President Bush, therapeutic cloning, though legal, could not be carried out by anybody needing public funding. It was forbidden to use money from the public purse for such activities. Only private organisations able to fund their own research were therefore able to take advantage of the legality of therapeutic cloning in the United States.

Such decisions cannot be made by ordinary individuals, they must be made by the nation-states to which individuals belong as citizens or as subjects, or by the parts of those nation-states to which the nation-state has delegated decision-making power.

Box 3.1 Philosophical background: The state of nature

In deciding the principles by which the state should be governed political philosophers talk about the 'state of nature'. This is the condition human beings were in before governments came into existence. The questions asked about the state of nature include: how did humans act? Were there any rules all human beings followed? Why did humans bring states into existence?[2]

There are different views about what life was like in the state of nature. Some, for example British Philosopher **John Locke** (who was instrumental in writing the US constitution), believed that in the state of nature human beings would be naturally sympathetic and co-operative. He also believed there'd be a natural morality which he called the 'law of nature'. This law gave us, in Locke's opinion, the right to self-defence and to own those goods with which we 'mixed our labour' (for example, if we plough some land, we become the owner of that land). Locke believed the state would come into existence because we would soon see that this would be a better way of making sure the law of nature is imposed fairly and in accordance with majority rule.

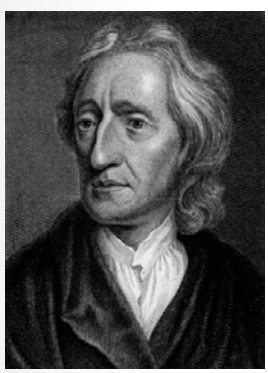

Figure 3.1 John Locke. © Photolibrary.com.

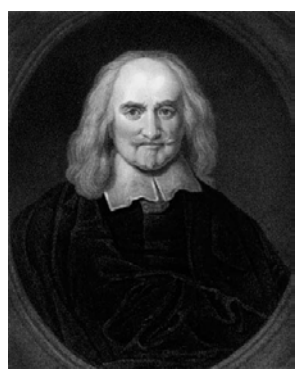

Figure 3.2 Thomas Hobbes. © Photolibrary.com.

Another British philosopher, **Thomas Hobbes**, rejected Locke's benign view of human nature. He believed that in the state of nature we would be constantly at war with each other and that life would be 'solitary, poore, nasty, brutish and short'. Hobbes believed our motivation for introducing the state would be our need to protect ourselves from each other: we would want a single leader, one strong enough to put down the insurrections, disagreements and infighting that would inevitably arise without the rule of such a leader.

In making these decisions the state sometimes has a very difficult task. In every society there are issues, often moral, that cause huge controversy. On such issues most citizens believe themselves to be right, but they disagree with each other on exactly *what* is right. Sometimes these disagreements can become very bitter. Those who believe that experimentation on animals, or abortion, is wrong, for example, have resorted to extreme violence to make their case (as we'll see in Chapter 20).

Most people who believe such things are wrong do not act so unreasonably. But when reasonable people disagree the state cannot adjudicate.[3] All it can do is to take account of that controversy in making its decisions.

The decisions made by the state or its agents all involve the allocation of important social resources such as freedom, power and public money. It is the state that decides what its citizens are free to do and not to do, who should have the authority to act on behalf of the state, and how state-sponsored activities should be funded.

Different nation-states have different decision-making processes. Some states are dictatorships. In Zimbabwe, until recently, decisions have largely been made by one man, Robert Mugabe,[4] and by those he has appointed. The same is true in North Korea.[5] Other states, including most of those in the west, are democracies in which decisions are made by those who have been elected by the people to represent them. Different democracies go about the process of decision-making in different ways. The decisions they make are sometimes very different.

Box 3.2 Activity: Group activity

There are two parts to this activity, one could be carried out as an individual activity (an essay perhaps), the other as a group discussion. Or both could be done as group discussions (perhaps at different times) or as individual activities.

Everyone in the group should imagine that they are in the state of nature (see Box 3.1) and must therefore look out for themselves and their family group. There is no law and therefore no protection from the law for individuals.

1. In small groups participants should:
   (i) try to identify the advantages and disadvantages of their situation;
   (ii) decide whether they would like to continue to live without benefit of the law or whether they'd prefer to agree to live together according to the rule of law.

Each group should appoint a spokesperson to explain the group's view and the reasoning behind it.

2. Participants should discuss the type of government they think would be best. They might choose from (some combination of):
   (i) anointing a hereditary monarchy;
   (ii) electing a representative government;
   (iii) appointing a leader for life;

(iv) appointing a short-term leader;
(v) anything else they can think of.[6]

Again each group should appoint a spokesperson to explain the group's view and the reasoning behind it.

In a democracy individuals are able to participate in the process of deciding what their government should or shouldn't do. Some participate only to the extent of voting for a representative, others don't even do this. Some do far more than this. It is clear that the more concerned one is about the decisions that the state makes (and about the laws that one will therefore have to obey) the more one should engage actively in the process of making these decisions.

In order to participate effectively in such decision-making, individuals must be informed about the decisions to be made, must have reflected on the decisions they think *should* be made and, ideally, will have put their reflections to the test by engaging in debate with those whose views differ. Such debates provide an opportunity for those involved to attempt to achieve a 'reflective equilibrium' between their different beliefs.[7] This can be achieved by listening to others' arguments and taking good arguments into account in their own thinking.

Democracies, ideally, will try to provide forums to help citizens participate in such activities, expect schools to prepare citizens for participation, and perhaps provide incentives for citizens to participate.[8]

As biotechnology advances and makes it possible for us to engage in many activities that have previously been impossible, it is not just individuals who must decide for themselves whether or not the activities made possible are morally permissible, required or forbidden: states must also make such decisions. The decisions made by states will, of course, interact importantly with the decisions of individuals.

Morality and the law of the land

That the law of the land is quite different from what many have called the 'moral law' can be seen in the fact that there are actions that are immoral but not illegal and vice versa.

Lying, for example, is not illegal, though most people would agree that lying is – usually – morally wrong. There are types of lie, of course, that *are* illegal (fraud is usually against the law and fraud is a type of lying), but no state would pass a law forbidding you from falsely telling your friend you think she looks nice.

Box 3.3 Activity: Personal reflection

Why do you think no (sensible) state would pass a law against lying to your friend about her hair?

Reflect on the different ways we punish those who have broken the law and those who have acted immorally. Why should there be such different sorts of punishment?

There are also actions that are illegal but not obviously immoral. In Britain it is illegal to drive on the right, for example, in the United States it is illegal to drive on the left. Morality, however, says nothing about the side of the road on which one should drive. At least it doesn't until a law is passed, then it might be argued that as morality *would* say 'obey the law', then morality also says 'drive on the left when in Britain and on the right when in the United States'. Nevertheless it is easy to see that here there is an arbitrary element to the law: this law is needed to co-ordinate behaviour not to enforce morality.

Other laws, for example 'do not kill', seem to have a clear moral element. If human beings have the right to life then morality would say 'you must not kill', and the law of the land merely gives state expression to the moral requirement. In doing so the state gives itself (or its agents) the power to punish anyone who kills another human being. In deciding whether or not to kill someone, an individual who is not dissuaded by the immorality of doing so, might be dissuaded by the illegality of it. If not, and he is caught, he will be punished.

Another indication that the law of the land is not the same as the moral law is given in the fact that morality can seem to require the making of, or the abolition of, a law. Many people in the United States, for example, believe that the death penalty is immoral. How could a law be immoral if there was no more to morality than the law of the land? In Britain many people believe that morality demands that a law should be passed permitting assisted dying. How could morality demand a law that doesn't exist if there was no more to morality than the law?

Box 3.4 Factual information: Civil disobedience

Civil disobedience involves disobeying the law openly and with every intention of taking due punishment in the hope of changing the law. Mahatma Ghandi famously used civil disobedience in his dealings with the British Empire. He proposed the following rules for those engaged in campaigns of civil disobedience:[9]

1. harbour no anger
2. suffer the anger of the opponent
3. never retaliate to assaults or punishment; but do not submit, out of fear of punishment or assault, to an order given in anger
4. voluntarily submit to arrest or confiscation of your own property
5. if you are a trustee of property, defend that property (non-violently) from confiscation with your life
6. do not curse or swear

7. do not insult the opponent
8. neither salute nor insult the flag of your opponent or your opponent's leaders
9. if anyone attempts to insult or assault your opponent, defend your opponent (non-violently) with your life
10. as a prisoner, behave courteously and obey prison regulations (except any that are contrary to self-respect)
11. as a prisoner, do not ask for special favourable treatment
12. as a prisoner, do not fast in an attempt to gain conveniences whose deprivation does not involve any injury to your self-respect
13. joyfully obey the orders of the leaders of the civil disobedience action
14. do not pick and choose amongst the orders you obey; if you find the action as a whole improper or immoral, sever your connection with the action entirely
15. do not make your participation conditional on your comrades taking care of your dependents while you are engaging in the campaign or are in prison; do not expect them to provide such support
16. do not become a cause of communal quarrels
17. do not take sides in such quarrels, but assist only that party which is demonstrably in the right; in the case of inter-religious conflict, give your life to protect (non-violently) those in danger on either side
18. avoid occasions that may give rise to communal quarrels
19. do not take part in processions that would wound the religious sensibilities of any community.

The making of the law, as an activity, is itself governed by morality. There are three important moral considerations that must be taken into account in every decision the state makes:

- public welfare;
- individual rights;
- justice between individuals.

As we work through this book we will see that it can be hugely difficult to balance these considerations against each other: just as the values that guide the conduct of individuals conflict, so the values that guide the decision-making of states conflict: hard decisions cannot be avoided.

Box 3.5 Activity: Creative writing

It is 2020. Scientists have discovered a procedure that used once will reliably add 10 healthy years to our lives. Used a second time it produces 10 extra years, but not healthy ones. Unfortunately, each use of the procedure is very costly. But the news is out: people everywhere badly want to be able to use the procedure once to gain those extra 10 years.

Write a short piece (about 500 words) describing the thoughts of a person (the President? The Prime Minister?) who will be involved in making the government's final decision.

We will think more about this in Chapter 12.

This completes our discussion of ethics in the context of society, and of the relation between the 'moral law' and the laws of the land.

Summary

In this chapter we have considered:

- that many ethical decisions must be made by governments rather than individuals;
- that individual ethical decision-making always takes place in the context of a society governed by laws that will have to be taken into account;
- that in a democracy individuals are able to contribute to the governmental decision-making process;
- that advances in biotechnology will generate many moral decisions that must be addressed by governments as well as individuals;
- that the laws of the land are distinct from the rules of morality, though ideally they are constrained by these rules;
- that in making moral decisions good governments are constrained by concern for welfare, rights and justice.

Questions to stimulate reflection

What is the difference between an 'ethical issue' and a 'social issue'?

How are the rules that are the laws of the land related to the rules of morality?

What is the 'state of nature' and why is it important to political philosophers?
Are we morally obliged to obey the law? Why?

Is rebellion against the law ever justified? If so, when? What form might this rebellion take if it is to be morally acceptable?

What are the principles that guide decision-making in the context of the state?

Should citizens and subjects of a democracy contribute to the decision-making process? Why?

Additional activities

Put 'Hart–Fuller debate' into a search engine, and find out about this famous debate about the extent to which morality and the law go together.

With a partner, role-play a discussion between John Locke and Thomas Hobbes on what life would be like in the state of nature.

Access this website: http://www.wgp.cf.ac.uk/CitizensJury.htm and learn about the Citizens' Jury on Designer Babies conducted by the Wales Gene Park with the University of Glamorgan and Techniquest.

Consider setting up a citizens' jury of your own on a social issue generated by biotechnology.

Access this website: http://webarchive.nationalarchives.gov.uk/20100824180635/http://yourfreedom.hmg.gov.uk/ and learn about a British government's attempt to discover which laws British citizens believe should be scrapped.

Conduct an opinion poll amongst your family, friends and fellow students on the laws that local people believe should be repealed.

Access this website: http://www.pbs.org/wnet/religionandethics/episodes/march-20–2009/civil-disobedience/2473/ and decide whether or not you think Tim DeChristopher should go to jail.

Can you find any famous cases of civil disobedience in your country?

Notes

1 http://www.hfea.gov.uk. The website of the HFEA.
2 http://www.open2.net/historyandthearts/philosophy_ethics/state_of_nature_p.html. The state of nature from the BBC with the Open University.
3 http://www.procon.org/. A US website offering the pros and cons on many controversial issues. The website: http://www.sac.edu/students/library/nealley/websites/controversial.htm contains many useful resources on controversial issues.
4 http://www.guardian.co.uk/world/robert-mugabe. Articles on Robert Mugabe from the UK's *Guardian* newspaper.
5 http://www.bbc.co.uk/news/world-asia-pacific-15256929. A BBC Country Profile on North Korea.
6 http://news.bbc.co.uk/cbbcnews/hi/find_out/guides/world/united_nations/types_of_government/newsid_2151000/2151570.stm. A BBC website on different types of government.
7 http://philosophy.hku.hk/think/value/reflect.php. An OpenCourseWare website on the type of critical thinking known as striving for 'reflective equilibrium'.
8 http://www.ncl.ac.uk/peals/dialogues/juries.htm. A website from PEALS (Policy, Ethics and the Life Sciences) describing its 'Citizens' Jury' project.
9 Gandhi, M.K. (23 February 1930) 'Some Rules of Satyagraha'. Young India (Navajivan) (*The Collected Works of Mahatma Gandhi*, vol. 48, p. 340).

Further reading and useful websites

Boucher, D. and Kelly, P. (eds.) (2009) *Political Thinkers from Socrates to the Present*. Oxford: Oxford University Press.

Haldane, J. (2009) *Practical Philosophy: Ethics, Society and Culture*. St Andrews: St Andrews Studies in Philosophy and Public Affairs, Imprint Academic.

Miller, D. (2003) *Political Philosophy: A Very Short Introduction*. Oxford: Oxford University Press.

http://www.citizen.org.uk/. The website of the UK's Institute for Citizenship offering plenty of resources and activities to promote citizenship.

http://www.changemakers.org.uk/. A website aimed at encouraging young people to engage in active citizenship.

http://www.youtube.com/watch?v=nmVtdFLzlvI. A lecture on the history of political philosophy by John Rawls, a highly influential contemporary political philosopher.

4 Ethical theories: virtue, duty and happiness

Objectives

In reading this chapter you will:

- reflect on the metaphysics and epistemology of morality;
- learn about Aristotle and virtue ethics;
- reflect on the advantages and disadvantages of virtue ethics;
- acquire an understanding of Immanuel Kant and deontology;
- reflect on the advantages and disadvantages of deontology;
- reflect on John Stuart Mill and utilitarianism;
- reflect on the advantages and disadvantages of utilitarianism;
- consider how to balance the three theories against each other in approaching moral dilemmas.

If we were to consider every ethical theory, this book would be too long. Instead we shall consider the three theories that command most followers. These are:

Virtue Theory: according to which the right action is the action that would be performed by a virtuous person.

Deontology: according to which the right action is the action that is performed out of duty (or 'reverence for the moral law').

Utilitarianism: according to which the right action is the one that would produce the greatest happiness of the greatest number.

Each of these theories postulates an account of the metaphysics of morality (what makes an action morally right or wrong) and the epistemology of morality (an account of how we know an action is morally right or wrong).

As you read about these theories and as, throughout the book, you apply them to specific problems, you will probably find yourself drawn to first one, then the other. Each theory has strengths and weaknesses which must be balanced against each other as we decide how to act.

We shall start by considering the theory of greatest longevity, the theory with its origins in the writings of Aristotle, one of the greatest philosophers of all time.