Human Cloning and Moral Status

Christopher Alexander Pynes
The members of the Committee approve the dissertation of Christopher Alexander Pynes defended on 19 June 2003.

Michael Ruse
Professor Directing Dissertation

Michael Meredith
Outside Committee Member

Peter Dalton
Committee Member

The Office of Graduate Studies has verified and approved the above named committee members.
To my mother, and for all mothers: past, present, and future.
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ABSTRACT

The participants in the human cloning debate are as varied as the interests they support: Catholic priests, agnostic biologists, atheistic philosophers, and political leaders have all spoken out since the announcement of Dolly the cloned sheep's birth in February 1997. Currently, many of the participants are talking about different issues, working with different philosophical assumptions, relying on false or misunderstood data, and generally talking past one another. For example, how does the opponent of human cloning who is concerned with issues like “playing God,” human dignity, or moral repugnance converse with a proponent who believes cloning is really about the reproductive rights of individuals? In this dissertation I take on the task of reconstructing and evaluating the arguments for and against human cloning, and finally argue that the disagreement is really about how to define “moral status.” I then provide a definition of moral status that would enable for public discourse on this topic to move in a direction that allows for responsible public policy making in the area of biomedical research.

Chapter I deals with clarifying the biological and scientific facts relevant to the human cloning debate. I begin with an introduction about the nature of biological advancement with DNA and trace the biological and philosophical breakthroughs that have given rise to the current technology, which allows for Nuclear Somatic Cell Transplantation, the method developed by Ian Wilmut and his team to create Dolly. I then describe the different meanings that cloning can have in the biological sense. Concluding the chapter I argue for a definition of cloning that is topic neutral with respect to scientific methods and ethical theories.

Chapter II evaluates the common moral theories that are used in philosophical arguments against human cloning: Consequentialism (Utilitarianism), Deontology (Kantianism), and Virtue Theory (Aristotelianism). The popular opinion is that
deontologists would be against human cloning, consequentialists would be for human cloning, and virtue theory would be uninformative in the debate. What I show is that contrary to the popular opinion there are opponents and proponents in each of these moral camps, presenting arguments for and against human cloning. Their arguments are not limited to just the common "means as end" and "harm" debates, but include issues of right, non-identity, and moral status.

Chapter III concerns itself with a set of objections to human cloning that comes from the religious ethicists. The common belief is that they are the opponents while the secular ethicists are proponents of human cloning. I illustrate the varied argumentative structure in the religious literature, and I provide the better religious objections to human cloning. In doing so, I show that there is a common component between the religious objections and the secular objections to human cloning; and if understood properly, a compelling objection can be offered against human cloning that is sensitive to religious concerns but not grounded in religious assumptions.

Chapter IV deals with the important legal argument in the bioethics debates. The proponents of human cloning generally subsume the cloning questions under the rubric of reproductive rights. In the United States there is a legal tradition from Griswold v. Connecticut (1965) to Roe v. Wade (1973) that concerns reproductive rights issues that are relevant to the human cloning debate. In this chapter, I argue that one of the best defenses of human cloning is when human cloning is understood as a reproductive rights issue, but explaining and defending this right is problematic. Some opponents, however, do not accept the premise that human cloning is a reproductive right, and unless this premise is granted, this defense loses much of its force.

Chapter V attempts to answer the question: “What is moral status?” This is one constant assumption that is accepted without argumentation by most of the ethical argument about human cloning. Answers to many of the biomedical issues such as stem cell research, abortion, and human cloning all hinges on what concept of moral status one adopts. In this last chapter, I characterize some of the classic attempts to define moral status. I then show that even though we cannot give necessary and sufficient conditions for moral status simpliciter, we can give some necessary and some
sufficient conditions for moral status that are relevant to biomedical issues. If we accept these conditions in a manner that is topic neutral with respect to the moral theories, then I argue that human cloning is permissible in some cases. The same can be said for abortion, stem cell research, and euthanasia. Although this partial definition is not a commonly accepted idea of what moral status is, it can be used to inform public policy making with respect to human cloning laws. Finally, I conclude that a complete ban on human cloning both research and reproductive is unwarranted at this time.
INTRODUCTION

The announcement of Dolly’s, the cloned sheep’s birth, on 24 February 1997 forever changed the way humans think, act, and decide basic issues concerning medical advancements for treating both the very young (embryos), the sick, the aged, and now the possible person or clone. It was this revolutionary achievement of biology that Dr. Ian Wilmut and his colleague, Keith Campbell, both of the Roslin Institute near Edinburgh, Scotland that created a paradigm shift in common thought about what humans are, how humans should be created, and whether or not there is something essential about the way humans reproduce their species—sexuality itself is an important part of the public debate about cloning—and this happened long before cloning’s technical achievements were known.

There are several philosophical questions that result from Dr. Wilmut’s accomplishments, and some of these questions are what I shall attempt to clarify and answer in the course of this work, ultimately trying to give a solution to the questions that I claim to be the core issues of the intense moral debates that occur in the sphere of bioethics as they relate to human cloning. The major philosophical issues that the political and social majority want explained are the moral issues. When, where, and by what means is human cloning ever morally permissible are the moral question that come directly to mind after hearing of Dolly’s birth. The scientific questions are just as interesting: “Can \textit{Homo Sapiens} be cloned?” But the one question that looms largest is: “Ought cloning to be done with people?” Some of the other philosophical questions

\footnote{Clearly the issues of stem cell research, abortion, and euthanasia are all a part of the general bioethics debate, and could be lumped in with the cloning debate. Ultimately I will I claim that one’s views about cloning and other moral matters like abortion will run parallel, and what we will see is that the cloning debate is not a new topic, but a version of an old topic: rights attribution or the quest for determining what things have full moral status and deserve moral considerations and when that happens.}
are interesting, but less important on a large social scale. These range from issues of identity to claims about genetic essentialism. In the remainder of this short introduction I will briefly describe the participants of the cloning debate and show that there is much more at stake here than whether or not someone can have a child or which moral theory or political system is better. Because the participants of any debate determine how one can proceed within the debate, it is important to make sure that each of the following groups are represented: science, religion, finance, government, and individuals. Moreover, since my goal here is to make a philosophical contribution that is practical, sometimes called applied ethics, it will be good to keep the different participants of the cloning debate in mind when setting up the problem and proposing general solutions. At the end of this introduction I will lay out the structure of the rest of the dissertation.

**Where Human Cloning Debate is Occurring**

Interestingly, the intense human cloning debate has been a relatively American phenomenon; England and many other countries have had legal bans on human cloning for several years. This is not to say that the rest of the world has not gotten involved in the discussion, or even that it is not intense elsewhere, but just to say that America is the place where uproar—of the political, religious, and moral form—concerning human cloning and other types of biomedical research, like those involving stem cells and genetically modified food, has been loudest.³ There are several reasons for this American obsession with all things reproductive and moral: The United States is the last great superpower, and it is where most of the corporate, political, and university money that supports biotechnology research is funded, which generates such medical advances as cloning, stem cell research, *in vitro* fertilization, a “better” tomato, and the like. At least part of the explanation has to come from the long religious traditions that

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² I use the term ‘people’ here as a folk notion to refer to human beings. Much of the abortion debate centers on determining what a person is and trying to decide if a person has rights. In my view, person as a morally rich concept, like it is used in the abortion debate, goes beyond shorthand for human being, and if one wants to talk of the morally rich concept of person, it is better to not confuse terms or beg the question about species membership and talk in terms of moral status.

³ The French, however, have been the loudest opponent to genetically modified foods. Showing that cloning is really a sub issue in the biotechnology debates.
dominate US politics with respect to reproductive issues like abortion, but there is more to the debate than just this pervasive moral majority. America is also one of the more religious countries in the world, and those individuals of faith have a Constitutionally protected right to speak out and freely voice their opinion on subjects like cloning and abortion whether rightly or wrongly given the moral situation; for free speech is one of our most sacrosanct liberties, unquestionably American. So, this is part of the reason there has been so much debate—if one wants to call it debate—in the United States over medical advancements or procedures like human cloning, stem cell research, and abortion. Clearly it seems that the free voicing of religious rhetoric guised in political concern is far better than the alternative of a state mandated religious view. Nevertheless, religious concerns are a major factor in the political and philosophical debates, and they must be heard and dealt with accordingly.

Another interesting fact to note is that the discover of somatic cell nuclear transfer (SCNT), what is generally meant by human cloning in most of the current debate, was produced by a (non-profit) Scottish Institute that was funded by a for profit, British corporation PPL Therapeutics. This suggests, to some at least, that the cloning debate has many facets beyond the purely ethical. Apart from the religious and secular ethicists involved in US and international cloning policy, there will be financial concerns, international relations, and other legal issues that any well-formed applied, ethical position about cloning in particular and biotechnology more generally has to face. For this reason, a productive, relevant cloning policy in any particular country, especially the US, is going to be difficult to achieve, not to mention an international policy if that is even possible. Do not think that there are no believers in the need for an international human cloning policy in the form of an out right ban, for there are—Leon Kass, the Chair of the President’s Council of Bioethics, is just one of many such proponents of a ban. The problem is that the suggested policies are generally a call for a strict, complete ban on both cloning research as well as the potential practice of human cloning. This leaves us with a multifarious and multifaceted policy problem to contend with, and it is not going to get easier as advanced biotechnology develops. For
the more biology we learn and the more cures that are claimed possible from the research, the greater the demand for therapeutic cloning research will become, whether the demand be in the US, Britain, or China.

**Participants in the Human Cloning Debate**

There are at least five general groups interested in the outcome of cloning policies that will make creating an informed, usable cloning policy difficult: science, religion, finance, politics (domestic and international), and individuals. It is the interplay of the values and norms of these five groups that will make crafting a cloning policy a difficult and daunting task. Will it be more difficult than other international policies that have domestic impact? Perhaps not, but there are very few topics that fuel animosity and disagreement across the world than the treatment (or mistreatment) of human eggs, embryos, fetuses, and children. And since cloning touches on all four of these as well as having philosophical implications for other beliefs, human cloning is not immune from the values and norms that stem from debates that concern those topics; abortion, infanticide, assisted reproduction, adoption, the doctrine of double effect, and so on. The list of moral commitments and concerns seems to be as long as the list of participants involved in the debate; it is my accepted task to try to disentangle this web of beliefs and provide a principled defense of human cloning, for both research and reproduction.

One of the aims of this dissertation is to get clear on the values and norms that are being appealed to, either explicitly or implicitly, in the cloning debate by the various participants. The reason is that mammalian and specifically human cloning is now a reality, and no matter how much one may or may not like or approve of human cloning, individuals that run countries and make decisions about funding have to find a

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4 This of course presupposes that the right answer is not a complete ban on both the research aspects of all kinds of cloning as well as a complete ban on human reproductive cloning. For the first kind of ban seems *prima facie* to be too broad a ban, and the second has not been justified as a viable option given certain explanations of the human cloning debate; as a reproductive rights issues.

5 *The Washington Post* reports that infertility researcher Dr. Panos Zavos of a Kentucky-based human cloning team, plans to birth a human clone by 2003. Dr. Zavos claims that the only problems are
way to deal with the research requests that occur and the demands for the cures for
which cloning research and other biotechnology advances like stem cell research may
lead. The social and political pressure from celebrities like Christopher Reeve is
tremendous and should not be discounted, especially since much medical good is
coming from such research. Some human cloning opponents call this drive for medical
cures an instantiation of the technological imperative and it comes in many forms from
many opponents to cloning, and I shall evaluate some of the arguments that employ it as
a premise in Chapter II. But, in the remainder of this introduction I shall briefly present
the groups involved in the debate and why there is a conflict between their particular
values and norms. It is the solutions to these problems generated from different values
and norms that will ultimately decide how the human cloning debate proceeds; for it
seems that how one understands the debate can influence how one answers the crucial
moral questions under a particular guise of the debate. I plan to make it clear from
where the participants are arguing in order to understand, evaluate, and finally
compromise on a reasonable human cloning position and policy. Some of the
participants may find my solutions to the policy issue too broad, but we shall see if they
are right in Chapter V.

Science and Scientists

One of the nice things about science is that it really is an international
community. This is to say that results of a particular discovery can be tested and
supported or debunked by a large number of individuals around the world relatively
quickly and independently of any social or political agenda. Such widespread
cooperation or verification in any group rarely occurs, but there is a unique check and
balance system within science, which is free of political bonds, geographic boarders,
time zones, and language skills. In fact, the scientific community in many ways has
their own language of science for which they speak, and it is that language of truth and
advancement that binds many of them together. And most importantly, since cloning
does not occur without the scientist, she will have to have a seat at the debating table

logistical, not scientific. David Brown, “Human Clone’s Birth Predicted,” The Washington Post,
when it comes time to determine what kinds of political policies will be enacted, which ultimately fund or curtail her research efforts.

Scientists do a fairly good job of creating research review boards, and they have some checks and balances on how research is conducted on human subjects, but this does not mean that scientists have all the right stuff for making the kind of decisions that need to be made when ethical and political training are required. One of science’s strengths is its general absence of political motivation, but this strength leads to a weakness as well, which is a general lack of ethical and political training of scientists. So, science and scientists alone are not the only members of the human cloning debate, which leads me to what many would consider the moral voice of most of the world, especially the United State—religion.

**Religion and the Faithful**

In the United States of America, to allow religious influence on issues of public policy matters is to violate the “Establishment Clause” of the First Amendment of the Constitution some would claim, if not in actual fact, then at least in spirit. But this issue of religion in public policy is much more complicated than a simple hand wave to the US Constitution. Religion in US politics has been a mainstay for all 200 plus years of the life of the US, and there are those who think the moral knowledge and ethics of our country should be determined by, and can only occur in the context of religious training, religious scriptures, and religious revelation. This coupled with the fact that most of the political leaders old and new are religious believers of one form or another, means that religion will have a place at the human cloning policy debate table. So whether one likes it or not understanding religious views, values, and norms will be essential in effective dialogue as to what and how to deal with human cloning issues. So even though cloning generates philosophical issues, it is the religious and political issues that

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Clearly there are cases where scientists are working hard to make their political group look better than another; the classic example is the Soviet Union and the United States of America during the cold war. But since the cold war ended, there is a much more international feel to science in general when it comes
have to be understood first, and in a philosophical manner, before we can determine how to proceed on any level with actual human cloning or cloning policy.

There are some trouble spots that will emerge in a pluralistic society when it comes to religious beliefs and public policy, and no resolution will be forthcoming if we remain in the realm of the religious. This is to say that religious beliefs are quite diverse, and in some cases contradictory. And because the human cloning debate is closely linked to the abortion and stem cell debates, there will be problems satisfying believers of all faiths with one cloning policy. For starters, religious traditions cannot agree about the status of human embryos nor do they agree on the point of human sexual relations; both of these issues will play an important role in the cloning debate for both opponents and proponents of cloning research and reproductive cloning alike. Now it is not the fault of the religious that they cannot decide on the moral status of a human embryo, for it is a difficult question to answer, but relying on sacred texts and priestly commands will just not do, no matter how well intentioned they are. We need to have a way to determine moral status in cases of human clones, human embryos, and human stem cells, and this is what I shall provide in the final chapter of this dissertation.

Not that religion should be condemned for not answering the tough questions, but there is an additional worry to be had with religion: can science and religion work together? The two have been at odds for the last 350 years and the religious condemnations of scientists are well known. But there is the converse worry about science not being willing or able to understand some basic religious principles. For example, a Catholic doctrine that tries to distinguish between intended effects and effects that are merely foreseen, commonly called the doctrine of double effect, is not something that has the force of a scientific law, and thus scientists resist it as a moral basis for a decision making procedure. Whether the doctrine of double effect is a workable moral principle or not is not for the scientists to determine, this is the job for the moral philosophers, and I shall take up the doctrine of double effect in the chapter on religious argument and human cloning. Nevertheless, it is this chasm between science and religion that is going to have to be bridged if good public policy is going to
be created. This is to say that there will have to be some give and take by both the religious and scientific communities for a cloning policy to really work, and I claim it is the job of the philosopher to perform just such a bridging task. Scientists want to do research and the religious want to believe, and there needs to be room for both at the cloning table. The worry I have with the current state of the debate is that religion has all the seats at the table and philosophers and scientists have none. This can easily be seen with President Bush’s new Council on Bioethics that is comprised of all but one religious member and led by Leon Kass. The reason everyone needs to be involved in the crafting of public policy is that I do not see an outright ban on human cloning working on either a national or international level, but neither do I think “anything goes” when science is involved is the right policy either. We need a living policy that can be molded as scientific understanding progresses and as moral thinking gets clearer with respect to the difficult issues—this is why I was a fan of the NBAC’s sunset clause that suggested a five-year temporary ban on cloning instead of an outright ban.

**Politics and Politicians**

Politics is a difficult matter to sort out on a national stage, much less on an international stage, and let us make no mistake, human cloning politics is both a national and international matter. The biggest problem for any US policy regulating human cloning and other biotechnology issues is that the policy does not stretch beyond US territories, and we know that science is in some sense immune from international boarders. So, what can be done on both a national in international level?

It is clear that there will not be a complete international ban on cloning research or human cloning, for if we have learned anything from past sanctions on countries that violate international laws, they are not that effective as long as the country in question has some natural resource or information that the rest of the world finds valuable. Being a place where scientific research can be conducted that could bring great medical benefits is one such resource or is a potential resource for some countries. Second, if
there is an international ban on human cloning sanctioned by the United Nations, it is not necessarily binding on the US, but I will not go into these details for they are beyond the scope of this work. Nevertheless, there are problems with international laws and bans, which seems to make an internationally enforceable cloning policy impossible. This claim, however, is just what the opponent of cloning is going to latch on to when arguing that there will be bad effects to cloning research. Why? There are those that will not follow the rules no matter what the rules are or how reasonable the rules seem to be to the rest of us, and because of these potential bad effects, we have to ban human cloning and other cloning research. The only relevant response to think kind of argument is that everything science creates has the potential to be abused, and thus, we cannot ban everything, so we should try as best we can to have reasonable policy whenever we can instead of just banning everything that might have some bad consequences.

So, given the problems of international law, should I then restrict my comments on US policy decisions concerning cloning? It seems that I could, but I shall provide a general understanding of the cloning debate that will allow many different legal systems that are derivative of the US’s understand the arguments for and against cloning and the reasons given—this is all I can do for the political side of the debate. There are, however, some subtle and sophisticated legal arguments that could be made in support of human cloning given US law, and I do plan to provide them on behalf of the proponent of cloning research and reproductive cloning in Chapter IV.

Other than the international problem for a human cloning policy, there are two additional points to be made about governments and human cloning policy. First, most politicians have humanities, business, or legal backgrounds. This is to say that very few political leaders are or were scientist much less biologists. Thus, political leaders may not have the scientific vocabulary and understanding to know what is really possible or what the likely consequences of cloning technology may or may not be. So,

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7 The general idea is that the US has one supreme law of the land: The US Constitution. And just because there is some United Nations ban on human cloning does not mean that we have to follow such a ban unless we agreed to it in a treaty or some other legislative way.
government leaders are in the dark as to the facts of cloning research and human cloning in the same way that scientists are in the dark about political and ethical concerns; and it seems to be an overriding theme that politicians make decisions that are ill-informed, hasty, ineffective, and counterproductive in both the long and short term. It would be nice to try to achieve a cloning policy that avoids these kinds of mistakes, and in an effort to try to avoid mistakes generated from bad information, I shall have in the first chapter a discussion of the history and scientific facts concerning cloning research in general.

Second, the US government thinks of itself in many respects as the controller of the purse strings of science and education, and in many ways it is, since most State Universities are funded through State Legislatures. Now it is true that much of scientific research is funded by government sources, but there is a fair amount of corporate money involved in the business of science, and just because the government does not want to fund human cloning research does not mean that funding will not be found and human cloning research not continue. For in a capitalistic society like the US if there is demand, supply will follow to fill that void, and so if there is a desire for human cloning research, whether for reproductive purposes or for medical cures, it will happen, no matter the financial cost. And again the opponents of cloning research may balk, for this reason is the same reason they give for demanding human cloning research not happen—the bad consequences are unavoidable. This is not a evaluative claim, but an empirical question of fact, and I do not want to predicate my defense of human cloning on the fact that since it is going to happen, we should embrace it, for that would be fallacious and no defense at all of what I take to be legitimate science. There are those, however, that take this very line of argumentation, the idea of inevitability of bad consequences of cloning research, like manifest destiny in the early formation of the US, which I shall explain and evaluate below. This last point about government money leads us into the fourth group involved in the cloning debate—finance.
Finance and Wall Street

As we know government plays and pays a big role in scientific discoveries. In the case of reproductive technology there is more than government money footing the bill, there is private, corporate, and philanthropic money to be spent. *In vitro* fertilization (IVF) treatments are successful roughly 25% of the time and cost anywhere from six to ten thousand dollars an attempt, and it is generally not covered by insurance because it is not a “necessary” procedure, but people continue to foot the bill so that they can have children. Why?

People want to have children, their own biologically connected progeny, and it seems that cost is not a barrier to the satisfaction of this desire, which some claim is a normal, healthy, good, desire for someone to have. Thus, as long as people want to procreate or just create babies that are genetically linked to them, there will be a market for alternative methods for conception when the old fashioned or natural way or procreation does not work. One of the arguments given most often for these alternative methods of procreation is that individuals and couples have reproductive rights and freedom in the US, but more on this legal argument below in Chapter IV.

Moreover, as soon as xenotransplantation works, that too will be a multi billion-dollar industry that the moral argument may not be effective in curtailing. After one’s arteries are clogged from eating pigs, perhaps it will be possible to transplant a pig’s heart to keep the patient alive. This is only one of the possibilities other than human cloning that financial pressure will push to achieve and implement. And we know that at least in the US a vacuum for demand will soon be filled with a supply. So, in the US and perhaps other democratic, capitalistic societies both the financial and technological imperatives outweigh Kant’s Categorical Imperative or any other moral principle that may be posited. For if human cloning is to be accepted as a legitimate, acceptable practice for human reproduction, it will be so on the heels of financial gain and technological progress. Why? It is clear that human cloning will be for the benefit of the individual to produce progeny, which is my fifth and final group that is involved in the human cloning debate.
The Individual

The individual is regarded as something special in the United States. Not only does the individual have certain “God given” rights that are unalienable, but he or she also has the freedom to exercise these rights given certain constraints. And a large portion of the biotechnology debates whether about human cloning, stem cell research, gene therapy, abortion, euthanasia, or xenotransplantation, are right or wrong, permissible or impermissible, comes down to what rights or liberties the individual possesses. What are rights and liberties? How are they granted? When can one exercise their rights and liberties? And is it the commitment to rights that will in some sense fly in the face of the moral arguments against human cloning? What right does one have as a parent? These are all very important philosophical questions that have to be answered or settled collectively if there is going to be any successful dialogue in the biotech age.

It is often said that the individual is what makes America great, and few Americans would disagree. But the religious opponents to human cloning would claim that even though the individual made America great, you cannot clone individuals, for it will eliminate their dignity and humanity and hence make them less than great for they would no longer be an individual. Can the rights of the individual be weighed against the values and norms of society as a sufficient defense for human cloning as a reproductive right? We shall see. How does one engender a cloning policy that is informed and relevant? Answering these questions and clearing up the cloning debate is the task that I set for myself.

So, the five components of the cloning debate, science, religion, politics, finance, and the individual, are not as separate from one another as we might have first thought, and the reasons given for one position or another may be conflicted. This is to say that there are politicians that are religious, businesspersons. Does the female senator from California use the argument for reproductive rights to outweigh her business decisions or her faith? These are the issues that have to be resolved, for it is clear that there is a possible fortune to be made from the success of human cloning research, and that is why companies like PPL Pharmaceuticals are in business. But
more than money, beliefs, families, and faiths, may all hang in the balance. This is to say that the way we conceive of ourselves, our families, and the purpose of the individual may all change thanks to cloning technology. So in a way, this one scientific success has made the questions of philosophy relevant in a way that they have not been in many years. This is why it is so important to get straight on what the relevant issues are and how we might deal with them in a reasoned way.

Chapter Summaries

To conclude this introduction I shall give a brief description of what the reader can expect in each of the following chapters. Chapter I is a history of the biological questions that needed to be answered in order for cloning research to be done successfully and human cloning to become a reality. I begin with the discovery of DNA and move through some of the major technical and philosophical advancements that eventually lead to the feasibility of mammalian cloning. Then I propose a working definition of what exactly cloning is and show how all the difference senses of cloning can be subsumed under my cloning definition. The remainder of the chapter raises many and settles some of the interesting biological, philosophical, religious, political, and classificatory questions associated with human cloning and cloning research.

In Chapter II I explain three traditional philosophical theories that give rise to moral principles, which are ultimately used to determine the permissibility or impermissibility of human cloning is a secular manner. There are several ethical traditions that have reasons to eschew cloning, and I shall review the arguments, paying special attention to try to find common ground between all the theories so that it will help engender fruitful dialogue. Some of the traditions that will be explained and evaluated are: deontology, utilitarianism or consequentialism, and virtue ethics. I will deal with a number of the philosophical objections to human cloning. For example: harm based argument, uniqueness argument, and potentiality arguments. Most of the arguments against human cloning are shown to be lacking in some way or other. Finally, I argue that all of the philosophical ethical systems are really disagreeing about one major moral concept, moral status, and until this concept is explained in a way that
is philosophically useful, there will not be much advancement in the human cloning debate in particular and in bioethics in general.

Chapter III focuses on the religious argument against cloning. Since religious leaders have spoken out mightily and have demanded to be part of the bioethics debate in general and the cloning debate particularly, it is important to first understand their argument and second, to understand where there is common ground on which debate can occur. There have been some response to the religious argument, but most scientists and philosophers think of the religious argument as “silly talk,” and while I agree with most scientists about the ultimate justification behind the religious principles—God—there may be, and in fact is, a lot that can be learned from understanding the religious arguments for and against cloning. I shall, however, provide detailed analysis and criticism of the religious views as I go along. In the end, I show that there is something valuable in the religious traditions that can be used in guiding cloning policy, but the religious arguments do not warrant a ban cloning research outright. Again the major deficit in the religious arguments is a lack of determining a definition of moral status.

In Chapter IV I present legal argument for and against human cloning. Much of the human cloning debate in the United States focuses on reproductive rights, and I shall try to clear up that debate and present the best argument for rights based defenses of cloning. This will involve the use of legal argument for a defense of human cloning that springs from two Supreme Court decisions: Roe vs. Wade and Griswold vs. Connecticut. Part of the defense will rest on a method of judicial review and legal reasoning I name “Legal Logicism.” One does not need to accept my Legal Logicism to see understand the reasoning provided in support of human cloning in this chapter. Additionally, I look into several constitutional issues surrounding research and reproductive rights.

In Chapter V, the concluding chapter, I shall argue that any bioethical debate whether about cloning, stem cell research, or abortion will hinge on the concept of “moral status.” If there is going to be a useful, productive, relevant policy for biotech advancements, especially cloning and stem cell research, then it is going to have to
hinge on how, as a society, we decide to carve out the concept of moral status. In recent years, there has been one relatively thorough attempt to define the concept of moral status, by Mary Anne Warren in her book *Moral Status*. I use her “complete” definition as a foil, show how it is useful, and show where it fails as a complete concept of moral status. I then put forth my own simplified definition of moral status, and claim that it is all one needs to get good public policy with respect to some bioethics debates like abortion, stem cell research, and especially human cloning both research cloning and reproductive cloning. Once we know what the concept of moral status is, what things we have moral obligations to and why, then we can make the tough decisions about how to proceed in most of the difficult moral cases, but especially in the case of human cloning. From the definition of moral status that I provide a simple defense of human cloning will be offered, both for research and reproduction.
CHAPTER I
THE HISTORY AND BIOLOGICAL FACTS OF CLONING

Introduction

In order to set the record straight about the scientific facts of cloning, it will be useful to review ever so briefly the history of cellular biology beginning with the discovery of DNA. I will agree that some investigative starting points are more arbitrary than other, but for a treatment of cloning, which deals essentially with genetic material, it seems best to begin with the discovery of genetic material, DNA, and how it relates to the cells that contain it; for it is the advancements in understanding how the cell works that leads to understanding how cloning is possible. After tracing this cellular and cloning history, I shall show that many of the moral misunderstandings about cloning derive from false views of either the methods, intents, processes, or results of cloning experiments. Initially, some may object that the facts of human cloning are not important as to whether or not cloning is a morally permissible activity; “we should have never started the research,” they claim.\(^8\) In this first chapter, however, I cannot discharge all the objections to cloning. Nevertheless, I claim there are many arguments against the use of human cloning and cloning research that can be weakened, refuted, or shown irrelevant if just the biological facts are known. Moreover, the answer to the question as to when cloning research began is unclear because cellular research history is concurrent with cloning history; that is, the latter is dependent on the former. If one is acutely aware of or not interested in the history or biological facts of cloning and just wants to read about the ethical arguments, then I would suggest the

\(^8\) For an interesting discussion of this, see “Genetic Engineering: Reprise” in *The Journal of the American Medical Association* 220 (1972): 1356-7.
In The Beginning

The start of genuine genetic understanding begins with Friedrich Miescher (1844-1895) in 1868. Using discarded surgical bandages obtained from wounded Crimean War soldiers, Miescher discovered what he called the “nuclein,” a substance containing both phosphorous and nitrogen, that he believed came from the nucleus of the pus cells he was studying. Later this “nuclein” became known as “nucleic acid” after Miescher separated it into its parts: a protein and acid molecule. The genetic material he discovered is now known as deoxyribonucleic acid (DNA), and Miescher’s discovery led to both further discoveries and more questions about the cell, its contents, and the overall function of the cell.

In the 19th century one of the major questions biologists wanted to know the answer to was: “Does cell interaction affect the results of cell growth during embryogenesis?” or “Do cells develop independently of their interaction with other cells?” Some 17 years after Miescher’s “DNA” discovery, August Weismann (1834-1914), in an attempt to answer some of the questions surrounding cell development, hypothesized that the fertilized egg (zygote) contained all the genetic “parts” to create an entire organism. That is, he claimed that the first cell has all the genetic pieces to determine the organism, and that interaction between cells is not required, save the division process. The way an organism is formed, according to Weismann’s hypothesis, is both simple and elegant, but ultimately it proved to be false. His theory begins with the claim that all the genetic material or parts for a complete organism are contained in the first cell or more precisely the fertilized egg. When that original, zygote cell divides, the genetic material for the development of the entire organism divide as well, but it divides off in a special way so that after the first cell division, each of the two cells has exactly half the genetic material required to create the organism. In essence, each cell has the genetic material to create half an organism. And at the four-cell stage, after another division, each cell has one-fourth the genetic material of the
original, fertilized egg cell, and so has the material for one quarter of an organism. This process continues until all the special genetic material has been divided off into its relevant cell. When each cell has the right amount of genetic material for its purpose, it turns into the specific cell that its genetic material is designed to produce.

This hypothesis is special because it explains why liver or brain cells are so different from hair or eye cells. The reason, according to Weismann, is that the cells have different parts of the genetic material in them, and since they have different genetic parts, they develop different phenotypic results. This hypothesis also answers the further question as to whether or not cell interaction has an effect on cell development: It does only in so far as the prior cells before dividing have at least twice the amount of genetic material that resulting cells need. For example, when a single celled zygote divides and becomes a blastomere (a two celled organism), its right cell will produce the right side of the organism and the left cell, the left side of the organism; and each part of the organism will be created after its cell has divided off in such a way that it has all and only the genetic material it needs to differentiate into the specific liver or skin or brain cell.

A bold, explanatory thesis like Weismann’s is ripe for biological testing to see if the theory matches the empirical evidence; and in the spring of 1887, Wilhelm Roux (1850-1924) devised an experiment that tested and seemed at the time to confirm Weismann’s thesis about cellular division. The spring is the spawning period for many frogs, and Roux picked the *Rana esculenta*—an edible European frog—for his “Weismann Conformation Experiment.” After collecting the frog eggs, Roux waited until some of them divided into the blastomere stage. That is, the frog egg after being fertilized becomes a single-celled zygote, but after the cell, zygote, divides for the first time, it is a two-celled blastomere. Roux hypothesized that if Weismann’s thesis was correct and he destroyed or “killed” one of the two cells of the frog blastomere, then

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9 Distinguishing genotype from phenotype is an important biological and conceptual fact that will prove useful in further philosophical discussion. The genotype is just an organism’s genetic information. The phenotype, on the other hand, is just the physical and behavioral characteristics of an organism. What role genotype plays in the production of the phenotype is an important issue in biology. We know that the genotype plays an important role, but it is not the only factor in determining phenotype. This mistake is called the fallacy of genetic determinism or the genetic essentialism thesis.
only half a frog would develop because the parts of the frog required to create the other half would be dead. Roux took a frog blastomere and poked one of the cells with a hot needle killing one of the cells and thus half the blastomere. The other cell continued to divide and produced half an embryo, but ultimately it did not produce half an adult frog. Roux thought that the confirmation was successful, and that the reason only half a frog embryo was produced instead of a full frog is because of the connection of the living cells to dead cell. Thus, Roux seemed to confirm Weismann’s thesis that genetic material is divided off to the relevant cell after each cell division.  

As good scientists are trained to do, Hans Adolph Eduard Driesch (1867-1941) wanted to reconfirm Roux results with respect to Weismann’s genetic thesis. So in 1892 while experimenting with Sea urchins, Driesch repeated Roux’s experiment. There was, however, one problem Driesch had for repeating the experiment exactly as Roux did: Sea urchin eggs are much smaller than amphibian’s eggs, like Roux’s frog *Rana esculenta*. Because the Sea urchin eggs were so small, Driesch could not poke one half of the blastomere with a needle in order to kill one of the two cells. Instead of poking one of the halves of the Sea urchin blastomere, he placed it in a flask and shook the two-celled Sea urchin blastomere apart, leaving two independent cells. This one change in procedure made all the difference because rather than one of the blastomere halves dying and affecting the development of the second, both separated halves lived and grew into whole Sea urchins. The only difference Driesch’s separated blastomere Sea urchins had from regular Sea urchins was that they were dwarfed. Why the separated blastomere Sea urchins were dwarfed is a question that may be answered in an investigation of cellular cytoplasm or some other procedural matter like the kind of salt used in the experiment. I will not, however, worry about why these Sea urchins were dwarfed, but I will explain the roll of cellular cytoplasm below. Following the

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10 Weismann and Roux did not have the language of modern genetics for his explanation. So, using the term “genetic material” is a bit anachronistic, but relevant because it is conceptually what they were hypothesizing. It did not occur to Roux that the nucleus would copy itself and then and only then divide, and his own experiments confirmed his results. The problem with Roux’s experiments were discovered and explained why he failed to get the right answer to the question about Weismann’s hypothesis.
success of the Sea urchin experiment, Driesch tried to repeat this experiment with higher animals, but failed.

Clearly the results of Driesch’s Sea urchin experiment should outweigh those of Roux’s because we now have a better explanation for Roux’s frog blastomere death and stunted growth. Moreover, we can make the further claim that Weismann’s thesis of genetic material division is false. Now we know the reason that Roux’s experiment failed in obtaining the right conclusion; that is, when Roux poked the blastomere with the hot needle and killed the one cell, the other cell’s growth was stunted because it was still attached to the dead cell. The more effective experiment is shown in Driesch’s model where the cells are separated and allowed to grow independently of involvement with the other cell, which is a better way to answer and eliminate the chance of cellular involvement in the development stage of organisms than Roux’s experiment. If Weismann’s theory had been correct, then we would have had two half Sea urchins instead of two dwarf Sea urchins. Since this is clearly not the case, Weismann’s theory of genetic material division is false.

It did not take other biologists long to successfully repeat Driesch’s experiment with animals other than Sea urchins. In 1910 Jesse Francis McClendon (1880-1976) isolated blastomeres from a frog for which both halves grew to maturity; and in 1925 Gudrun Ruud was able to do the same thing with a salamander blastomere. Thus, we can conclude from all these experiments that in the early stages of cellular development, all the genetic material necessary for the production of an entire organism is present in each cell, which is a major discovery in the history of biology proper and cloning research in particular. This discovery was essential for cloning to be biologically possible, for if all the genetic information were not contained in each cell, then cells later in embryonic development would not have the requisite information to give rise to a complete organism. Thinking about this discovery today with what we know about the production of identical (monozygotic) twins—they are a single blastomere that separates to form two individuals—it makes sense that each cell contains all the required genetic material to make two organisms because it is just a fact that this does happen and when it does, twins, triplets, and even quadruplets can occur.
Some of the cellular biology history may not seem important or relevant to the cloning debate, but it is essential information because understanding how and why we have made it to the theoretical threshold of successful human cloning will help us to understand what kinds of responsibility we may have for future research. And understanding the history makes it possible to show that the opponent to cloning research, who believes we should have never begun such research in the first place, cannot make her objection without having to give up other biological discoveries that have stemmed from the same early cell research; and I doubt she would want to give up the medical advances that such research has provided. Moreover, we cannot change the past, and claiming that we should have never begun these investigations does not provide answers to the moral questions about what we should do or allow next in the history of human cloning as well as in other cellular research, stem cells in particular. What we can say is that understanding cells and how they work before and after they differentiate (change into the specific cells, like liver or hair) is important. Trying to understand the value of pre-differentiated cells ascribed as totipotent (they have all the genetic material necessary for normal organism development and the capacity for the expression of a complete organism) is crucial for medical advancements from insulin production to gene therapy and reproductive cloning. Now that we understand some of the basic advancements in cellular history that will inform cloning research, we can move on to a description of the beginnings of more advanced cellular research that informed and gave rise to mammalian cloning.

**Naïve Cloning**

Jacques Loeb (1859-1924) was in the process of studying parthenogenesis (the development of an unfertilized egg into an organism) when he discovered something interesting about some fertilized eggs. It seems that if an egg is subject to certain kinds of shock, the egg will become damaged and rupture or tear. When the egg tears, some of the egg’s cytoplasm (the non-nuclear part of the egg) is expelled; however, the expelled cytoplasm remains attached to the original egg while some remaining cytoplasm continues to surround the egg’s nucleus. When the egg’s nucleus divides in
its normal manner, so does the cytoplasm. The expelled cytoplasm, also called an “appended bleb,” does not divide because it is lacking a nucleus. But in some cases a divided nucleus may cross over into the appended bleb via a cytoplasmic bridge: Loeb believed that some of the salt solutions he used to generate organisms by parthenogenesis were responsible for the nuclear transfer between a cell and its appended bleb of cytoplasm. After the appended bleb of cytoplasm obtained a nucleus, it was able to begin dividing and generated a twin of the first organism. This is the first documented case of a successful, although unintentional, cloning experiment, and it was 103 years before Dr. I. Wilmut cloned Dolly in 1997. How and why the appended bleb of cytoplasm did not develop without a nucleus is a question that biologists focused on next.

Hans Spemann (1869-1941), in his famous salamander experiment of 1928, separated a salamander blastomere into two independent cells, and both cells developed into full salamanders. He achieved this blastomere separation with a strand of baby hair—it was the finest thread available since monofilament line had not yet been invented. To split the blastomere he took a fertilized salamander egg and tied a noose around it using the baby’s hair to restrict the shape of the cell and the cytoplasm contained inside; the cell was dumbbell shaped with all the genetic material (the nucleus) contained in one side. After the cell’s nucleus divided a few times Spemann allowed one of the nuclei to move from the side containing all the nuclei of the restricted dumbbell shaped cell into the empty, restricted bell of the cytoplasm. Then he tightened the noose until the cell split. From there he obtained the same results that Loeb achieved—two separate organisms. The second salamander derived from the appended bleb did, however, have delayed growth, but it eventually caught up with its twin/clone.

What one needs to realize in both the Loeb and the Spemann experiments is that the cells that were cloned were ones that were not differentiated; they are cells that had not been programmed for specific use. So in the widest sense of cloning\(^\text{11}\), we have

\(^{11}\) I will provide a technical definition of cloning below, but here it is enough to think of cloning simply as asexual reproduction.
been able to clone for well over a hundred years. The real cloning breakthrough came when the nucleus of a differentiated cell was reprogrammed such that it could produce an entirely new organism independent of the first donor organism. And Spemann had the foresight for this very experiment when in 1928 he called the placement of a differentiated nucleus into the cytoplasm of an egg that had its nucleus removed a “fantastical experiment.” It is this very fantastical experiment that has given rise to the ethical dilemmas that have surrounded cloning and DNA research since the late 1960s.

It seems obvious that the experiments of Driesch, Loeb, and Spemann would be sufficient to show Weismann’s hypothesis as untenable, which they are. There is, however, a strong intuition and fact driving Weismann’s genetic material division hypothesis. That is, there is a cellular change that occurs during the development of an organism. This change, differentiation, is what makes it impossible to take any old cell from an organism and create a twin by providing the right culture material in the lab. This leads to an important biological question in need of answering: “Do irreversible changes in genetic material occur during cellular development?” If there are irreversible changes in genetic material that occur during cellular development, then cloning from adult cells would be impossible, but cloning could still be possible from cells that are totipotent, like early stem cells. Weismann’s theory explained why cells appear to be unidirectional—they cannot get information they previously lost thanks to division of genetic material—a kind of bisection of genetic information caused by cellular division. Moreover, other scientists like Theodor Bovri tried to show Weismann’s theory as correct by appealing to the length of chromosomes.  

Apparently, chromosomes shrink in some cells as they divide, but this was not a conclusive positive experiment in favor of Weismann’s thesis. The only way to determine if there are irreversible changes in genetic material is to be able to transplant the genetic material of an older cell into the egg cytoplasm of a young cell minus the recipient egg’s nucleus. This leads to the further questions about egg and the role of

\[12\] The end of a chromosome in which the DNA is looped back is the telomeres, and the length of telomeres will become an important aspect of debate for the cloning opponent. While this is the case, some cloning proponents appeal to the use of telomeres: the enzyme that elongates telomeres, as a solution to this possible aging problem for clones.
cellular cytoplasm in development of an organism. More precisely, how much influence or control does cytoplasm have in the development of an organism or in the expression of the genes in the production of an organism?

**Egg and Cellular Cytoplasm**

Since we know that the nucleus is the primary vehicle for determining what organism will be produced, and we are interested in understanding how the nucleus works or is manipulated in nuclear transfer (cloning) experiments, we need to understand how the cellular material in which the nucleus resides works; this material is referred to as cytoplasm. Being able to transfer a nucleus from one type of cell to an identical type of cell is not something that, if the cell developed, would be very surprising: Frog cell to frog cell nuclear transfer seems to be something that should be fairly easy to carry out in principle if not in practice. If, however, we took the nucleus from a Sea urchin and put it into a human liver cell, we would not expect an adult Sea urchin organism to be produced. It seems then that every cell’s cytoplasm may have to engender a particular environment or it has to produce particular signals, which it sends to the cell’s nucleus to get the nucleus to divide properly in order to produce a complete organism. So to understand better the nucleus’ role in development and to have controlled nucleus experiments, one needs to know if cellular cytoplasm alone can produce substantial organism growth.

In order to answer the questions about how much control and what role cytoplasm plays in cellular development, J. F. McClendon, in 1938, devised an experiment with a starfish. He took a starfish egg and removed the nucleus. Since it seems that the starfish cytoplasm divides only after the nucleus divides in early cellular development, McClendon wanted to know if an egg sans nucleus would either divide or differentiate. The non-nucleated egg, after being stimulated with carbonated sea water, did divide a few times to create a cluster of cells, but it did not differentiate and grow into a completed organism. These and similar experiments were continued and reconfirmed by Ethyl Brown Harvey at Princeton. Thus, we know from these experiments that a starfish egg with intact cytoplasm and a missing nucleus can divide,
but it can neither differentiate nor produce a complete starfish organism, and the general
conclusion that cytoplasm can only take most biological organisms to this level if at all
seems most plausible.

Some additional experiments were tried to determine exactly how far an egg
with cytoplasm and only partial genetic material would grow. It has been recorded that
haploid frogs have developed to the swimming tadpole size. When a frog or other
organism is ‘haploid’ it means that the organism has only half the normal genetic
material; that is, for organisms that require two sets of genes, haploid would have the
genes from either a male or female parent, but not both. Usually, a haploid organism
gets its genes from the maternal donor that was produced and passed on by the egg.
The main reason haploid organisms do not derive from sperm, which contain the
paternal genes, is because sperm does not have the cytoplasm or other materials
necessary for the production of an individual organism. The production of a haploid
organism should not, however, surprise us because we know, thanks to Loeb, that this
kind of development was possible—parthenogenesis. Generally cases of haploid frog
development do not result in full frogs, but there have been a few cases where
metamorphosis occurred and whole frog organisms were produced. 13

This directly leads to the question as to whether or not the same kind of haploid
development could occur with the paternal genetic material. ‘Androgenesis’ is the term
for haploid development using paternal genetic material, and in 1939 Keith Porter
produced an experiment where he produced an androgenesis frog. One of the
interesting facts about frog fertilization is that when sperm are on the surface of an egg,
the maternal genetic material comes close to the surface making it much easier to
remove the maternal genetic material with microtools. After removing the maternal
genes, Porter allowed the egg to be fertilized with the paternal sperm cell, and what
followed was and androgenesis developed frog. So we now know that frogs can be
produced where only half the genetic material is used, and it does not matter from
which parent the genetic material derives, both maternal and paternal genes will do.

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The bigger question, however, for those that studied the frogs in an effort to better understand differentiation was whether or not the frogs would develop without any genetic material in the same way the starfish did for McClendon.

The answer came in 1951 when Briggs, Green and King performed an experiment that would allow a frog egg to divide in the way that a fertilized egg would, but the egg contained no living genetic material. They took a sperm cell and treated it with a dye that killed the genetic material, but allowed the sperm to remain motile. The maternal genetic material was removed and androgenesis was affected. What occurred was amazing: the egg divided, cleaved, and a blastomere occurred—with no working genetic material affecting the outcome! At the stage of differentiation, however, no further development occurred. One of the reasons this experiment was so amazing is that it was thought that the nucleus gave rise to the dividing process, but we know, thanks to this experiment, that cytoplasm can affect the process up to differentiation.

From all these experiments with egg cytoplasm we know that the cytoplasm does not have the capacity to differentiate and generate a complete organism on its own. It can, however, given the right conditions, partial genetic material, and depending on the type of organism, develop into an adult organism. This means that one can now rule out the cytoplasm as the central cause for differentiation because differentiation does not happen without some genetic material, and this is an important discovery. One might want to say that cytoplasm is necessary, but not sufficient, causally for differentiation. But more importantly we know that cytoplasm is a good place to study the development of the nucleus because we know that the cytoplasm itself is not preprogrammed for advanced organism development. It seems that we are now ready to define cloning, and in doing so provide some additional biological history to the cloning story.

**Toward A Cloning Definition**

In the strictest sense, cloning is a precise, asexually produced copy of a preexisting DNA sequence, cell, or individual organism. This definition, however, is not what people commonly consider cloning to be, nor is it what causes them to worry
about cloning. Additionally, it is not the kind of definition that leads to an effective analysis of the moral problems surrounding cloning. In order to help determine the reason for moral concern, I propose the following definition for what it means to be a clone:

(Clone_{def}) \( X \) is a clone of \( Y \) if and only if \( X \) is asexually reproduced from \( Y \).\(^{14}\)

This type of definition is neutral to just about all moral evaluation because it is has no normative content. This, however, does not obviate the need to explain why and how the cloning questions arise, and why cloning is or seems to be a moral problem if it is a problem at all. Below are some actual examples that fall under this neutral formulation of the cloning definition.\(^ {15}\) I shall refer to them as cases.

(a) bacterium cell division,
(b) plant grafting (apomixis),
(c) natural twinning,
(d) blastomere separation,
(e) embryo splitting,
(f) Nuclear Somatic Cell Transplantation (NSCT\(^ {16}\)) [fusion or insertion of a diploid\(^ {17}\) nucleus into an egg (oocyte)].

When we investigate this initial list of cases, we intuitively see that some are more problematic than others are for moral consideration because they do not involve persons, and it is persons that we are most concerned with in most moral evaluations. Moreover, one could attempt to divide this list of cloning alternatives into several

\(^{14}\) Cloning is, of course, just the act of a clone being created. One could claim that: \( X \) engages in an act of cloning if and only if there is some \( Y \) that is created asexually as a definition of cloning.

\(^{15}\) One could claim that a Xerox copy of a DNA sequence is asexually reproduction. I shall leave this case as the limiting case that just happens to fall under the concept of cloning. I shall, however, try to refine the definition in such a way as to avoid these types of strange cases in the future. One possible way to restrict the definition is to limit it to a domain of genetic identity. Or I could attach ‘and biologically’ to the asexual part of the definition.

\(^{16}\) Sometimes this kind of cloning is called Somatic Cell Nuclear Transfer (SCNT). I shall use NSCT for my acronym instead, but it should be clear that it is the same process.

\(^{17}\) A diploid nucleus contains a full compliment of genetic material, genes, from both a paternal and maternal parent.
different cloning categories: natural and unnatural, or human and non-human, or plants
and animals, or a whole number of additional categories, which may or may not be
relevant to the moral discussion like the ones just listed. I will present an analysis of the
different categories below, for different categorization will be useful in determining the
relevant properties that give rise to the moral issues in each case of cloning. Here,
however, I will take each cloning case separately and describe the cloning process in
order to get clear on the different types of cloning that is technically possible. In the
end, these cases will help in determining if there is an in principle way to distinguish the
morally relevant properties of cloning cases from the non-morally relevant properties,
and in doing so, I will briefly explore these important questions in each case and then
provide a further discussion in the following section below.

**Case (a): Bacteria Cloning**

Bacteria cell division has traditionally been called cloning when an individual
bacterium is placed inside a culture dish and all the resulting bacteria, from natural
cellular division, are genetically identical to the first bacterium. The entire colony of
bacteria is called a ‘clone’. Because bacteria naturally reproduce this way, this seems to
be one of the instances where cloning is not as fertile an area of moral discussion as
some would want. ¹⁸ Bacteria cloning is, however, a very serious enterprise, for it is the
tool of recombinant DNA testing as well as other kinds of DNA testing, and these are
fertile areas of moral inquiry. For example, *E. coli*, the human gut bacterium, is
commonly cloned in this culture dish manner. What occurs is that part of a DNA strand
from another organism, like the human insulin gene, is spliced into the *E. coli* and it is
replicated right along with all the cell’s nuclear DNA. This technique is used in the
production of human insulin. The *E. coli* generated insulin is especially desirable to
those diabetics that are sensitive to animal created insulin. Thus, it should be clear that

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¹⁸ Some people, religious ethicists and politicians, are concerned with bacteria cloning because it provides
a nice analogue for stem cell research as well as problems with chemical and biological weapons. If there
are cases where these kinds of actions are not controllable or if the actions are done for malicious intent,
then there are more relevant issues of moral concern for bacteria cloning or cases that are analogous to
bacteria cloning.
bacteria cloning is medically useful. Additionally, it alleviates the need to use animals, especially mammals, as the insulin factories for those individuals with pancreas disorders, which most would agree is morally advantageous.¹⁹

This bacteria cloning is advantageous in many kinds of research, and after the initial shock wore off, many individuals seem to find nothing morally unacceptable about this technique as long as it is used in a safe manner, which is a consequentialist concern. There are, however, some rather famous objections to this kind of cloning. Moral repugnance to the process and the uses of the process are objections to this kind of cloning; it has been a long-standing objection to many kinds of medical actions and processes. Leon Kass²⁰ has made this kind of intuitive discomfort objection pervasive in the bioethics literature. So, even though it may seem safe to discharge the question of the moral permissibility of bacteria cloning, for it seems there is no reason to object to its application—except, say, for particular cases of recombinant DNA experiments and stem cell instances, there are those that are opposed to its application. Their objections will have to be both explained and evaluated accordingly.

Case (b): Plant Grafting

Plant grafting or ‘apomixis’, as it is sometimes called, is a rather simple process. It is common among farmers and gardeners to take a twig, slip, or shoot to grow a sister plant that is genetically identical to the prior plant.²¹ Having a plant that is a genetic copy of another plant because it was grown from a cutting is what the Greek word “klon” meant, and it is not surprising that the word “clone” is linked etymologically to klon for this reason.²²

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¹⁹ It would be morally advantageous in the sense that there is less harm to individual animals, which on a consequentialist moral theory, like Peter Singer’s, would be morally required, but more on these issues below.

²⁰ Leon Kass is now the leader of the Bioethics Advisory Commission created by President George W. Bush that replaced the National Bioethics Advisory Commission, which was created by President Bill Clinton and run by Dr. Shapiro. Kass is a major player in the bioethics debates both philosophically and politically, and I will devote an entire section to his views on cloning in Chapter III.

²¹ There are some tomato plants that have been in families for more than ten generations.
Prima facie, it would seem that this kind of plant cloning would not be something with which people would be morally concerned. It does, however, tend to bother people (the French in particular) when the tomatoes they eat are genetically modified, and this genetic modification is usually done via recombinant DNA techniques, which is a result of case (a) kinds of cloning. Thus, case (a) cloning could be considered a moral issue for this reason. Nevertheless, genetically modified foods are a separate ethical issue from cloning even though they may be linked under the rubric of bioethics or gene-ethics. This being said, it is clear that the natural process of things like tomato shoots taking over a garden or a more severe case like the quaking aspen taking over an entire forest are different only in degree. But there does not seem to be a moral, but perhaps an environmental, issue other than concerns about the use of a forest and its protection from disease. Since all the trees in a forest could be genetically identical—like the quaking aspen—concerns about particular diseases wiping out the forest are warranted. So, it looks as though plant cloning is not a substantive moral issue unless one is concerned with these other issues of plant diversity or genetic modification. Thus, there is some room for moral discussion of plant grafting with regards to these other moral concerns. How important they are to my overall discussion of cloning is still an open question, but on its face, I do not see any real reason to object to cloning in cases like these.

Case (c): Natural Twinning

The act of natural, in vivo, twining fulfills our definition of cloning, for one twin is an exact genetic copy of the other by asexual means—cell division. This is only the case, however, with identical (monozygotic) twins and not fraternal twins; fraternal twins are the result of two eggs being fertilized by two different sperm cells. There is, however, a considerable difference between natural twining and induced embryo splitting and blastomere separation. I shall consider natural twinning a morally permissible, or if one prefers, a morally neutral event because it is not something that is

intended by the mother.\(^{23}\) If the result of identical twins is the result of an *in vitro* fertilization technique where hormones were used to increase the chance of pregnancy, then there may be a new moral concern. I shall concern myself with this issue when I talk more broadly about reproductive issues in the chapter on argument for cloning.

**Case (d): Blastomere Separation\(^ {24}\)**

The issue of cloning or twinning by blastomere separation is an entirely different biological and ethical matter from natural twinning. The process of blastomere separation is rather simple, and there are two general ways that this splitting process begins. One can either take a fertilized egg from an individual organism or one can create a fertilized egg *in vitro*; it is easier to do the latter.\(^ {25}\) After a fertilized egg has been obtained, usually by *in vitro* fertilization, all one has to do is provide an environment where the egg will divide into multiple, usually two, cells. In some cases the separation can be done at the four or eight cell blastomere stage, but the success rate of blastomere separation declines as the number of cells and divisions increases.\(^ {26}\)

It may help to remember Hans Spemann’s earlier salamander experiment from 1928. He took a fertilized salamander egg and tied a noose around it using the baby’s hair and restricted the shape of the cytoplasm; it was dumbbell shaped with all the

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\(^{23}\) There are cases where a mother may want to have twins because twins run in her family, but it is not the case that mothers can will a blastomere to divide and create monozygotic twins intentionally unless there is some kind of IVF twinning that is occurring, but that is an instance of Case (d) type cloning discussed below.

\(^{24}\) Technically, a blastomere is the result of a fertilized egg (zygote) after its first cell division (mitosis) into a two-celled organism. ‘Blastomere’ and ‘blastula’ have, however, been used to refer to embryos before compaction. Compaction is where the ball of cells cleave together to create a tight mass and begin to differentiate into the respective parts of the organism. After compaction, they are called ‘morula’. In most mammals, compaction occurs sometime around the 8 to 16-celled stage. Compaction for human occurs around the 64-cell stage.

\(^{25}\) The fertilized egg has to be obtained before compaction for it to be blastomere separation. Even though the blastomere is still considered an embryo, embryo separation is the splitting process used after compaction. I shall explain this more below.

\(^{26}\) But interestingly if one divides off an early embryonic cell, a stem cell, that cell can continue to reproduce itself, and this is how germ lines are created. So the earlier one divides the blastomere, the more resilient it is for replication purposes. I will discuss stem cells more below in the discussion of reproductive and research or therapeutic cloning.
genetic material—the nucleus—contained in one side. After the cell’s nucleus divided a few times he allowed one half of the genetic material to move into the empty, restricted bell of the cytoplasm. Then he tightened the noose until the cell split. Thus explaining how the term ‘blastomere separation’ got its name.

Now, a main difference between natural twinning and blastomere separation is that natural twinning is performed in the body of an organism from a naturally fertilized egg, while blastomere separation is not. It is possible for an egg that was fertilized in a lab, in vitro fertilization, to become a natural twin, but it is not as likely. Moreover, natural twinning is not the issue that is morally problematic. What is morally questionable is when an egg is removed from an organism and then cloned by blastomere separation. Plus, the issue of splitting in vitro blastomeres seems to bother people in the same way that embryo splitting of compacted embryos does. One important question is whether or not there is a relevant difference between blastomere separation and embryo splitting. To answer this question we need to know what embryo splitting is and how it is conducted.

**Case (e): Embryo Splitting**

Embryo splitting is similar to blastomere separation. The main difference is that embryo splitting is done after cellular compaction. That is, at some time after the eight-cell blastomere stage (in most mammalian species), the embryo cells compact together to form a tight mass within the cell’s protective membrane—the zona pellucida.\(^{27}\) It is a short time after compaction that the cells become differentiated, and they begin to develop into cells that perform a specific function, e.g. skin, brain, or liver cells. Before the cells are differentiated, they are considered “totipotent.” Totipotency, or being totipotent, is just the condition of a cells nucleus having all the required genes for normal development of an entire organism. This is the state that embryonic stem cells are in during gestation, and this is what make stem cells debates relevant to human cloning debate. When differentiation occurs, enzymes “turn off” parts of the DNA so

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\(^{27}\) The zona pellucida is a translucent protective non-cellular layer that surrounds the oocyte and early cleavage states of mammalian blastomeres.
that others parts can develop normally into whatever type of cell is required by the body. Some of the possible benefits achieved from cloning research is that we may one day understand the aging process, why cells differentiate the way they do, and how to repair damaged cells. For if we could understand how to turn cells on and off and how to repair damaged cells, then we would have a powerful method to tred degenerative diseases like Parkinson’s and Alzheimer’s.

To understand why embryo splitting is a troubling issue, it might help to know why embryo twinning by splitting a post compaction blastomere is done in the first place. Most embryo twinning is done for and by the cattle industry. The embryo splitting is usually done by post compaction blastomere separation.\(^{28}\) The normal method is to create an embryo, artificially—*in vitro*. The blastomere is allowed to develop until after it compacts at the 16 or 32 cell stage for cattle. Then the zona pellucida is pierced and the compacted ball of cells is divided with the use of microtools: micropipettts, microscalpel, and microneedles. Each half, the original and the donor, is placed back into a zona pellucida to allow for normal cellular development. Then each embryo is placed into the uterus of a surrogate mother cow to allow the embryo to be brought to term. One of the advantages of embryo splitting with cattle is that artificial insemination is conducted non-surgically. This is not the case for most mammals, especially humans. Most individuals do not have a problem with the cattle industry trying to produce better livestock by embryo twinning, but when it comes to humans their attitudes are dramatically different because it involves people as opposed to cattle.\(^{29}\)

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\(^{28}\) Additionally, blastomere separation can occur at the four or eight cell stage. Here the cells are separated by either surgery or by some other process. From there the totipotent cells are cultured so as to allow for a possible live birth. This method is theoretically possible, and some cattle industry members try it, but generally they wait until there is a compacted blastomere and separate that into just two viable offspring. But those that are interested in the uses of stem cells, will divide precompacted blastomeres for the sake of creating large amounts of totipotent stem cells.

\(^{29}\) This of course presupposes that cattle are not people and more importantly that cattle do not have moral status that is similar to humans or people. There are some philosopher, Singer for one, that believe that the interests of animals are important, in some cases just as important, as the interests of humans. I will explore the nature or moral status more fully in Chapter V.
The reason that a human would want to split a blastomere, after in vitro fertilization of course, would be to provide a higher probability of success in artificial insemination cases. For humans, this is the reason embryo splitting is suggested in the first place. For humans it works in the following way: After a woman has gone through some kind of hormone therapy to induce superovulation, a few eggs are fertilized and then implanted into her uterus. If all goes well, one of the artificially inseminated eggs will attach itself to her uterus and roughly nine months later a live birth will occur. There are, however, some drawbacks to this practice—for one, the woman usually has to go through some kind of drawn out hormone therapy to induce superovulation. Introducing these hormones into the body at such high levels causes different side effects in each woman. It could, however, be eliminated with the use of embryo twinning by post compacted blastomere separation. At this point people seem to have divergent moral intuitions; some think hormone therapy is less morally unsettling than blastomere separation or embryo splitting, while other think not. If a woman were allowed to go through normal ovulation, providing a normal egg, and allowing it to be fertilized in vitro, then the side effect producing, antecedent conditions of IVF treatments could be eliminated. Moreover, this fertilized egg could divide normally, and at the right moment, the egg could be split and thereby creating a few more identical embryos for transplantation. With the addition of the extra embryos for transplantation, the in vitro fertilization process has a higher probability for success. If it has a higher rate of success, then fewer attempts will have to be done, which most people seem to agree would be better than the alternative for the female patient involved as well as any future child that may result.

Nevertheless, even though embryo splitting and blastomere separation are useful, some people find both troubling as methods of reproductive assistance for both cattle and humans. Using microsurgery on embryos to make multiples is seen by some groups of people as a fundamental disregard of the life and humanity of the embryo, or as a violation of some natural law, and I will discuss this more below. But as troubling

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30 One may want to try blastomere separation at the four or eight-cell stage for a greater chance of conception in IVF cases as well.
as both blastomere separation and embryo splitting are to some, they are not nearly as morally problematic as our final case of cloning: Nuclear Somatic Cell Transplantation (NSCT).

**Case (f): Nuclear Somatic Cell Transplantation (NSCT)**

NSCT is a form of fusion or insertion of a diploid nucleus into an egg (oocyte).\textsuperscript{31} This is the method that was used to clone Dolly, or sheep 6LL3 if one prefers. This method is another instance where science fiction has become science fact. The theory behind NSCT is simple, but successfully implementing the technique was difficult at first, but is becoming increasingly easier as the techniques are being refined. In theory, all one has to do is obtain an unfertilized egg and remove the nuclear DNA from that egg without destroying the egg’s cytoplasm in the process. From there all one has to do is successfully extract some nuclear DNA from an adult cell of some other organism (of the same species for now) and introduce that diploid nucleus into the prior enucleated egg. While performing this task one will need to synchronize the cell cycle of the new DNA with that of the recently enucleated egg. Starving both the donor cell and the recipient egg does the synchronizing trick; this was Keith Campbell’s big breakthrough, which allowed Ian Wilmut and the rest of his team to create Dolly. From here all one has to do is give the spark of life, some kind of electric jolt or shock to trick the egg, with its new DNA, to function as if it were just fertilized. Now that the egg has a complete DNA set, it can begin normal cellular division and if placed into a surrogate womb can become a full organism.

NSCT is the cloning process the public and media have been debating about for the last six years since Dolly’s birth. NSCT is the process that has caused the most concerns for moral theorists and society at large. Many writers associated scientific, social, and moral facts to this cloning process, some were relevant and some were not relevant to the debate at all. This debate has been at the forefront of political concern

\textsuperscript{31} Diploid nucleus cell is the result of the compliment of two genes from a maternal and paternal parent. A haploid cell has genetic material from one parent. Both male and female sex cells are haploid. Their union creates a diploid cell.
for the last six years, and political leaders are worried about the moral implications of cloning technology. It has been before the US Congress several times in the last few years, especially April/May 2001, and more recently with respect to stem cells research. Now that I have provided the biological cases that fall under my general cloning definition, it will be useful to raise and answer some of the important questions that have to be agreed upon in order to have some scientific, moral, and political advancement in the human cloning debate.

Classifying The Cloning Issues

There are many people, proponents and opponents alike, who think the cloning issue is rather simple: Cloning is either wrong because of some moral or religious law or it is thought to be just another reproductive right that a person has. These “simple” beliefs lead to tension between those that are in disagreement about the moral permissibility of cloning. One important point to realize is that the cloning debate is more than the simple caricatures of moral views presented in the media. In many cases, the problems are not about the act of cloning, but how the classification of the cloning issues is done. Another way to put this is that one will arrive at different, conflicting answers to the cloning questions depending on how one classifies the act of cloning in the first place. If the classification of what cloning is, to whom it matters, and where cloning occurs is agreed upon, then perhaps some effective dialogue between the opponents and proponents can occur and bad legislation can be avoided.

The three lists below should help explain why and when cloning is considered a moral problem. The left hand column will be the neutral/good column and the right will be the questionable/bad column. I will use the same designations as before for the types of cloning. (a) bacterium cell division, (b) plant grafting (apomixis), (c) natural twinning, (d) blastomere separation, (e) embryo splitting, and (f) Nuclear Somatic Cell Transplantation (NSCT). I will use subscript letters ‘p’ for plants, ‘a’ for animals, and
‘h’ for humans. So if I were to categorize bovine blastomere separation it would be written as ‘(d)\textsubscript{a}’.

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<th>Non-natural</th>
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<td>(d) [IVF]</td>
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<tr>
<td>(c)\textsubscript{a}</td>
<td>(e) [IVF]</td>
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\footnote{Part of the motivation to divide cloning into these categories is to try not beg the question in any particular way morally. If there is one thing that most moral theorists can agree upon is that any particular moral norm should apply equally and fairly to all like situations. In these cases, I am trying to avoid an anthropocentric categorization of the badness of cloning in a way that will cause the conclusions of the moral discussion to fall out of the way I set up the discussion. I hope this explanation goes some way in achieving this goal. There is at least one additional category that could be established as a moral criterion: animals and humans. This distinction, however, is already captured in the three categories listed and adding it would be otiose.}
The most important thing to try to understand now is: “What is the moral problem with cloning?” One way to try to get to the answer to this question is to explain the different categories of cloning and see if any obvious answers come to the forefront.

**Cloning Differences**

Now that we have a thorough list of the types of cloning that do and can possibly occur, we need to look at the relevant aspects of these kinds of cloning. Debates about natural, unnatural, research, human, non-human, therapeutic, and reproductive cloning will all be examined.

**Natural and Non-natural.** The first question that should come to mind is: “What is the fuss morally with respect to cloning?” If one really does not have problems with the fact that bacteria clone themselves and humans clone certain kinds of bacteria for their own benefit, then what is it about potential human cloning in particular that is the worry morally? And if there really is a problem, what is the source of the moral concern?

Some possibilities can be found immediately thanks to the way that I have classified the kinds of cloning above. Let us begins with an understanding of the natural versus the non-natural (or unnatural) classification. If one of the biggest worries one has about cloning is that it is unnatural, then the relevant question to try to answer is: “What sense of unnatural are we concerned with?” Clearly one cannot be objecting to the moral permissibility of natural bacteria reproduction, and so it seems fairly safe to say that cellular division, or type (a) cloning is morally permissible. One could claim that the moral permissibility is only understood in a natural sense. This is to say that the cloning is only morally neutral in cases where the bacteria are cloning in a natural way and not morally permissible in ways that are non-natural. In other words, it is the kind of cloning that will occur without the interference of humans. I will speak to the issue of naturalness as an objection to cloning below.

The only substantive objection to type (a) cloning would be in cases where human intervention creates a situation that is morally impermissible—like the creation of weapons of mass destruction. But this really is a shift in the morally relevant property. In cases where bacteria cloning is objected to, the worry is not the cloning
part of the action, but the reasons behind or the uses of the cloning or what would be
done with the clones bacteria. This is clearly a consequentialist kind of worry that is
being levied against the cloning proponent. A current example of how bacteria cloning
could be seen as immoral in this way would be the production of biotoxins like anthrax.
In this case, it is the potential harm of the anthrax that is the morally relevant property
and not the manner that anthrax is produced. So, if cloning, per se, is not the problem in
this case, then it may be the case that cloning is not the problem when it comes to other
potential cases of cloning.

There are many arguments that give this kind of consequentialist objections to
human cloning. Opponents to cloning are worried about the bad effects or improper use
of clones, but these worries are in many respects unwarranted as an objection against
the process of cloning proper. The most outrageous cases imagined are those where
clones are created just for the use of their organs or the “spare parts argument” as it is
sometimes called. Just like as bad actions by human agents that use cloned bacteria is
not an objection to the process or the production of the bacteria in general, the same
reply is relevant to the opponent of human cloning who objects that clones could be
used as spare parts: the actions of human agents that use a process for bad results does
not make the process inherently bad. But more likely is the fact that cloning people for
parts is an unlikely way to produce more organs for transplant.\(^33\) So, in the long run,
one has to be very careful to separate out the process of cloning with the use of the
process. If it is the product that is the problem, then it might not matter that cloning is
the method of production because the same kind of actions can occur independently of
how the organism, child, or clone was created.

Type (b) cloning as plant grafting is not a morally worrisome area in the cloning
debate. Plant grafting does not cause the same kind of reproductive issue the other
kinds of cloning do. It might be the case that a particular grape vine is the property of a
vintner and one could be wrong in stealing and growing it for harvest of the grapes, but

\(^{33}\) One of the reasons it is not likely that people will be cloned for spare parts is that it takes far too long to
grow a complete person and harvest an organ. It would be more likely that we could create the
technology to grow just the organ than to create headless homunculi for parts harvesting.
that is a legal question of fact and not a moral issue to be settled on the back of cloning questions.

Another question to ask regarding type (b) cloning is: “Is it morally permissible to take a stem from a plant or tree in order to produce a second or third version of the plant or tree?” This answer to this question is almost too obvious to require asking the question. But given the state of some plants and trees as well as property rights claims, it may not be as simple as it first seems. On the whole, however, the activity that gives us the etymological origin of the word clone is not the kind of action that is deemed morally impermissible in most cases. Moreover, it does not shed much moral light on the questions surrounding the human cloning debate. One thing it does do is show that there is a difference, at least perceptually, between the moral status of plants and trees and higher mammals like humans. I will explore this issue more fully in Chapter V, but for now plant grafting does not generate much resistance or give rise to many complaints with the members of the cloning debate in general.

Natural animal twinning, type (c) cloning, is an activity that is not morally impermissible. There are several reasons why an identical (monozygotic) twin is created, ranging from genetic factors, environmental factors, as well as human factors. Of these three, it seems that the only one that is morally relevant to the cloning discussion is the one that involves human factors. It just so happens that in many IVF cases twins are developed. This can happen in several ways: The first way, and most common manner used in IVF is by blastomere separation. This is done in an effort to try to create many fetuses in an attempt to produce a successful pregnancy. In other fertility treatments, the additional hormones could create a situation where superovulation occurs, and for some reasons or other twins are created. So the environmental factors can be affected by human decisions and can give rise to situations where twins are created.

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34 There are some trees like the Bristle Cone Pine that are five thousand years old and have only a few cones on their limbs. Is it permissible to take these cones, that have viable seeds, in order to study issues of senescence? It seems that we do not, but this may just be an instance of anthropocentrism in ethics not allowing certain moral status to the Bristle Cone Pine, but more on moral status in Chapter V.
So the question then becomes a question that concerns the nature of when and how twins are created in a manner that is morally permissible. Since there is not a complete understanding about how and when twins may occur, it does not seem likely that there is a real moral problem with natural twinning whether it be influenced or caused by human agency, the non-natural way, or by some other manner. If this is the case, then serious doubt is cast on the claim that twinning is wrong in many other instances. For there is a very fine line between the “natural” and “non-natural” with respect to human reproduction that will hinge on how one cashes out the terms ‘natural’, which I will attempt to do below.\(^{35}\) Now that it is clear that the ‘natural’ instances of cloning are morally permissible, it will be important to see what is different factually between these natural cases and the cases that are considered ‘non-natural’ or ‘unnatural’.

Of the three non-natural forms of cloning for animals and humans, blastomere separation and embryo splitting are very similar. If the “unnatural objection” is a cogent objection, then these kinds of human cloning will be impermissible. If, however, there is no real difference between the kinds of twinning in (d), (e) and (f) cloning, then there should be no real moral concern. Since there is a genuine moral concern, either people are mistaken about the facts that make these cases different or they have made a mistake in reasoning about the cases. I shall show that it is the latter horn of the dilemma that explains the current moral concern with cloning.

The outcome of these three processes is the same—genetic twins. So the objection to the processes cannot be based on some kind of consequentialist model because the outcomes in both cases are the same. This is sometimes referred to as the “no difference” reply to the moral situations under evaluation. The problem, if there is a problem, has to be placed in some other sphere of the activity other than the consequences, but what could that be? If one is still concerned with the natural versus

\(^{35}\) I deal with the unnatural objections in Chapter III.
the non-natural distinction, then the worry is going to have to be placed at the feet of the human interference definition of what it is for something to be non-natural.36

One general worry between cases (d) and (e) cloning that is relevant to the discussion comes in the form of a species objection. The objections given for (d) and (e) forms of cloning are not levied against the cattle industry when they use it to produce identical livestock. It is considered a standard practice, and one that many people do not know much about, and when they do learn of the practice they are not concerned morally. One of the interesting moral question is: “Why are cloning activities morally permissible with cattle, but not with humans?” There does not seem to be a very good non-question-begging reason to make this distinction. If it is impermissible for humans to perform this activity on humans, then some will argue that it should be impermissible for humans to perform the activity on cattle. There may be a difference morally between the cases and the species, but it is either not obvious or it has to be argued for in a way that I am unaware of at this point, for no one has made the argument. Ending this introduction to the issue here, leads nicely into the next category of possible cloning categorization: human versus non-human cloning.

**Human and Non-human Cloning.** It should be clear that all six kinds of cloning could be affected on non-human animals. The facts are clear, and there are cases that support each kind of non-human cloning. There are instances where individuals were upset that sheep and mice have been cloned via NSCT, but the general worry about NSCT cloning is not a worry about the cloning and animals, via method (f), but instead is a concern about the cloning of humans by any means. And if one is to understand the genuine moral problem with cloning if there is one, then the difference between non-humans and humans is another place to look for relevant differences even if these differences are not defendable philosophically are relevant to the moral questions. In addition to all the types of cloning occurring to and by non-humans, the only kind of cloning that has not occurred to humans, that is biologically possible, is case (f), NSCT, which may happen

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36 I will explore this objection more fully in the section that deals with the set of natural objections in Chapter III. There are several possible definitions of natural and unnatural that could be used in an argument against cloning, but we shall see that each of them fails.
by the end of January 2003. This is to say that natural twins, split blastomeres, and embryo splitting have all occurred to humans.

As I have said before, there does not seem to be a good reason to claim that cloning for some animals, especially higher mammals, is acceptable and the cloning of human is not, but we will see more arguments below. There just does not seem to be a morally relevant property that would make this distinction necessary for a moral assessment of human cloning. There may be a way to try to show that such a criterion or set of criteria that will make this distinction relevant to the debate, and I try just such a strategy in Chapter V while developing a concept of moral status. Just what would make it unacceptable to clone sheep, cows, and monkeys, but not humans? This debate is going to have to boil down to some claim about the moral status or moral worth of humans being as being greater than, more primitive than, or more basic than the moral worth of other non-human animals; but this claim is going to have to be defended via argumentation as opposed to relying just on prima facie claims of the moral status of humans and non-humans that humans make for everyone. For in many ways this is the most question-begging assumption there is in any ethical debate posed by humans for humans.

**Research and Reproductive Cloning.** There are several things to get straight before discussion can begin. Earlier in this chapter, I provided a definition of what exactly I mean when I write about a ‘clone’ and ‘cloning’:

\[ \text{X is a clone of Y if and only if X is asexually reproduced from Y.} \]

I did not, however, make the distinction between research

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37 As reported in *The Seattle Times* on Wednesday 27 November 2002, and can be found at: http://seattletimes.nwsource.com/html/healthscience/134584837_clone27.html. More recently the religious cult, the Raelians, claimed to have already cloned a human being and have brought it to term in December of 2002.

38 I make the charge of question begging often when referring to some of the arguments that are put forth by the opponents of cloning. This could encompass many different kinds of objections. Begging the question is logically defined as a formal fallacy where one uses the conclusion, or something logically equivalent to the conclusion, as support for the conclusion. There are many classic examples of this: Claiming murder is wrong because killing innocent people is wrong would be a case of begging the question because murder is the same thing as the killing of innocent people. There are, however, cases of cloning arguments where the opponent of cloning does not support their argument with any reasons. When this happens, I charge them with begging the question in general because there is nothing to support their claim other than their asserted conclusion. So in many instances this is a call for more argumentation when none is offered.
or therapeutic\textsuperscript{39} cloning and reproductive cloning. The former is just as it sounds; it is cloning for research purposes, attempting to generate genetic therapies and cures for different diseases. All the cloning cases described above can be done in a research setting for research and, ideally, for therapeutic purposes. The kind of cloning that most religious groups will find objectionable is when human embryos are cloned, harvested for embryonic stem cells, and ultimately destroyed—usually within fourteen days.\textsuperscript{40} So the intent of research cloning is not in any way an attempt to bring a “person” into the world, and ‘person’ here should be construed in the widest sense of the term.

Sometimes the “Doctrine of Double Effect,” (DDE), is used as a possible defense of research cloning.\textsuperscript{41} There are, however, problems with the DDE, and I will deal with DDE more fully in the chapter concerning religious objections to cloning.

Reproductive cloning, on the other hand, is just as it sounds; it is an attempt to bring a “new”\textsuperscript{42} person into the world via cloning. The methods discussed above, as case (f), NSCT, are in full use in the case of reproductive cloning for humans. There is

\textsuperscript{39} Some want to lump all research cloning with therapeutic cloning. Although I will use these terms interchangeably, it should be clear that they are not the same thing. One can do research cloning to see how certain biological factors influence cell growth without using or intending any of that information to be used in therapeutic research. But much of the information obtained in research is used for therapeutic purposes, so I will treat them as synonyms.

\textsuperscript{40} The reason the stem cell debate and the cloning debate are linked is that one way to get stem cells is to clone other embryonic stem cell in one of the manners stated above. If, however, someone had some disease that required stem cells to cure them (blood disease or sickle cell anemia), then stem cells could be cloned from that individual given certain parameters. Currently there are only four ways to get stem cells: (i) aborted fetal tissue, (ii) embryos that remain from in vitro fertilization treatments, (iii) specially created “research-purpose” embryos, and (iv) mature “adult” somatic cells. Since (iv) does not solve some research problems, it is the least problematic morally. (i) and (ii) are linked to the abortion debate and carry that moral baggage with them. Finally, is (iii), which is associated with cloning. Currently cloning stem cells that actually work seems the most promising of the four alternatives.

\textsuperscript{41} The Doctrine of Double Effect is a principle used by Catholics to defend many seemingly impermissible actions like abortion. The distinction lies on the difference between what one foresees as a consequence of one’s actions and what one intends for those action to effect. A good place to begin reading about this topic is Philippa Foot’s paper “The Problem of Abortion and the Doctrine of Double Effect” in her collected papers \textit{Virtues and Vices}, Berkeley, University of California Press, 1978.

\textsuperscript{42} ‘New’ should be understood as referring to a new token individual and not a new type of individual because the “new” person will have the same genetic profile as the donor has but will have different phenotypic traits as well as other different relational properties. This is important to make clear, for there are those that think cloning will make a new person that is the same in all respects as the prior individuals.
a recipient, enucleated egg, some donated DNA, a transfer of DNA, and hopefully for the couple wanting the cloned child, a birth some nine months later. This kind of cloning could be done at the request of an infertile couple, a gay or lesbian couple, or as some other reproductive demand by an individual. In any case, reproductive cloning is the willful attempt to bring a clone to term by any given number of means. In the discussion of the cloning argument that follows, some of the argument will be aimed toward one or both types of cloning, research or therapeutic and reproductive, and I shall indicate when this occurs. It should be noted that the most fervent opposition is to reproductive cloning, but many religious thinkers believe that there is a slippery slope from research cloning to reproductive cloning; and that is why religious leaders have requested a complete ban on human cloning. In addition to the slippery slope argument, some religious thinkers believe that stem cells that are capable of bringing a new individual to term have a special moral status, and for that reasons research cloning is impermissible, illustrating the link between stem cell research and cloning once again. From this we are to understand that stem cell research on embryos is as impermissible as reproductive cloning, and this leads to other allegedly powerful objections to research cloning.

Now one could claim that the major difference between reproductive cloning and research cloning is what the researcher or cloner intends by the cloning process. This, however, makes light of the philosophical significance of what is actually occurring in the different cases. If one thinks that the only difference between reproductive and research cloning is what is intended, then there is not much room for moral outrage, for all that would have to occur is for the intentions to change in the reproductive cases, and the moral permissibility of the action would have to change as well. If this were all there was to changing the moral permissibility of one action from impermissible to permissible, then there would be too easy a way to make actions permissible. The problem is that there seems to be more to the permissibility of an

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43 It seems that the biggest public worry is that of reproductive cloning. But the more people learn about cloning, the good it can do, and the widespread use of the techniques, the more concern for other cloning cases becomes, in part, because of the link with other moral debates like abortion.
action, or there are more relevant properties of actions, than just the intentions of the person performing the actions that give rise to its permissibility. If there is any room in moral considerations for the consequences of actions, then this opponent of cloning is going to have to look elsewhere for reasons to object to cloning. And since most moral intuitions do give at least some weight to the consequences of actions, this move looks to be problematic for the defender of this view. Let us now move on to try to determine what exactly is wrong with human cloning.

What Is The Problem With Human Cloning?

One of the most important points in any philosophical debate is determining what exactly the problem under consideration is. In the case of human cloning literature, there has not really been a good explanation of what exactly is the moral problem when it comes to the issue of human cloning. There have been allusions to what might be a problem: moral repugnance, genetic identity, human intervention in reproduction, and violation of the clone’s right to an open future. These have all been offered as reasons not to clone humans. The moral question, however, is something entirely different. Why is it or what exactly would it take to show that the cloning of a human being is something that is morally impermissible?

When the biological facts of what cloning is are known, there seems to be a relative sigh of relief on behalf of many that are on the moral fence about whether or not we ought to clone human beings. In the simplest terms, cloning is the asexual reproduction of some organism in order to create a new, genetically identical organism, and it seems that it is just a coincidence in some cases that the new organism is identical—a kind of metaphysical accident of reproduction. Many proponents of human cloning have used the identical twin analogy to assuage moral worry from the process of cloning, and for many this is a satisfying answer to the moral question: “Is it permissible to clone a human?” Since cloning occurs naturally in the case of twins, it

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44 Each one of these problems has a proponent of the view or a set of proponents. I will present each of these objections to human cloning in later chapters, especially Chapter II, III, and IV.

45 Stephen Jay Gould is one of the proponents of cloning that uses the twins analogy as a defense.
is not a real problem if one does it on purpose in a manner similar to twinning. But there are a few disanalogies between twins and clones—the clones are temporally displaced unlike the twins and the clones do not share the same uterus even though in some cases they could. If the twin analogy were all it took to assuage the fears of all the opponents of human cloning, the debate would have been over a long time ago. Since the debate is not completely settled, the relevant question to ask is: “What is the problem with human cloning?”

Some of the more public issues of why it might be wrong to clone a human are based in a religious framework. Questions like: “Would a clone have a soul?” or “Would a clone be a normal person?” are all relevant questions to one degree or another. The simple answer to these questions is yes: if humans have souls, then a clone would have a soul, and an appeal to natural, identical (monozygotic) twins could be appealed to again as justification. One small problem with soul identification and ascription is that there is not any way to tell if one has a soul or not. So if the worry about human cloning is that a clone may or may not have a soul, then that worry is just not worth much moral evaluation since we cannot determine soul habitation in humans in the first place. Normalcy is another issue all together. If ‘normal’ is just a synonym for healthy, then it seems that there is no reason to think that clones could not be born healthy. But if one means something more specific by ‘normal’, like “has a mixed genetic make up,” then there may be reason to worry morally. But it seems that any specific definition of ‘normal’ that does not just involve health, but involves some kind of relational normalcy criterion, will be question begging.

**What Kind of Cloning Is The Moral Problem?**

What kind of cloning is a moral problem is the first issue that needs to be addressed. I have already shown that there are different issues that have to be focused upon: research and reproductive cloning are just a few. But clearly it is not the case that the cloning of bacteria is the moral problem or it is not the biggest moral problem. There are several good reasons to think this. First, this is the exact way that most bacteria reproduce in the first place. If there is a moral objection to cloning bacteria,
then the same moral objection could be offered up against the breading of domestic animals like cats, dogs, and rabbits. Clearly this is not the result that one wants to achieve in the cloning debate.

Second, most people are not concerned with the kind of cloning that occurs in plants. The same kind of argument for plants can be run as the argument form the permissibility for the cloning of bacteria. Creating a plant from cuttings is something that most people do not find a moral matter unless perhaps it is the stealing of grape vines from a famous vineyard, and then it is the stealing that is the moral matter, not the plant cloning. It is an issue of property rights and not an issue of whether or not one can cut the stem from the grape vine. For if the vintner decided to give you a sprig from his vineyard, then it is acceptable for him to do so. There is not a substantive moral issue here.

Is cloning just a problem that concerns humans when cloning is about humans? Or is there a real problem with the cloning of cows and sheep? It seems that there may be a moral issue with whether or not one should clone cows and sheep, but they are not the ones that humans are concerned with when it comes to their mode of reproduction. The same can be said of mice. Lab mice have been inbred for so long that they are basically genetically identical anyway. Cloning would not really make a difference to lab mice in terms of evaluating the outcome of experiments since they are so similar genetically now. So, what is it that is the moral matter?

Some Moral Problem Possibilities

Here is a brief list of some of the possible moral problems with human cloning:

1. Is it the manipulation of genes and genetic sequences that is the problem?
2. Is the problem the sanctity of human life? And cloning somehow destroys this sanctity?
3. Is the problem that life begins at conception and since there is no conception with cloning, there is not any life? This is an odd consequence, and clearly false.
4. Is the problem that one has a right to genetic identity?
5. Is the problem that one has a right to an open future?
6. Is the problem the willful alteration of human genes for no good reason?
7. Is the problem that people are planning their children, and this is the moral
issue? All of these possibilities have been presented as problems for human cloning, and I will deal with each of these questions at some point in the dissertation.

One of the things that make the human cloning debate so interesting is that there is not a real clear issue to grab a hold of and say, aha, the problem is the following, like there is in other moral debate like: abortion, euthanasia, and capitol punishment. In all of these cases, the moral problem is the elimination of life (life here is understood in the broadest sense possible). In each of these cases it is the killing or letting die of some life that is the moral problem. This problem is easy to understand because as finite individuals, we have a special view of life: it is good, and in some cases we think that a life that is minimally worth living is better than never having existed at all. So, I claim that one of the difficulties with the human cloning debate is that there is not a “real” concrete problem to grab hold of and argue over like in the case of abortion. Now in some cloning spheres like research cloning with stem cells, there are issues that run parallel with abortion; but this is accidental because stem cells are routinely obtained from aborted fetuses, and not because there is some link between abortion and cloning in terms of intent and property instantiation.

It seems that moral arguments about the production or generation of life are arguments that should not occur in the same way as arguments about the elimination of human life. Just because both debates involve life does not mean that cloning and abortion are relevant moral analogues, and this is part of the problem with the cloning debate today. Let us take abortion for example: If one has a right to life, or not to be killed unjustly, because one is a person, then how does that same right translate into a debate where the thing that might have certain rights does not even exist yet? The question is: “do possible persons have rights?” This is a difficult question indeed, which will depend on what theory of rights one adopts. On its face, it seems that the answer is clearly no, but it is not this simple a question to ask. For if a mother decided to get pregnant while on a drug that would cause her child to be deformed, then we

46 I will deal with “rights” argument in Chapter IV, but I will not be defending any particular view on rights beyond a common understanding of rights that one might expect to get from reading the US Constitution.
would say that she will harm her not yet conceived child.\textsuperscript{47} So, it seems that there is a way in which one can harm a possible person if not directly at least indirectly.

Is the problem with human cloning that there is a possibility of negative actions that could occur from the use of cloning technology? If this is the real problem with cloning, then human cloning is not that much different from a motor vehicle. Just about every event or invention in the human world has some negative, unforeseen, and unwanted consequences; this goes for everything from motor vehicles and airplanes to the electric iron. There is also a difference between something having some acceptable negative consequences and some action or event that would have negative consequences only or mostly negative consequences. In the case of human cloning there are no good arguments that suggest that cloning will have mostly negative consequences or only negative consequences. There are some \textit{a priori} arguments concluding the possibilities of harm, but the real issue is an epistemic one, and none of the arguments I will discuss in this dissertation will have the ability to justify the harm claims. And if there were such arguments, they would be at best speculative and most likely not persuasive; it would be difficult for such an argument to be cogent. So it seems that bad consequences or possible bad consequences are not a good objection to human cloning because most things have some bad consequences and the possibility of bad consequences are not a sufficient condition for eliminating some activity especially when there are tremendous possibilities for good as well.\textsuperscript{48}

Is the problem with human cloning not that there are potential harms that could occur, but there are actual harms that do occur? If this is the moral problem with human cloning, then the harms need to be expressed and then it can be determined if these harms are necessary to the act of cloning or if they are just contingent facts that may or may not occur. If the harms can be eliminated because they are dependent on current cloning techniques or if one could show the harms are outweighed by the benefits of

\textsuperscript{47} This is one aspect of the Non-Identity Problem, which I discuss more fully in Chapter II.

\textsuperscript{48} Possibility arguments cut both ways, and just because something may be bad is not a good reasons not to do something, it does not follow that just because something may have good consequences, it should be done. I will take a closer look at the possibility argument in Chapter II.
human cloning, then there is a real sense that the problem with human cloning is not a moral problem at all, but is instead a problem with understanding exactly what it is that is meant by cloning and how and what it might be used for by those that want to clone. In other words it is a technical problem about cloning, not a moral problem, and when the techniques get better and the harm is reduced, the moral worry fades away.

In an attempt to get to the actual problem of human cloning one can see that there is not a single core issue as there is in other ethical debates. There is a cluster of issues that drives the debate, and clarity of the moral issue(s) is only going to be achieved after one looks at the different arguments for and against human cloning. Such an investigation will allow one to determine what each opponent and proponent is trying to achieve with his or her arguments. So I am only going to try to locate the problem of cloning in one of the number of areas discussed in the remaining Chapters, for it is not clear even after this discussion what the problem with human cloning is.

For now, it is enough to note that there may not be a real problem at all, but just a lot of concern about a process that is not yet safe or understood, and as much as these concerns are relevant to the safety of a potential clone, these concerns do not warrant a complete ban on cloning. Another way to try to think of the problem of human cloning is to ask the following question: “If cloning were technically possible where it was just as safe as or safer than natural childbirth procedures, would there be a moral problem?” If the answer is no there would not be a moral problem, then the cloning debate is really about practical concerns in the field of biology and the philosophers and bioethicists should just step aside and let the medical experts work out the details.49 If, however, one believes that cloning would still be wrong even if it could be done just as safely as natural childbirth, then the objections have to come from someplace other than the physical harm arguments. What these objection are we shall soon see, but many individuals find that the arguments against human cloning are not as convincing as they might first appear. Plus, many of the arguments that are not harm related are couched in

49 Of course the bioethicist will have something to bring to the discussion about how the medical experts and biologists conduct their research. I do not want to give the impression that I think bioethicists do not have a place in the discussion, for they clearly do, and there may be a middle ground for them to work with the other participants of the debate.
religious terms, and we will have to look to these ethical traditions to see if there are substantive objections to cloning that do not relate to harm as well, but I will leave explaining the rest of the argument over the next three chapters.

Conclusion

We now have a better understanding of what kinds of cloning there are, how we have arrived at this stage in biology, and what questions one should try to answer in an effort to define the human cloning debate by determining what the problems with cloning are or might be. There are many kinds of cloning, and there are many aspects of the debate for which there may not be an answer that will satisfy everyone. It seems that only after making the questions clear and providing possible answers can we make any progress for public policy, biology, and philosophy. In the following chapters, I shall, in the course of explaining the best arguments for and against cloning, show and evaluate the common answers to these questions. This will allow us to try to eliminate issues that are not relevant, show exactly what the problem with cloning is if there is one, and then determine what to do and where to go in the public policy arena.
CHAPTER II
PHILOSOPHICAL ARGUMENTS AND HUMAN CLONING

Introduction

“If philosophers are going to apply ethical theory successfully to practical issues, they must first have a theory. This may seem obvious; but they often proceed as if it were not so.”50

“The person is a subject, a moral agent, autonomous and self-governing. An object is a non-person, not treated as a self-governing moral agent…[By] ‘objectification of persons,’ we mean, roughly, “what Kant would not want us to do”51

“It is certainly possible that there may be no substantial benefits to society that would result if human cloning were to become a reality. Yet this would constitute a good argument for prohibition only if considerable harms are a likely consequence."52

The three quotes that begin this chapter touch on three fundamental issues that seem to be tied into any practical discussion about human cloning, whether the cloning is for research or therapeutic purposes or is purely for reproductive purposes. The first is simply the problem of what ethical theory is the right one for public policy decisions in a democratic society. Since I am not concerned with defending any particular moral theory at this time, I will not argue the merits of one theory over another. What seems

to be the best for everyone involved in the cloning debate (as well as all bioethics
debates) is a pluralistic endeavor that tries to incorporate as many of the ethical
principles that we can without getting into blatant contradiction. What I shall show in
the course of this chapter is that many of our common moral sentiments are captured by
the principles of the particular ethical theories that I will present below: Deontology
(Kantianism), Consequentialism (Utilitarianism), and Virtue Theory (Aristotelianism). 53
I will first sketch out a cursory explanation of each of these theories. Secondly, there is
the issue of Kantian ethics. It is a dominant ethical theory that many theorist claim to
defend when it comes to the issue of human cloning. The problem is that it is not clear
that a Kantian should object to human cloning based solely on the Categorical
Imperative. Thirdly, we have the issue of harm, which is the terminology that
consequentialists or utilitarian ethicists trade in. It seems that one of the very best
arguments against human cloning is the argument from harm. There are, however,
many philosophical difficulties with how one might cash out a theory that trades in
harms and benefits as well as the problem of what agents are relevant in a discussion of
benefits and harms. Most notably the question of whether or not a clone can be harmed
by virtue of being a clone because if the clone had not be created in that way, then the
clone would not have existed in the first place. More precisely, the question is can you
harm someone by bringing him or her into existence in a certain way if they would not
have existed if you had not done what is considered the harm? 54 Finally, we trade in
ethical virtues. It is a common way to deal with moral dilemmas in the medical field to
talk of virtues and conducts of behavior of medical professions. So, for this reason one
will have to understand the history of this method of moral deliberation, as well as its
limitations.

In order to help satisfy the criterion given to us by Hare, I shall examine the
ethical theories of Aristotle, Kant, and Mill; and show how modern bio ethicists use

53 Clearly there are more ethical theories that one could consider: Feminist Ethics, Relativistic Ethics, or a
Religious Ethics, but for the purpose of this discussion, I think it is sufficient to deal with just these three
classic ethical theories. I will, however, give many religious ethics their due in Chapter III.

54 This is sometimes called the Non-Identity Problem (NIP) as named by Derek Parfit in his Reasons and
Persons.
these theories or parts of them to defend certain normative ethical claims. In doing so, I shall show that contingent on some theories and ethical theses, there are good reasons not to clone. On the other hand, I shall show that where these theories disagree on a conclusion about cloning comes down to a disagreement about where and how moral status is obtained.\footnote{I have left the debate about what the criteria for moral status are for the final chapter, Chapter V. It is agreement on what constitutes full and partial moral status that will allow for conscientious legislation about human cloning as well as other reproductive techniques like: abortion, stem cell research, and \textit{in vitro} fertilization techniques.} In the end, it looks as though it is the concept of moral status that is the root cause of all the problems in the biomedical debates. If this is right and I can come up with a way to determine or define moral status in certain domains that is topic neutral with respect to the given moral theories, then I have done something that is useful for both the philosophical and public debate. What I shall do now is explain the dominant ethical theories, explain the objections to cloning that arise from proponents of the particular theory, reply to the objections, and show how general moral principles from each of the theories are used in almost every case of biomedical ethics decisions. This will lead to a thorough understanding as to what is at stake in the cloning debate, both theoretically and practically.

In what follows, I will briefly outline the general features of the ethical theories under consideration, show how they work with respect to the cloning debate, and explain the types of objections that follow from adherence to that ethical theory. What I will not be doing is debating the virtues and vices of the particular ethical theories nor will I defend one theory as more superior than another. In the case of public policy and practical ethics there are plenty of different ways that one could make moral decisions, but the major ethical theory that guides policy in the United States as well as many other democratic countries is consequentialism or utilitarianism—\footnote{I shall use ‘consequentialism’ and ‘utilitarianism’ interchangeably in the following way. Historically Bentham and Mill have been referred to as utilitarians, and it is more dulcet to the philosophical ear to use ‘utilitarian’ with them and ‘consequentialism’ for more modern authors.} I shall use these terms interchangeably. This does not mean that consequentialism is the best ethical theory, just the one that is used in most of the political policy analysis; and hence, it is relevant to the analysis of human cloning in contexts of public discourse and policy making.
There are many legislators that are religious and have religious ethical theories as their policy assumptions, but I will have to delay explaining religious theories and the objections to these theories until Chapter III. To begin the philosophical argument analysis of human cloning, I want to start with consequentialism in its historical form. After dealing with consequentialism, I will move on to analyze deontology and conclude the chapter with virtue ethics.

Three Ethical Theories

The three general theories of ethics all have something at the center of their moral theories that distinguishes them from the other theory. If we understand what each theory takes to be the object of moral assessment, we will better understand why one would claim that a particular kind of human cloning was permissible or not give the ethical theory. Consequentialism is a theory that takes actions or more precisely the results of actions to be the primary bearers of moral value. Now for many of us, this is where the moral buck stops. Something is good/right or bad/wrong contingent upon the outcome of a particular action. That is, some action is good if it has good consequences, bad if it has bad consequences. Thus, this is a rather intuitive position for which people can relate moral decision making. Actions, however, are not the only thing for which one could take to be the object of moral evaluation.

Aristotle and modern virtue theorists take a person’s characteristics to be the primary object of moral assessment. So, what is important for a virtue theorist is not the outcome of a particular action, it is the kind of person one is in performing the action. This kind of ethical system is the historical benefactor of moral codes like the Hippocratic oath for physicians and one of the historical precursors to more modern codes like the International Nurses Code of Ethics (INCE). Professional codes of ethics like the INCE and the Hippocratic oath oblige doctors and nurses to have certain kinds of characteristics and from the characteristics certain moral evaluations follow.

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57 Hippocrates lived between 460 BCE and 377 BCE, and his medical oath was clearly an influence on the likes of a young Aristotle (384-322 BCE) who was seven when Hippocrates died.
Kant’s view, known as deontology, takes the motives we will (very roughly, our intentions—whether we act from and in accordance with our duty) as the ultimate bearers of moral worth. Kant goes to great length to show that it is not the results of an action that matter morally nor is it a person’s characteristics that matter morally either. For “the coolness of the scoundrel,” he says, makes his deeds that more abhorrent to us than if he was not so cool. This is why a person’s characteristics, contra Aristotle, cannot matter, for coolness may be a virtue, but in some instances it may be a vice. One of the primary problems with a deontological theory is that it requires understanding the motives or intentions of the individual; and motives and intentions and as such are not easily accessible to moral evaluation. There are, however, more important aspects of deontological argument that will be relevant to any cloning discussion; most importantly in the Kantian case is whether or not human cloning is consistent with Kant’s Categorical Imperative, but I shall leave this discussion for later. Let us move on to a more in depth discussion of the moral theories and the arguments that are presented against cloning give the particular theory.

**Consequentialism**

In its classic formation, consequentialism or utilitarianism as it is better know to non-philosopher, began with Jeremy Bentham (1748-1832) and was then advanced by John Stuart Mill (1808-1832). In what follows, I will give a brief understanding of their general positions of consequentialism, and then I will explain what a few modern consequentialists might say about human cloning under the circumstances of advancing biotechnology.

Bentham thought that there was a need for a social reform in England in the late 18th Century. For this reformation to occur, and for the people of Great Britain to benefit from the reform, he had to provide a moral and legal theory for social change. In his seminal work, *The Principles of Morals and Legislation*, Bentham went to great pains to set the groundwork for a theory that provided the principle of morality and how to legislate such issues as punishment as the title indicates. Famously Bentham begins his book with, “[n]ature has placed mankind under the governance of two sovereign
masters, pain and pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do.”\textsuperscript{58} A new moral theory was born, and its simplicity and seeming epistemic justification made sense to many readers and continues to be a dominant moral tradition to which philosophers assent to one degree or another.

Later in that same paragraph we get the term “principle of utility” that is the guiding principle for utilitarians, and it is: “that principle which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question…to promote or to oppose that happiness.”\textsuperscript{59} Needless to say that this is a crude model of when something is right and wrong. Nevertheless, Bentham does many things in order to get us to understand how to determine when something is right or wrong in accordance to the principle. He provides us with a list of where and how pleasure and pain are developed as well as a list of seven criteria on how to measure such pleasures and pains, which I will not provide here.\textsuperscript{60} So this seemingly crude method of moral analysis is not something that is as subjective and unprincipled as it might at first appear thanks to Bentham’s ability to explain how we might test if something is the more pleasurable. The major problem with Bentham’s theory is that it treats all pleasures and pains as equal in kind, and for our next utilitarian, Mill, this was the flaw of Bentham’s theory that he would remedy.

J. S. Mill was a disciple of Bentham. Mill’s father was a friend of Bentham’s, and Mill was raised in the philosophical mold of utilitarianism. When it came time to write his philosophical treatise on ethics, \textit{Utilitarianism} was the result. Mill renamed the principle of utility as the “Greatest Happiness Principle,” but it was essential the same principle, Mill writes: “actions are right in proportion as they tend to promote happiness; wrong as they tend to produce the reverse of happiness. By happiness is


\textsuperscript{59} Bentham, page 2.

\textsuperscript{60} His list, without explanation is: intensity, duration, certainty, propinquity, fecundity, purity, and extent. There explanations can be found in chapter 4 of \textit{The Principles of Morals and Legislation}.
intended pleasure and the absence of pain; by unhappiness, pain and the privation of pleasure.”

Of the modifications that Mill made to Bentham’s general theory of utilitarianism, two are important. First, Mill separated kinds of pleasures, and the more intellectual pleasures happen to rise above the physical ones in moral assessment. The second major difference that some ascribe to Mill is that he is not concerned with particular acts that produce the greatest happiness, but rather he is concerned with actions that are based on certain rules that give rise to the greatest happiness when followed. This is the standard distinction between an act and a rule utilitarian, and many philosophers read Mill as a rule rather than an act utilitarian like Bentham. At this point in the utilitarian discussion it will be useful to present a larger dichotomy of kinds of utilitarians and how one might fit into one of the particular groups. From there it will be easier to see how one might object or defend human cloning based on the kind of benefits and harms that are caused given a particular utilitarian framework.

**Kinds of Utilitarians**

The modern utilitarian, J.J.C. Smart, in his book, *Utilitarianism: For & Against*, coauthored with Bernard Williams, utilitarian critic, provides an outline of a categorization of utilitarianism. The tree of distinctions follows the following order. The first distinction is that of act versus rule utilitarianism. What is meant by act utilitarianism is rather straightforward; it could be understood in the following general way: An action is right if and only if the consequences of the act are as good or better than any other available act. Contrasted with act utilitarianism is that of rule utilitarianism, and its moral principle is something like the following: The rightness/wrongness of an act depends solely on the goodness/badness of the consequences of the general adherence to the rule to which the act conforms. Generally Mill is considered to be a rule utilitarian, while philosophers like Bentham, G.E. Moore, and J.J.C. Smart are act utilitarians.

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Subsumed under both categories are the eudaimonistic and non-eudaimonistic accounts of act and rule utilitarianism. For the eudaimonistic utilitarian, the good or that which is good is equated with happiness—Bentham and Mill fit into this category. G.E. Moore, on the other hand, is a non-eudaimonistic utilitarian believing that the good is neither happiness nor pleasure. This is partially spelled out in his *Principia Ethica* where he presents an ideal utilitarianism. This ideal utilitarianism is predicated on the idea that there are some mental states that are intrinsically valuable or good, like accruing knowledge, but this value or goodness is independent of the pleasantness or happiness that is produced to the person experiencing the mental state.

Subsumed one branch farther down this tree of utilitarianism is the hedonistic and non-hedonistic accounts of utilitarianism. The hedonistic account equates happiness with pleasure, and we know that this is the position of both Bentham and Mill. There are, however, other utilitarians that deny the syllogism from good to happiness to pleasure at the point where happiness is equated with pleasure. Moore is the clearest proponent of the non-hedonistic version of utilitarianism. The question is then, “what do the different kinds of utilitarianism have to do with the human cloning debate?” The answer: everything.

If one is trying to decide whether or not human cloning for whatever reason, therapeutic or reproductive, is morally permissible, then one is going to have to look at the consequences of the action to see if more good is produced than not. Granted there are those that will claim some actions are bad no matter the consequences, but the cloning debate does not seem to be one of those kind of activities—at least I will argue that it is not in this chapter. In later chapters, however, there will be other argument to consider. The moral assessment will change depending how one determines the goodness or badness of the action given certain norms and facts that one takes to be primary in cases of moral evaluation. Before I move on to the consequentialist argument against human cloning, it will be important to look at two different facts about consequentialism: Act and rule utilitarianism and how to determine what is valuable.

**Act and rule utilitarianism.** One of the major differences between the originator of utilitarianism, Bentham, and its greatest son, Mill, is the difference between “Act
Utilitarianism” and “Rule Utilitarianism.” It is generally agreed, but not by all the Bentham is the act utilitarian and Mill is the rule utilitarian; and I am going to assume this distinction without debate, recognizing that there may be good reason to think of Mill as an act utilitarian. The issues, however, is more interesting philosophically than the historical significances between Bentham and Mill. If one is an act utilitarian, then all one has to worry about it whether or not a particular act is the best act to do in a certain situation. This is markedly different from the rule utilitarian that thinks what one ought to do is act on a rule that will over the long run produce the best consequences.

A more formal definition of the principle of utility for an act utilitarian would be something like:

An act is right if and only if the consequences of the act are as good or better than any other available act.

So, given any moral situation, if the action that is performed produces consequences equal to or greater than any other possible act, then that action is right.

Contrasting this with a more formal version of rule utilitarian’s principle of utility will prove useful. It states:

The rightness/wrongness of an act depends solely on the goodness/badness of the consequences of the general adherence to the rule to which the act conforms. This principle is not concerned with particular actions (like a particular instance of reproductive cloning) but with how much good (utility) come from following a general rule about some types of actions (like cloning). So, a rule utilitarian could agree that a particular instance of cloning might be good in that case, but it is not morally permissible because adherence to the general rule would produce more bad consequences than good. Clear examples are easy to generate. Cloning a child so that a sibling can have a liver transplant or use some cord blood to rejuvenate or replace bone

62 There are those that think the labels of act and rule utilitarian are anachronistic and should not be applied to either Bentham or Mill. Josh Gert is one such proponent, and I think he has a point. But for the purpose of explaining utilitarianism, I do not think it is philosophically damaging to make this distinction.

63 This is similar to Parfit’s Q principle, which he uses to try to solve the Non-Identity Problem.
marrow. Even though this could be good under an act utilitarian, the general rule of cloning could lead to bad consequences. The Boys From Brazil or Brave New World scenarios are all one has to think of to generate more bad consequences from adherence to the general rule that cloning is permissible than the good produced in one instance of cloning to save a sibling.

I do not want to get into the debate about what version of consequentialism is right or if rule consequentialism is self-defeating. It seems to me that if one is going to be a consequentialist, then act consequentialism is the way one really needs to go, and that any attempt to formulate a coherent rule consequentialism is going to fall under the weight of some heavy criticisms. But the one thing that rule consequentialism has going for it is that it our moral and legal thinking are generally rule based, and for this reasons alone, it has stayed as a viable option. So, in order to be topic neutral as to whether or not act or rule consequentialism is the correct moral theory, I will try to couch the consequentialist’s argument in such a way that either proponent will feel comfortable with the argument presented on their behalf, and when they will not assent to the argument, I will explain why it is the case. Let us move on to an even more pressing issue of value.

**Types of Value.** I characterized Smart’s position with regard to the hierarchy of consequentialism on one level as eudaimonistic and non-eudaimonistic. This is just one way to try to cut up the value pie. In the general case, one would think of the eudaimonistic theorist as one that believes ‘good’ is equated with ‘happiness’ and the non-eudaimonistic is equated with something other than happiness. There is, however, more than one alternative that can be subsumed under a non-eudaimonistic theory of value. In some cases, the satisfaction of desires and aims is what is of value, and these desires and aims do not have to lead to happiness. The attainment of certain states of affairs as autonomy, understanding, various kinds of functioning, achievement, and deep personal relationships are all things that can be of value under the non-eudaimonistic theory of value. They are all things that can be of value, but do not bring forth happiness or pleasure. For example, one could value autonomy, but the freedom
one has to make particular decisions, especially tough decisions, may lead to a state of affairs that is not pleasurable.

In order to understand how one might understand a newer system of value, we need to make it clear that both Bentham and Mill were hedonic utilitarians. This is to say that they equated happiness with pleasure. Thus one gets a simple syllogism from good to happiness to pleasure. And for Bentham and Mill the only intrinsic value was the hedonic value of pleasure. For modern consequentialists this is not the case. There has been a move away from hedonic, agent-centered theories of value, and an agent-neutral approach to intrinsic value has taken its place.

With most consequentialists believing that the correct moral theory ought to have an agent-neutral or intrinsic value view of what is good, we need to know what those intrinsic values might be. Pleasure might be an intrinsic value, but so are: friendship, knowledge, love, personal achievement, culture, freedom, and liberties of an unlimited kind. The most important liberty for some consequentialists that are proponents of reproductive human cloning are liberties or rights that concern how and when one is allowed produce offspring, that is, reproductive rights.\(^64\) This new multifaceted approach to consequentialism is a pluralistic understanding of consequentialism where the intrinsic values are not limited to just pleasure.

One should remember, however, that a pluralistic consequentialism is still a consequentialist theory. Whatever the theory of value a consequentialist’s has, it is not about the intrinsic value when it comes to moral considerations; the consequences of the action still determine the moral worth or goodness of the action. It is just that the calculation of the goodness will be reflected in the theory of value that a particular consequentialist has.

One of the final features of consequentialism, and in fact, most classic ethical theory is that of impartiality or as some would say universalism or as R.M. Hare has stated, universalizability.\(^65\) In short, when one is considering the consequences of an

\(^{64}\) Reproductive rights defenses of human cloning will occur in Chapter IV.

action, all the parties affected by the action must receive impartial consideration. Peter Singer defends this kind of consequentialist view among others. It is time to move on to the consequentialist arguments concerning human cloning.

**Consequentialist Arguments Against Human Cloning**

“The unique and distinctive ethical issues raised by the use of somatic cell nuclear transfer to create children related to, for example, serious safety concerns, individuality, family integrity, and treating children as objects”

The quote from the NBAC encompasses what they take to be the best arguments against human cloning. It is not surprising to see “safety concerns” or “harms” as first on the list. Whether or not one is an act or rule utilitarian, there is an objection to human cloning that works under the conditions given for almost any utilitarian theory, that is, the notion of harm. If it is the case that the harm of creating a child by cloning is greater than the benefits for having the child, then it is impermissible to have the child by way of cloning. The general strategy is to point to either contingent factors like the inability to perform the cloning procedure correctly in fewer than 277 attempts and the inability to stop genetic problems or to determine the age of the cells of a newly cloned organism. The second set of harms that are provided as creating a problem for human cloning stem from social and psychological harms.

**The Harm Arguments**

The harm arguments are some of the more persuasive and philosophically cogent arguments for the opponent of human cloning, and they come in a variety of forms as well as from many different kinds of ethical theorists. I have chosen to present the harm arguments in the consequentialism section because consequentialism is an

66 NBAC Report on Human Cloning, page 3-4

67 Several individuals put forth this kind of argument, and it will play a key role in the later discussion about the Non-Identity Problem. One person to look at for issues like benefits outweighing particular harm or vice versa is Warren Quinn’s article on abortion: “Abortion: Identity and Loss.”
ethical theory that is concerned primarily with outcomes or consequences of an action; and in the case of the “harm arguments” it is the harm a clone and others suffer that is the alleged bad consequence making human cloning morally impermissible. Let us investigate the harm argument in the following order: physical, psychological, and social. But before I begin the explanation and evaluation of the different types of harm arguments, I need to provide a definition of what a harm is. I cannot defend a full-fledged harm theory here, but what I do say should be enough to get to the heart of the matter with respect to the harm arguments against human cloning.

**Harms.** The term ‘harm’ is notoriously vague, and there are many things that may seem to be a harm, but are morally permissible because “the harm” promotes some further benefit or that “the harm” in question is the result of some accident. The kind of harm in the former case would occur in a surgery to remove a tumor or some other malignant object from the body. The act of cutting into a human body is clearly a harm if anything is, but in general most people do not find anything wrong with surgery given certain constraints. 68 This, however, is not the only thing that can be meant as a harm. Another kind of morally neutral harm is an accidental harm. Falling from a tree and breaking one’s arm is a harm to both the arm and the person, but it is not the kind of harm that is relevant for moral consideration: we do not blame the tree for the accident nor do we blame the victim for the accident as long as there was not some negligent behavior that caused the fall. So the crucial questions for harm assessment in the case of human cloning is: “What is a harm?” and “When is a harm relevant for moral assessment in a particular case of human cloning?” 69 I propose that we take a brief look

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68 A notable exception to surgery as an acceptable harm comes from the religious sect of Christian Scientists. Most would agree that unnecessary surgery against one’s desires is a harm, but all forms of medical interventions are harms according to the Christian Scientists. I will discuss their beliefs more fully in Chapter III, which deals with religious objections to human cloning.

69 This is especially relevant in cases of therapeutic cloning where a mother wants a child that is biologically related to her, but her eggs contain mitochondrial DNA that is diseased in some way. By using a donated egg and replacing mother’s nucleus into the donated egg—just the way cloning works—and then fertilize that egg so the child does not have some disease that is only carried in mitochondria. This is an important issue for women for only eggs contain mitochondrial DNA, not sperm. It seems in at least this case there is not a harm, but a benefit to both the potential child, the parents, and society at large.
at what some theorists claim harms are to create a usable definition, and leave the latter question to be answered in the evaluations of the particular harm arguments below.

Providing a complete analysis of what a harm is or might be is not the focus of this project. So I shall rely on other theorists to help determine what a harm is, when a harm is something that is acceptable in a certain instance, and when it is relevant for moral consideration. In his most recent version of *Morality*, Bernard Gert provides a list of harms (evils) and benefits (goods) that will prove useful in understanding what a harm is for discussion of the harm argument relative to the cloning debate. Gert writes, “Everyone agrees that death and pain are evils or harms...In fact, an evil or a harm can be initially defined as the object of an irrational desire. Defining an evil or a harm in this way provides a list of evils: death, pain, disability, loss of freedom, and loss of pleasure.”

Gert also think that no one would desire a harm without adequate reasons and likewise individuals avoid these harms as well without adequate reasons. Trying to abstract from the irrational desire aspect of Gert’s harm theory, I shall define harm in the following way:

\[(H_{def}) x \text{ is a harm of } y \text{ if and only if } x \text{ is some loss to } y \text{ caused by } z.\]

This harm definition fits well with Gert’s theory because death is the loss of a life, pain is a loss of normal sensations, and disability is the loss of an ability. With the loss of freedom and the loss of pleasure, we can now begin to understand how the harm


72 I should note that there is a powerful argument in support of human cloning if one accepts Gert’s rationality aspect of harms and benefits. If it is the case that avoiding harm is rational and not taking certain benefits is irrational, then it follows directly that cloning is beneficial if one accepts one additional premise: Human cloning is a rational desire. Whether or not desiring human cloning is rational is up for debate, but it seems that for someone that could not have a child that is biologically connected to them without cloning, and it is rational to want to have children that are biologically connected to ourselves, then it is clear that human cloning is rational and thus morally permissible given Gert’s constraints. I do not know if Gert would agree with this assessment, but it seems to follow from his harm and rationality theory.

73 It is interesting to note, that natural death is not a harm given my definition of harm because there is no relevant value for the variable ‘z’ unlike morally impermissible deaths like murder where the ‘z’ value is filled by an assailant that we claim has committed a morally bad act and harmed the individual.
arguments against human cloning might work by incorporating these kinds of harms. One reason I want to limit the rational desire part of Gert’s theory during this discussion of harms is that I want to leave room for the harm of non-rational agents. But if there is a rational agent, I want to allow for the claim that one could have adequate reasons for desiring a harm, for this is one way to obviate harm objections in certain instances.

Cases like this are easy to generate especially when one harm will alleviate the need for a greater harm. The old saying “an ounce of prevention is worth a pound of cure” is the intuitive motivation for this claim. If there were a permanent cure for the common cold but the cure required that I have the symptoms of a severe cold for ten days, then it is rational to have the harm of cold symptoms for ten days to never have a cold again. This is the kind of example that I think Gert has in mind when he claims that one would have to have adequate reasons to accept a harm. With this understood, all we need to get the harm argument motivated is a definition like the one given above.

The Physical Harm Arguments. There are many forms and proponents of the physical harm argument, but the simplest version has to deal with the possibility of physical harm to the clone qua clone. This is to say that there is something about being a clone that is or could be a physical harm to the clone. There are many proponents of the harm arguments that I will list only a few: NBAC, Jonathan Chan, Melinda Roberts, and Rosamond Rhodes. There are also different kinds of harm arguments and the argument come from different ethical traditions. So I cannot list them all here and I cannot discuss every version of the argument either.

This is important because I do not want to beg the question against those that think a person is created at conception. It is important to think that a non-rational agent might have desires because that agent could have been rational, but I will deal with this concern later in the section on the Non-Identity Problem below.

The younger one is, the more rational this wager is. If I were 79 years old, I may think that I will not have 10 more days of cold in my life, so it might not be rational to accept the curing harm.

There are really two separate arguments in this category. The one I talk about is the potential harm arguments, which can be discharged. The second argument is the actual harm argument. That is, the claim that it is an actual harm to a clone that it is a clone. Few would claim that if some activity is a harm, then it is morally permissible unless there are adequate reasons to accept that harm. In the case of cloning, however, we will see that this might not be the case. I will leave the actual harm argument for analysis within the Non-Identity Problem, for there it will matter if something is an actual harm or not to the clone. For now, it seems best to leave this section for analysis of the possible harm arguments.

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proponents of this argument, but its clearest form can be extracted from the “Executive Summary” of the NBAC report.\footnote{78 National Bioethics Advisory Commission (NBAC), \textit{Cloning Human Beings: Report and Recommendations of the National Bioethics Advisory Commission}, Rockville, MD. June 1997.}

The general form of the argument is:

(PPHA): Potential Physical Harm Argument

(1) If an action, $A$, will probably cause harm to others, then it is wrong to perform the action, $A$.

(2) The use of cloning techniques will probably cause harm to the child (clone).

$\therefore$ (3) It is wrong to use cloning techniques to create a child (clone).

There are several things that one needs to note about PPHA. First, is the relative vagueness of what is meant by a ‘harm’? Providing a rather liberal definition of what constitutes ‘a harm’, which was achieved above, can easily solve this conceptual issue of vagueness. I do not need to analyze the definition of a harm too much because is seems that no matter how liberal the definition of a harm is, it will not affect the objections levied against PPHA below. So this very broad definition of a harm is sufficient for purposes of analysis even though it seems that $H_{def}$ is false in at least some instances.\footnote{79 Examples of such a case are easy to come by: A man is married to a woman that is unfaithful to him, causes him strife, and spends his money. It could be that another man could take this woman from him, so there is a loss of a wife caused by this new man. But given that the husband’s life is better without the wife, it is not a harm. So, the general definition is false in cases like this, but for analysis of the harm argument, it will not matter.}

To be charitable, let us consider premise (1) of PPHA to be true. Clearly there are counterexamples: Any kind of medical procedure involving harm like dental work or just about any other kind of surgery makes (1) false. All we have to do to help achieve defense of (1) from these kind of cases is to refer back to Gert’s requirement that there be adequate reasons to allow a harm. So we can grant (1) in limited cases like cloning and still see how the potential harm argument fails.

Premise (2) is an empirical claim that will eventually be shown true or false by the facts of the matter. Some of the harm worries concern the number of eggs that are
needed to produce a clone and the safety of the cloning technique for both animals and humans. A short list of potential harms to the clone and cloner is: hormonal manipulation of donors, multiple miscarriages, developmental abnormalities, and excessive number of attempts that could damage the womb. What is to be made of these potential harms? It seems that some of them are not really harms that are unacceptable just as the harms concerned with many surgeries are acceptable. If someone wants to go through the hormonal manipulation, risk multiple miscarriages, and possible womb damage due to an excessive number of attempts to have a cloned child since it is the only way for them to have the child that is biologically linked to them, then it seems clear that this is something that is morally permissible when it comes to the assessment of the potential harm for both the parent and the cloned.

Even though 277 eggs were used to create Dolly, the relevant number of attempts is really 13. Lee Silvers writes, “[o]nly 29 of these fused cells [277] actually became embryos, and these 29 embryos were introduced into 13 ewes, of which one became pregnant and gave birth to Dolly. If safety is judged by the proportion of those lambs born who were in good health, then the record to date is perfect. And this ratio is better than the initial in vitro fertilization success rates. Quoting Silvers again:

No matter how you look at the numbers, they are better than those obtained during the initial development of human IVF. Steptoe and Edwards worked with hundreds of egg, over more than a decade, to perfect the process of fertilization in a laboratory dish. They then introduced embryos into women on dozens of occasions before achieving the birth of Louise Brown. And for years after this first birth, the average IVF success rate—calculated as the proportion of women who gave birth after receiving embryos—was less than the 1 in 13 reported in the Dolly experiment.

Thus it seems that many of the potential harm questions are either factually wrong, are the same harms as we already accept especially in IVF cases, or are empirical questions.


that will only be answered in cases where the cloning is actually done. And we know that false premises, accepted practices, and heroic epistemological assumptions are not sufficient as objections to a potential medical breakthrough for those that want children that are biologically linked to them. But this harm argument centered on the participants of human cloning and not the clone in particular.

There are other physical harm arguments, however. These arguments are potential harm arguments as well, but they cover a different kind of harm: harm to the clone and not to the people doing the cloning. The harms are potential because we do not know enough about how cells age to determine if a clone from a cell that is 30 years old will behave as a 30 year old cell or as a new cell. To put the argument in the form of a question would be: “Does genetic material begin at age zero after being tricked back into totiopotency?” There is one argument that takes just the worry seriously: “Telomeres Argument.”

(TA): Telomeres Argument

1. The length of telomeres decreases the older a cell gets.
2. Telomeres determine the age of the cell.
3. If the telomeres cannot be restored or lengthened, then the clone will have a shorter life.
4. If the clone’s life is shortened, then the clone is harmed.
5. If the clone is harmed, then it is wrong (morally impermissible) to clone.
∴ 6. It is wrong (morally impermissible) to clone.

The telomeres argument really hinges on premise (3). Currently we do not have the technology to lengthen telomeres for cellular development. But more importantly 90% of all cellular division occurs in the womb. So, if the clone makes it past the initial stage of cellular division, it does not seem to be a risk of the clone being or acting older, in a cellular sense, than it actually is. So premise (3) is false, and the argument is not

Telomeres are the physical ends of linear eukaryotic (an organism composed of one or more cells containing visibly evident nuclei and organelles) chromosomes. They are specialized nucleoprotein complexes that have important functions, primarily in the protection, replication, and stabilization of the chromosome ends. Thus the telomeres are important in determining the age of certain cells.
sound. There are some techniques that are being developed to try to lengthen the telomeres, but for now it is not know whether or not there is some way to bring cellular age back to zero if it does not occur in the cloning process. In addition to the worry of inherent senescence of cells, there are two additional premises in this argument that could be problematic.

Premises (4) and (5) are far from controversial. Whether or not some life is shorter than it could have been or is shorter than it should have been is not something that makes much sense conceptually. Lives are as long as they are and nothing more. It is common to speak in a manner that says so-and-so should have lived longer; say after so-and-so died in a car crash at the age of twenty-seven. But whether or not that life should have been longer is a metaphysical question to which we do not have an answer. But more to the point, it is not obviously true that a shortened life is a harmed life as premise (4) states. In addition, it is even less clear that if something is harmed, then it is wrong to clone them.\textsuperscript{83} So the additional doubt from premises (4) and (5) make this argument unsound or potentially unsound in at least three places.

Ultimately the physical harm argument comes down to the potential harm to either people involved in the cloning process or harm to the clone. In both cases the potential of such harm does not seem to outweigh the potential benefit, but this decision is something for rational agents that are involved in the decision making process to make. This is to say, the potential harm is analogous to the harms that are morally acceptable in cases of medical surgery and natural child birthing processes after a certain age.\textsuperscript{84} Plus, the only way to achieve the potential benefit that cloning may provide is to think that some harms are acceptable, and this is something that all great achievements in medicine, science, and exploration have had to make. This will make a difference depending on what kind of consequentialist one is if one is a consequentialist as all. An act utilitarian may not find this particular defense satisfying, but a rule

\textsuperscript{83} This is the Non-Identity Problem once again.

\textsuperscript{84} Fertility rates decrease after age 35. The likelihood of a Down Syndrome child increases as well as the potential for fraternal twins due to two eggs being released during ovulation. If a woman wants to have a child after the age of 40, these are potential risks that have to be taken into account.
utilitarian that has a different time horizon and the whole of society in mind will make a
different assessment of the harms and benefits. So it seems that if cloning is the only
way for one to have a child that is genetically linked to the parents, then the option
should be open to the person seeking the treatment for infertility in the first place and
the potential harm argument is not cogent enough to obviate the desires of the parents.
Of course this last part of the defense only works if one thinks that cloning is a
reproductive issue, which I will take up in Chapter IV below. If one denies that cloning
is a reproductive right or one is not a consequentialist, then the argument presented may
not be persuasive.

The Psychological Harm Arguments. The psychological harm arguments also come
in a variety of different forms, but there is one version that has been reprinted several
times and is worth repeating and evaluating here: Famed bioethicist Søren Holm, from
the University of Copenhagen, presents a version of the psychological harm argument
he calls “A Life in the Shadow” argument. Holm thinks that the standard replies to
opponents of human cloning are based on our understanding of identical (monozygotic)
twins; and the fact that clones are not in the strictest sense exact copies even in cases
where there is an exact genetic copy placed into the donor egg (the latter because of the
influence of mitochondrial DNA as a small factor in determining phenotype) is a strike
against this kind of argument. Holm claims these cloning proponent replies are cogent,
but he still thinks, “there is some core of truth in the assertion that it is wrong
deliberately to try to create a copy of an already existing human being.” Without
telling us what this core of truth is or how the modifier ‘deliberately’ plays a role
morally in the decision, Holm goes straight to his “Life in the Shadow Argument.”

85 See Callahan 1993; LaBar 1984; Macklin 1994; McCormick 1993; Studdard 1978; Rainer 1978;
Verhey 1994 for similar versions of this same argument.

86 Holm, S. “A Life in the Shadow: One Reasons Why We Should Not Clone Humans” Cambridge
Quarterly Healthcare Ethics 7 (Spring 1998): 160-162. This short article has been reprinted in at least


88 The reason that ‘deliberately’ may not make a difference morally is quite simple. Imagine that there is
a couple that cannot have children without the aid of in vitro fertilization. There just happens to be a long
Holm begins with a standard psychological observation about people and how they react to newborn children. When a child is born, we ask questions like: “How will it develop? or What kind of person will it become? and we usually answer in some kind of psychological way… I hope that he won’t get the kind of temper you had when your were a child!”

What is wrong according to Holm is that in some sense we have a higher probability of getting the answer right with clones than we do with regular children. Holm thinks that knowing the answers to these kinds of questions will have a negative affect on the way that the clone (child) is reared. And because there is a general public tendency to believe in the truth of genetic essentialism, Holm writes: “it is likely that the parents of the clone will already have formed in their minds a quite definite picture of how the clone will develop, a picture that is based on the actual development of the original.” He goes on to claim, “at every point in the clone’s life there would be someone who had already lived that life, with whom the clone could be compared and against whom the clone’s accomplishments could be measured.”

I claim that the important moral question is: “What is wrong with a life in the shadow?” Holm’s position is rather clear. He writes, “it diminishes the clone’s possibility of living a life that is in a full sense of that word his or her life…therefore, as long as genetic essentialism is a common cultural belief there are good reasons not to allow human cloning.” And it is this diminishing life that the clone would lead that is a psychological harm to the clone. So one would have to think that there are no good family tradition of twins in both the male and female lineages of this couple. If the parents not only wanted to have one child, but instead deliberately tried to have twins, would this matter morally. The answer seems to be an unquestionable no. There may be other factors that give rise to this couple trying to have twins. Perhaps they want more than one child, but the hormone therapy is more than the mother wants to go through again. The couple wants their child to have a sibling and know that they cannot risk, for whatever reasons, to attempt another pregnancy. This seems to pull the teeth from Holm’s deliberately premise.


90 Holm, p. 161. Genetic essentialism is sometimes called genetic determinism, but under either name, this is a fallacy; one cannot infer the phenotype from the genotype. I will explain the falsity of genetic determinism below when I evaluate the NBAC’s psychological harm argument below.


reasons to clone since there is this level of psychological harm occurring to the clones, presumably both possibly and actually.

There are several problems with Holm’s “Life in the Shadows Argument,” and I shall present three objections here: (a) False beliefs cannot be premises in good arguments; (b) Holm equivocates on what it means to live a life—especially ‘that life’; and (c) His inference from the possible to the actual is invalid.

(a) One of Holm’s essential premises in his “Shadow” argument is that there is a general belief in genetic essentialism. Because of this belief parents will treat their children in such a way that they will be harmed psychologically. It is not clear why Holm thinks that it follows from false beliefs about genetic essentialism that there are no good reasons to clone. This has the same form as the following, clearly invalid, argument: As long as writing with the left hand is considered sinister, there are no good reasons to let people write with their left hands. Any cogent objection to human cloning is going to have to rest on something more substantial than a false cultural belief that may or may not be so widespread. Plus, if there are good reasons not to clone as long as genetic essentialism is part of our cultural beliefs and genetic essentialism is not the moral problem, then Holm needs to provide us with the good reasons, which he does not do in his paper. There is no reason to think that the false belief in genetic essentialism should have a bearing one the moral worth of some activity like cloning.

(b) Holm writes, “at every point in the clone’s life there would be someone who had already lived that life, with whom the clone could be compared and against whom the clone’s accomplishments could be measured.” What exactly does he mean by ‘that life’ in this argument? There seem to be only three possibilities about what ‘that life’ could mean. Either ‘that life’ is an anaphoric reference to the clone’s particular life or it is a reference to the life of the donor of the DNA. If it is the former, then this is not an objection to human cloning. For what kind of an objection is it to object that someone is living his or her life? It is not any objection at all because it is false that the clone is living any life other than her own, the clone’s life. The other possibility is that the clone is living the life of the donor. This is false as well. It cannot be the same life that

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was led by the donor, for there are far too many facts about the two lives that are
different to allow it to be the same life, but most importantly it is the clone’s life that the
care is living. The third possibility it seems is the most charitable way to read Holm: It
is that the clone is living the same genetic life as the donor, and that life is the life that
the clone is living. But even this claim is far too strong to be true, and it does not get
Holm the conclusion he wants or what he needs to make his argument follow logically.
For even if someone lived the same genetic life, like identical twins, there is not
anything morally impermissible about such a life or about bringing such a life about.
The general reply to Holm’s point here is that there is only one person that can live any
particular life, and no one but the one living a particular life can live that life even if the
lives are genetically identical at the start like identical (monozygotic) twins and clones.
So in effect Holm has missed the point here and his objection to human cloning via this
part of the shadow argument is not cogent.

c) My final objection to Holm’s “Shadow” argument is two fold: (i) Holm
 commits a basic modal fallacy. He moves from the possibility of some event to the fact
 that that event will occur, and (ii) His objection commits him to the impermissibility of
 a currently morally accepted state of affairs. The modal fallacy is quite simple to
 recognize and understand. His claim that because it will be easier to get the right
 answer to question about what kind of person a clone will be, the parents of clones will
get the answer right and require that their children (clones) live in their shadows. All
the failures and achievements of the donor will overshadow the clone, and the clone
will have to cower or bask in that shadow. But according to Holm, this shadow is
something that harms the clone psychologically, and this is one reason why we should
not clone. His logical move from the claim that is it possible that this state of affairs
could occur to the claim that shadow creation will occur is invalid. But even if we grant
Holm this modal move, there is a better objection to his shadow argument.

For every child that has a successful parent whether the parent is a Nobel
Laureate, President of the United State, a well know Philosopher, or a great mother,
every child lives in the shadow of that parent—good or bad. But more troubling for
some people is not that they live in the shadow of some successful parent, it is the
success of a slightly older sibling that causes them even more stress and harm, as Holm would have to call it. Since there is no general way to distinguish one shadow from another without begging some questions, it seems that Holm’s argument, if sound, commits him to the claim that older sibling and parental shadows are harms and are one reason not to have children and especially one reason not to have more than one child. Clearly Holm is not going to want to accept the conclusion that people should not have more than one child, but there is not much for him to give up in his “Shadow” argument to avoid this conclusion except the entire thing. In effect, Holm is objection to a state of affairs that already occurs and seems naturally good in many respects.

To close out the Holm analysis, it is clear that the “Shadow” argument does not provide a good reason not to clone. Holm’s analysis is quick, clever, and completely irrelevant to any kind of moral analysis, but it makes for great speculation and wonderful drama. In the most recent Star Trek movie Nemesis Captain Jean-Luc Picard has an evil clone that is trying to destroy Picard and Earth. The Romulan created clone, Praetor Shinzon crackles to Picard that he cannot live a full life until Picard is dead, for while Picard is alive Shinzon is just his shadow. Holm’s argument is widespread, but this does not make is sound. Needless to say, Picard and Shinzon are not living the same lives, are not being compared, and are not living the same moral life. So although Holm’s argument makes for great science fiction, cinema, and rhetorical objections to cloning, it does not make for a cogent reason not to clone.

In addition to Holm’s psychological shadow argument, the NBAC employs a similar psychological harm argument against the permissibility of cloning. Even though the NBAC argument is similar to Holm’s, it will still be useful to look at it and see the merits and faults of this psychological harm argument.

(PsHA): A Psychological Harm Argument

(1) A child that is the result of cloning is a child that is deprived of uniqueness.

(2) Depriving a child of uniqueness is to cause psychological harm to the child.

∴ (3) Cloning a child will cause psychological harm to the child.
It is clear that to get to the conclusion that cloning is morally impermissible, will require the addition of premise (1) from (PPSA): If an action, \( A \), will probably cause harm to others, then it is wrong to perform the action, \( A \). One can grant this premise for (PsHA) just as easily as one did for (PPSA). The more import issue is whether or not premise (1) and premise (2) of (PsHA) are true.

Premise (1) is an interesting premise in that it seems that its truth requires the truth of genetic determinism—sometimes called biological determinism, which we have already seen in Holm’s argument. Genetic determinism is the general thesis that the traits of a particular organism are the direct result of the genes without influence from outside sources like environment and society or culture. Several philosophers and evolutionary biologists argue against the thesis of genetic determinism.\(^94\)

Richard Lewontin, a biologist, makes a simple case for the falsity of genetic determinism. He says rather clearly that there are changes that occur in the makeup of the individual, and thus even the fingerprints of identical twins are different and hence not identical. He then claims, “the ethical problems raised by the question of individuality would disappear if it turned out that cloning a set of genes did not reproduce the same ‘person’ from whom they were taken, but simply another different individual….”\(^95\) As much as I would like Lewontin’s remark to be true, I think he is too optimistic in his conclusion, especially when one looks at the number of citations to and reprints of Holm’s article there are in the cloning literature. Many still think this is a reason not to clone even when they know that genetic essentialism is false.

A philosopher, Philip Kitcher, takes a different line of objection to genetic determinism. He claims that if Locke’s theory of personal identity is right, then the “megalomaniacs need not apply.”\(^96\) It its most simple form, Locke’s theory of personal

\(^94\) Both papers can be found in Human Cloning edited by Barbara MacKinnon. Philip Kitcher, “There Will Never Be Another You” and Richard C. Lewontin, “Cloning and the Fallacy of Biological Determinism.”


\(^96\) Philip Kitcher “There Will Never Be Another You” found in Human Cloning edited by B. MacKinnon, page 56.
identity requires that mentality in one instance be the same and connected in the right way with whatever body it is contained in. This simple explanation of personal identity explains why we are the same person when we wake from sleeping as well as explaining the intuition that if someone else had all our thoughts, then that person would be us. So a clone would have to have the same consciousness as the person from which the cloning material was claimed for the clone to have the same personal identity. Since transferring mental states is currently not possible, there is no need to worry about issues of immortality chasing from the rich and famous. Kitcher does, however, give an additional objection as to how a clone would be different from its genetic ancestor, and this is supposed to be the last bit of evidence for the falsity of genetic determinism.

Kitcher claims that a person clone, like Dolly, call her Polly, “would differ from her nuclear mother as a twin in three ways: different cytoplasm, different womb, and different after birth environment.” For these three reasons Kitcher claims that a donor and its human clone will be less alike than a pair of human, identical twins. And more importantly cloning technology will allow us to learn more about phenotypes and phenotypic traits and how the develop. So it seems clear that premise (1) of (PsHA) is false thanks to the falsity of genetic determinism.

What about premise (2) of (PsHA)? How is it that depriving a child of uniqueness is to cause psychological harm to the child? Let us grant that it is true that a clone is not unique, what is it that is so harm inducing about this that does not already occur in the normal family setting? Holm claims that if we clone someone, then “at every point in the clone’s life there would be someone who had already lived that life, with whom the clone could be compared and against whom the clone’s

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97 In fact, this is what the Raelians believe they can achieve with human cloning. They think that one can achieve immortality via cloning if they can transfer consciousness from one body to the next. They do not have the ability to transfer mental states, but they believe it will come soon enough.

98 Kitcher, p. 57.
accomplishments could be measured.\textsuperscript{99} And this act of comparison is what creates the psychological harm.

Holm’s claim requires the truth of genetic determinism as well for it to be a cogent defense of premise (2). It does not appear that this is a very good objection to human cloning, but is it true so that it can support premise (2)? Let us look at some examples of what Holm might have meant. Having a brother, sister, or father that was a great scholar, athlete, or musician will always give rise to comparison whether the child is a clone or not. The four year younger brother of the school valedictorian or state champion quarterback has big shoes to fill and an even larger shadow from which to step out of. It seems that no matter who we are we are living our lives in the shadows of someone else. Current and future United States Presidents live in the shadow of Lincoln and Washington, while philosophers live in the shadow of Plato, Aristotle, Kant, Frege, and Hume. Perhaps instead of standing in the shadows and worrying about how one will get out of the shadow, we should think like Newton when he wrote in his letter to Robert Hooke: “If I see further, it is because I stand on the shoulders of giants.”\textsuperscript{100}

Nevertheless, if premise (2) of (PsHA) is to be defended with any veracity, it is going to have to be shown that a child that is not unique in every way is some how harmed psychologically. I fail to see how the non-uniqueness premise is one that will successfully defend an argument that concludes that human cloning is impermissible. There are additional arguments from deontologists that try to use this same lack of uniqueness premise. I will evaluate it again there, but it seems that independent of the ethical theory one uses, this premise is false and cannot justify a claim about the impermissibility of human cloning without additional premises.

**Societal Harm Arguments.** These arguments come in four basic forms. The first is the claim that rampant human cloning will upset the natural order of human reproduction and leave the human gene pool worse off than it is with regular human


\textsuperscript{100} Newton, Sir Isaac. Letter to Robert Hooke, February 5\textsuperscript{th}, 1675/1676.
reproductive methods. The second form of the argument has to do with how family relations will be affected. That is, the concepts of family will have to be redefined and motherhood and fatherhood will change as well as the cultural heritage of particular people and families, and this is a societal harm. Most importantly there will be something lost in family relations that will harm the family and hence society as a whole. The third societal harm argument claims that human cloning that is funded with public money is a waste of or improper use of that public money. That is, there are better ways to use public funds than to spend it on the reproductive whims of those that cannot conceive; the cost is too great for the benefit of too few. The final form of the argument has cloning lumped in with eugenics plans. That is, cloning will be the “new eugenics” for the 21st century; and this is just as morally impermissible as the eugenics programs of Hitler’s Nazi Germany some sixty years ago.

The second kid of societal harm argument occur in many of the religious ethicists’ arguments against human cloning, so I will leave explanation and evaluation of these arguments until the next chapter, which deals with religious arguments and human cloning. As for the first objection about the depletion of the gene pool as a result of human cloning, it is not a cogent argument against human cloning. First, the human gene pool is so large, there are currently over six billion people on the planet, that the extent to which human cloning will or could stagnate the gene pool is greatly over-exaggerated.

The third societal harm argument is one that is probably most intuitive to lay people, especially those that are interested in public policy and the management of their tax dollars. The objection states that human cloning would divert scarce resources from other more important social and medical needs. This is a fairly good objection if one thinks that (a) the only money that is used for cloning research is public money, (b) that private money should be used for public goods over private goods even capricious private goods, and (c) that reproductive cloning is the only result of money spent on


\[102\] LaBar, 1984 and Callahan 1993 make this argument.
human cloning research. One obvious reply to this objection is that the financial resources of private individuals can be used in any manner that they see fit, and if one takes human cloning to be a fertility and reproductive issue, then the inappropriate use of scarce recourses argument is not as cogent as it might first appear. People can spend their money any way they want within limits, and if a couple wants to spend the money on themselves, then there is no good reason to require them to perform some supererogatory act and give that money to charity. Secondly, cloning research in terms of therapeutic cases is not a diversion of scarce societal resources as reproductive cloning might be, and the results of the research cloning may lead to long term benefits in other parts of the medical field: Parkinson’s disease, Alzheimer’s disease, and spinal chord injuries just to name a few. So even though this is a fairly cogent objection to human cloning in terms of scarce public resources, it is not an objection to all types of human cloning. If the proponent of human cloning simpliciter wants to object to the cloning process, then objection to the funding of the cloning process with public money is one step removed from an objection to the cloning process, and thus is not a cogent objection to human cloning. For an objection to cloning to work it needs to be against cloning in particular, not against the funding of such a project.

The last societal harm argument is one that is, in many ways, counterintuitive. Calling human cloning the new eugenics and then claiming that it is a harm is something that is a bit strange. The word eugenics comes from the Greek word eugenes or wellborn, and was coined in 1883 by Francis Galton, a cousin of Charles Darwin, who applied Darwinian science to develop theories about heredity and “good” or “noble birth,” which does not seem like a harm. If we take eugenics in its original sense, it is concerned with being well born or having a noble birth. In this sense, eugenics plans are an attempt to make society as a whole better by making its members better. This can be done on a small scale; one person at a time or it can be a worldwide effort, like the extermination of smallpox with a vaccination effort.

There are also different kinds of eugenics programs both positive and negative. Negative eugenics uses marriage restriction, sterilization, or custodial commitment of those thought to have unwanted characteristics for human reproduction, and cloning is
certainly not this kind of eugenics program. Positive eugenics tried to encourage the population perceived as the "best and brightest" to have more offspring. Eugenics fears are somewhat warranted in this day thanks to the recent history of Germany, Hitler, and "the final solution" to The Jewish Question posed in World War II. Clearly, the fear of eugenics brings up the memories of Hitler in many of the WWII generation and their children. The question is: “Is cloning something that should be avoided because of past eugenics programs that were designed to eliminate particular races of people?” It seems that it should not. Plus, cloning in its current formation can only duplicate a particular genome. If one takes a genome and repairs it, and then puts it into an empty egg and gestates it to create a new person, it is not strictly speaking a clone, but some form of improved genotypic relative: brother or sister depending on the sex.  

So it seems that the societal objections are not as cogent as they first appear. As long as the eugenics programs do not get to the point where diversity of phenotypic and genotypic traits are disallowed, the cloning parts of eugenics programs seems to be morally unproblematic. This is not to say that I support the use of eugenics programs, but to claim that cloning is not, strictly speaking, eugenics. And since cloning is not eugenics, eugenics fears cannot be a successful objection to human cloning. This leads to my last harm argument, wrongful life or the Non-Identity Problem as it is most often called.

**Non-Identity, Wrongful Life, And The Parfit Problem**

Some of the most compelling arguments against human cloning as well as objections to other biomedical techniques come in the form of some harm argument or other. Although I have not presented harm arguments for cases other than cloning, it seems that on most ethical views the avoidance of harm is a primary concern for moral evaluation. The problem with cloning and stem cell research harm claims is that there does not seem to be a morally relevant entity to which harm can be assessed. And if there is some harm assessment possible, then a reply generally comes in the form of a

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103 It could also be a son or daughter depending on what the other relation involved are. I will evaluate some rather persuasive argument about family lineage in Chapter III.
simple rejoinder: If there had not been any cloning, then the clone, that is supposed to be harmed, would not have existed in the first place. If the clone would not have existed, then in a simple sense, there is not a harm to the clone as long as the clone’s life is worth living. This leads to the questions: “Can you harm someone that does not exist?” It seems so. But, if the only way for that person to exist is by the harming process and that life is still a life that is worth living, have you harmed the person and if so, is the harm beyond morally acceptable means? The simplest way to try to get clear on the possible answers to issues of wrongful life and the non-identity issue will come in the form of examples.

The choices people make every day have a tremendous impact not only on the actual people that will live in the future, but which people with live in the future and the kind of lives that those people in the future will have. This can be shown in two simple examples. At the young age of 18 Jack and Jill decide to abort twin fetuses they conceived together. But 7 years later at the age of 25 Jack and Jill decide to have a child together now that they are more secure financially. Assume that they both went to college and have professional type jobs. Not only have the decided on the different number of children they are having, one rather than two, but it is a different child altogether. The kind of lives that the people in the future have depends on the choices that we make today as well. If we decide to go to war with some foreign nation and drop nuclear weapons on the people of that nation, then it will affect the way people in the future live in that area. There may be dramatic environmental consequences to dropping nuclear weapons on foreign nations. There are less dramatic decisions that illustrate the same point and are more likely. If the Colorado River Water Commission decides to invoke certain legal measures to restrict the amount of water that the state of California can use, then the future people of southern California will be affected, but the more important question now is how is this issue relevant to human cloning.

Since the biggest set of objections to human cloning is that cloning will be a harm, it is important to explain to whom cloning is a harm. One of the more interesting

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104 Clearly it will affect the number of people that live as well, but this case is just supposed to show that actions can have an effect on how people live as well.
philosophical questions is: “Can cloning be a harm to the clone if the clone would not have existed otherwise?” There does not seem to be a clear-cut answer to this question for several reasons. First, there is the problem of determining the kind of harm. Second, one has to decide what it is to have a life worth living. Finally, one has to argue that there is some kind of right to not be harmed in this way if it is a harm at all. This debate is not new to the philosophical literature, but there has not been a lot of discussion on the topic. What I plan to do in the rest of this section is explain the Non-Identity Problem (NIP), show that cloning is not an instance of wrongful life, and that there is a coherent answer to NIPs.

Let us begin with a brief explanation of the traditional Non-Identity Problem. There are three different cases that will be presented and the same harm is involved in all three. What has to be determined is if these three cases differ morally. The cases are: the preconception case, the prenatal case, and the postnatal case.\footnote{The first two cases are adopted from Parfit, Woodward, McMahan, and Smolkin. The final case is my attempt to show that this issue is relevant to human cloning. Some of the more sophisticated solutions to NIP are cashed out in terms of rights. Since I will be dealing with rights claims in Chapter IV, I will revisit the issue there. In this sections I will focus on the issue of harm and consequentialist solutions to NIPs.}

**Case 1: The Preconception Case**

A couple believes it to be the case that they may have a genetic predisposition to have a child that would be mildly retarded and request screening before they try to get pregnant. A negligent physician tells them that they are fine and can conceive naturally. They have end up having a child that is mildly retarded. Now, if the screening had been carried out properly and the genetic defect determined, then the couple could have elected to have an IVF treatment that would have given them a child that was not mentally retarded, which is what they wanted since they had the screening done in the first place.

Now there is some harm to the child since it is mentally retarded. And there is some harm to the parents in that they have to extra burden of raising a child that is mentally retarded. The question is: “Has the physician done something wrong?”
Intuitively then answer is “Yes” the physician was negligent, and thus is morally blameworthy. In the legal debates, the child could sue the physician as a “wrongful life” case. So, our intuitions tell us that the physician has definitely harmed the child and the parents, but it is the child’s harm that is most important. Let us look at a similar case.

**Case 2: The Prenatal Case**

In the prenatal case we have a couple where the wife is eight month pregnant. Their physician, knowing that the wife is pregnant, negligently prescribes a medication that causes the child to be born mildly retarded.

Given a consequentialist moral framework for evaluating these two cases, the same morally objectionable outcome is created: a mildly retarded child. In the prenatal case, if the physician had not been negligent in prescribing the medication, then in a very natural sense, then same child would have been born, but it would not have been mildly retarded. The interesting fact is that in the preconception case, if there had been no negligence on the part of the physician, then a different child altogether would have been born; that is, the child would have had a different genetic make-up. It is this difference about the preconception case that Parfit calls the Non-Identity Problem. In essence NIP is a problem about harming something that will not exist if there is not the harming action in the first place, and this is exactly what happens in the case of human cloning. No cloning, no child. If there is cloning, then there is a child.

The moral assessment that most people have about the preconception case is that the negligent physician’s actions are not something that the child can claim to have been harmed by. Why? Because the child would not have existed otherwise. But in the case of the prenatal case, the child in question does have a case against the negligent physician because the child would have been born normally if the physician would not have been negligent. The same cannot be said if the retarded child in the preconception case. But what is it that feeds this particular moral intuition? Jeff McMahan has provided just such a principle to try to explain why the preconception case is not a bad morally as the prenatal case. It is what I call the “Non Existence Not Better Claim.”
The Non Existence Not Better Claim: (NENBC) “To exist with a life that is worth living cannot be worse than never to exist at all.”\textsuperscript{106} So in the preconception case, the retarded child is better off than not existing and so the negligent physician is off the morally hook so to speak. But NENBC does not apply to the prenatal case because the same child would have been born despite the negligence of the physician. The same intuition behind the difference in the cases can be seen if we look at a third case: The Postnatal Case.

Case 3: The Postnatal Case

Consider that a child has just been born and the physician (or a parent\textsuperscript{107}) decided not to (or to give) some medication to the child, and that this will cause the child to become mildly retarded. If the medicine had been given (or not given), then the child would have developed normally and not been mildly retarded.

This case is more like the prenatal case. There is a child that is born and whether or not the child gets the medicine will not affect the identity of the child, but it will affect some of the properties of the child. So, we have the same intuition that if the negligent physician gives some medication that will cause (or fails to give some medication that prevents) the child to be mildly retarded, then the negligent physician is morally blameworthy. And in the resulting child could have grounds for a lawsuit against the physician for the negligence in question.

Now that we have seen the kinds of cases that arise, let see if the principle that is behind the intuition that the prenatal and postnatal cases are worse than the preconception case is a principle for which adequate justification can be given.

Upon reflection NENBC just seems false. There are plenty of would-be mothers that make the following sincere claim: “it is better that I did not have my child than that I did. Or things are better off that I had the abortion than if I had not.” These are


\textsuperscript{107} For Christian Scientists not giving medical attention is the only way to go, and this is why most people, including those that run hospitals and the federal government think that children of Christian Scientists should be treated.
sincere beliefs people who have aborted fetuses or who have had miscarriages believe: the non-existence of the child was in fact better than if the child had existed. So even though McMahan has an explanation as to why we think of the cases differently, NENBC seems false.

In addition to being false on an intuitive level there is another issue with NENBC: The “worse” in the claim does not tell us who is worse off. Is the worse is for the child? This is a possible answer. Or is the “worse” for others, like the parents and society at large? It is very difficult to tell given the way that McMahan presents the principle. Let us look at some additional ways to look at NIPs and see if there is a solution to the problem that does not require one to accept NENBC. There are three basic strategies that one could employ to try to deal with NIP cases: Parfit’s “No Difference View” solution; harm based solutions, and rights based solutions. Let us begin with Parfit since he formalized the problem in the first place.

**No Difference View.** Parfit has an interesting take on these two cases that he calls “The No Difference View.” Given that the outcome is the same in each case (that an individual is caused to exist with a disability), it makes no difference that in one case the outcome is worse for the individual whereas in the other case it is not. Parfit claims that the fact that an effect is worse for people, or bad for them, is never part of the fundamental explanation of why the effect is bad. The area of morality “concerned with beneficence and human well-being,” Parfit writes, “cannot be explained in person-affecting terms.” It must instead be explained in impersonal terms.”

So, according to Parfit’s no difference view, the fact that an action is bad or worse for someone is not a part of the explanation why its effects are bad. As a result, an action may have bad effects, and thus be seriously morally objectionable, even if there is no one for whom it is worse or bad for in any way. Thus if Parfit is right, the alleged fact that prenatal injury is worse for the future child does not explain why it is bad to injure a fetus of a potentially cloned child; nor can one infer from the claim that an early abortion of a monstrous clone is worse for no one that it is not bad. What we can get from the no difference view is that early abortion or destruction of potential

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clones is no worse than contraception because there is no one for whom it is worse, but prenatal injury has a victim. Not everyone is going to agree with Parfit on this view. So, we need to look at cases that consider harms as the motivating factor as a solution. **Harm-based Objections.** One way to try to get clear about why we think the preconception case is morally wrong even though it is different from the other cases is to claim that there is a victim in that case. This is contrary to Parfit’s view, but seemingly a reasonable position to take. Matthew Hanser has written the following: “that an agent is morally accountable for someone’s suffering a harm, by virtue of having performed a certain action, seems a perfectly intelligible “person-affecting” explanation why his action is objectionable.” ¹⁰⁹ So if cloning is a harm to the child, then it is morally objectionable even though there would not have been a child if there had not been an instance of cloning.

Now the objection to human cloning in these cases is that it is a harm to the clone that it is a clone. The reply is just that the clone would not exist if there had not been a cloning process. So, what is it about the act of cloning that makes it a harm? One can think of it in terms of the following cloning analog. In the preconception case, which is the cloning case, the negligent physician’s action is a causally necessary condition for the retarded child’s (clone’s) existence, but it does not seem to be the cause of the retardation (the harm), anymore than the act of conceiving a predictably ugly child is the cause of the child’s ugliness. If one know that an ugly child will be harmed by being ugly, then it seems that the child is harmed by the fact that the child is ugly, but is it the case that the parents who have ugly making properties in their genes which they passed on to the child are blameworthy for the harm caused by the ugliness? It seems that they are not. So if the clone is harmed in a way that is out of the control of the parents, say, teasing by the society at large, then it is not a harm done by cloning that is the problem.

There is a problem with identifying the clone as a victim. That is, if the negligent physician action (or the cloning parents) action is not a harm because of the way that harms are assessed, then the harm based solution to the NIP fails because the

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physician or parent’s action is not a harm. Thus, the harm-based approach fails because it has no explanation of why an act that is assumed to cause a harm ought not to be done even when it also causes compensating benefits, where the benefits could be anything from generating a life to saving a life by cutting off both legs. So, the central objection to the harm-based approach is that it cannot explain why the Negligent Physician’s action is wrong if the harm it causes is outweighed by compensating benefits. This leads us to inquire into another model for solving NIPs.

**Rights Based Solutions:** There are several ways to try to get a solution to NIPs, and we have seen that Parfit’s solution is odd, and harm-based solutions create a problem for themselves. Another way to try to solve NIPs is to claim that the reason that the child (or clone) is mentally retarded (or harmed) is to claim that the child’s rights to a particular kind of life have been violated. An appeal to rights gives us both a victim and a reason to think that all the cases are morally objectionable because certain rights are violated. But since rights arguments are not the kind of arguments I want to deal with under the rubric of “harm” arguments, I will leave “rights” analysis of NIPs until Chapter IV, where I will be dealing with rights based objections to human cloning.

**Consequentialism Conclusion**

It seems clear that whether or not one is a rule or act consequentialist or what general theory of value one adopts, there is something positive and hence good in the idea of both human reproductive cloning and human therapeutic cloning. The pleasure that can come from saving lives and curing diseases in the long run will outweigh any bad consequences that may occur at the time. If you are a rule consequentialist, then you have far more time to wait than if you are an act consequentialist, but it does not matter as long as more good has come from human cloning than bad. And in terms of medical advancements and the like, it seems far more likely that they will come than not. And since it seems fairly straightforward what benefits there are possible for the medical advancements, it seems unnecessary to list them at this time. For this reason, I

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110 Three notated attempts to use this model come from Dorin Smolkin, James Woodward, and Dan Brock.
will not present the argument in defense of cloning on the side of consequentialism, for the arguments against human cloning are not cogent enough to have a ban on either reproductive human cloning or research and therapeutic human cloning.

**Deontology**

Historically, the theoretical rival to utilitarianism is deontology. But it should be noted that deontology as presented by its greatest defender, Immanuel Kant (1724-1804), came before the utilitarian doctrines of both Bentham and Mill. What is important to understand about deontological theories is that they do not claim that the moral worth (or goodness) of an action is contained in or derived from the consequences of that action. In fact, there can be bad actions with good consequences as well as bad actions that have good consequences. This is a rather colloquial way of talking about moral states of affairs, but to the deontologist, there is a better way to explain where moral worth, the goodness of an action, comes from than by appealing to the consequences of the action; ultimately, for the deontologist, especially Kantian deontologists, the consequences do not matter to the moral evaluation of some action. This coupled with the general objection to character based ethics (explained below), that character does not make or create the moral worth of an action either, leaves us with a limited set of possibilities. In his *Groundwork of the Metaphysics of Morals* Kant claims “the good will” is the source of all moral worth. He writes at the start of Section 1 of the *Groundwork* the following:

> It is impossible to think of anything at all in the world, or indeed even beyond it, that could be considered good without limitation except a **good will**.

Understanding, wit, judgment and the like, what every such talents of mind may be called, or courage, resolution, and perseverance in one’s plans, as qualities of temperament, are undoubtedly good and desirable for many purposes, but they can also be extremely evil and harmful if the will which is to make use of these gifts of nature, and whose distinctive constitution is therefore called **character**, is not good.\textsuperscript{111}
So the important difference between the deontologist and the utilitarian is the fact that outcome is primary to the latter and not to the former. And it is clear that Kant does not think that virtues or character are not the condition of the good of anything else. The good will, according to Kant, is the condition for the goodness of everything else. Duty reigns supreme for the Kantian deontologist, not consequences and not character.

In his *Groundwork*, Kant thinks that he is moving from our common moral cognition to a supreme principle of morality—the Categorical Imperative, (CI). In fact, he gives us five versions of his categorical imperative, which he thinks are all the same logically. This is important in the cloning debate for several reason: First, if Kant’s Categorical Imperative really is the supreme principle of morality, then cloning would be permissible or impermissible only if it followed from (adhered to) or conflicted with this supreme principle of morality. And the question then becomes: “Does cloning satisfy or accord with the Categorical Imperative?” Second, one of the major objections to cloning is couched in a fundamentally Kantian framework. This is, we should not treat people as means, and the opponents of human cloning claim that one clones only if one treats someone as a means. There is a third reason that Kantian ethics is relevant to the human cloning debate. Kant thinks that what it is to have moral status is to be a moral agent. So even though there are Kantians that think that cloning is impermissible, there are some that think it is permissible because the clone is a potential moral agent. Ultimately, we need to briefly review Kant’s ethical theory and see what kind of objection come from Kantian ethics in a broad sense. What we find is that given a different version the Categorical Imperative will give rise to a different interpretation of the moral permissibility of human cloning. For this we need to consider the different versions of Kant’s Categorical Imperatives.


112 This is a fairly easy objection to discharge. It is based on a misunderstanding of Kant, and I shall explain it below.

113 We will see if this is both a necessary and sufficient condition for moral status later in Chapter V. But for now suffice it to say that what Kant defends is not as good an objection to human cloning as some might want it to be.
Kant’s Categorical Imperatives

A categorical imperative is an imperative statement of the following kind: You ought to do action A. It is categorical because there are no exceptions to it, and it is an imperative because it commands one to action. It is different in its force from a hypothetical imperative, which has the following form: If you desire A and B is required to achieve A, then do B. Examples are easy to come by: “You ought to keep your promises” or “You ought not to lie” are examples of a kind of categorical imperatives. If one wants to learn how to play the guitar and obtaining a guitar to practice on is required to achieve guitar playing, then one should obtain a guitar if one wants to learn to play it. This kind of conditional is a hypothetical imperative. The reason the distinction between the kinds of imperatives is important is that one has to follow a categorical imperative because, for Kant, it accords with reason and it is what duty commands. Because humans are rational, it is part of our duty to act from reason; and we should act in such a way that the action is in accord with our duty. These rational moral actions derived in conjunction with the categorical imperative are different from why one would follow a pragmatically inspired hypothetical imperative about how to play an instrument, where one is only acting in order to fulfill some desire, which may or may not be rational.

Kant has in his *Groundwork* five versions of the Categorical Imperative.\(^{114}\) I want to briefly explain and talk about each one because much of the current debate in biomedical ethics takes each of the principles seriously.\(^{115}\) These principles have really shaped most ethics debates including most of the bioethics debates, and how this influence works is more easily understood after we get briefly examine the Categorical Imperatives as Kant presented them in the *Groundwork*.

\(^{114}\) Some Kant scholars think that there are only four versions of the CI, but I will claim that there are five and show how general moral principles are derived from them.

\(^{115}\) It might not be the particular Kantian Categorical Imperative that is being considered in some bioethics contexts, but the principles in question are extensionally equivalent to or can be derived from one of Kant’s Categorical Imperatives.
The Formula of Universal Law (FUL)

FUL: “Act only in accordance with that maxim through which you can at the same time will that it become a universal law.”\textsuperscript{116}

The FUL version of the CI is the first version that Kant provides the reader. And what follows is a listing of the other versions of the CI and a defense of the claim that they are the same principle.\textsuperscript{117} From these CI, we are supposed to be able to deduce when an action is morally right by applying what Kant called the Contradiction in the Will and the Contradiction in Conception tests.\textsuperscript{118} It is not, however, necessary for us to know these tests in detail. What we need to understand in the case of FUL is that one can only act on that maxim that one could will to be a moral law that everyone would have to obey. If one cannot will it or if it could not be a universal law, then the maxim of the action is not something that would have moral worth. The second version of the CI, is the following:

The Formula of Universal Law of Nature (FLN)

FLN: “act as if the maxim of your action were to become by you will a universal law of nature.”\textsuperscript{119}

\textsuperscript{116}Kant, \textit{Groundwork}, 4:421, p.31.

\textsuperscript{117}I do not want to delve into Kant scholarship and try to argue that the four, five or six versions of the CI are all the same, or derivable from one another, or extensionally equivalent. There are plenty of places to go to engage in this debate. What I want to establish with these five versions is something less grandiose: I just want to show that these principles give rise to concepts that are used, as separate concepts, in biomedical ethics arguments in general and cloning argument in particular.

\textsuperscript{118}The Contradiction in Conception test claims that if willing the maxim to be a universal law, the concept generates a contradiction then the action is impermissible. The best example of the contradiction in conception test is the lying promise example: If I make a lying promise to get money that I know I cannot pay back and will it to be a universal law, then the concept of promise making will break down because no one will ever loan money again because promises are never kept. In essence there is something about promises that if they are never kept, they will not work. The Contradiction in the Will test just claims that if one cannot will the maxim of the action as a universal law, then the action is not permissible. It is less clear what Kant means by willing and what would constitute a failure of will. A clear case of a contradiction in the will would be where one recognizes that a maxim should be a universal law, and willing at the same time that one should make some arbitrary exception to the maxim in one’s own favor.

\textsuperscript{119}Kant, \textit{Groundwork}, 4:422, p. 31. The bolding is Kant’s.
FLN is very similar to the FUL version of the CI and generally they are written together as one principle by adding “law of nature” to the end of the FUL version. Presumably, since they are both the CI, it is clear that this principle is equally held to the contradiction in conception and contradiction of the will tests when it comes to determining how to act. In our case, we are concerned with whether or not cloning is morally permissible. Since FLN and FUL are so similar, I am going to consider them the same and generally use the FUL version of the CI and often add “law of nature” without distinction. But the most quoted or misquoted versions of the CI are those of the third version of the CI, The Formula of Humanity as End in Itself.

**The Formula of Humanity as End In Itself (FH)**

FH: “So act that you use humanity, whether in your own person or in the person of any other, always at the same time as an end, never merely as a means.”

Many people have claimed that what Kant said here is that we cannot use people as means. But it is clear from the text of this quote that what Kant said and means is that we cannot use people merely as means to some end. We have to treat people as ends even when we are treating them as a means, and this treating refers to all of humanity including oneself. One of the objections to cloning is going to hinge on this very version of Kant’s CI. Namely, when one clones a person, what one is doing is treating that person as a means and not as an end. This could be the case in instances where a clone is created in order to harvest its organs in order to save five other people. A consequentialist might say that this action was good because five were saved, but I doubt it, and the deontologist on the other had would object that we are using the person merely as a means. This objection is cogent only if doctors would perform both clonings and transplants in the manner described and that seems unlikely with the other medical advances that are occurring. Plus, just because there is a possible bad consequence to some action, does not mean that that action should be made illegal or considered immoral, especially to a deontologist. There are more problems with using

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120 Kant, *Groundwork*, 4:429, p. 38.
FH as principled objection to cloning, but more on that below. Another principle used in ethics debates involves the concept of autonomy, and Kant has a formula of the CI that involves autonomy as well.

**The Formula of Autonomy (FA)**

FA: “Act in accordance with a maxim that can at the same time make itself a universal law.”\(^{121}\)

It should first be noted that this quote of Kant’s is not what he explicitly identifies as FA. In fact, there are at least fifteen different stylistic variants of FA in the Second and Third Sections of the *Groundwork*. He also says: “the idea of the will of every rational being as a *will giving universal law.*”\(^{122}\) This quote is difficult to understand, but it seems that it is not really a moral principle itself. That is, it is a ground for a moral principle like FUL. These claims are, however, controversial and many pages have been penned on these Kantian subjects. What gets taken from Kant’s FA version of the CI is that there is something special in the fact that people are autonomous in certain ways: people have free will. It is through this autonomous nature that one acts or is capable of acting in a way that is moral. And if there is cloning going on in some instances, then, as the objection to cloning goes, there is a loss of autonomy by the clone by being a clone. This is a long row to hoe for the opponent to cloning, and in the end, it does not look as if there is a real loss of autonomy by the clone, but more on this below. The fifth version of the CI is as difficult as the last to formulate.

**The Formula of the Realm of Ends (FRE)**

FRE: “Act in accordance with the maxims of a universally legislative member of a merely possible realm of ends.”\(^{123}\)

This passage is the most cryptic of the formulas, and it is not really useful for our cloning analysis. What is useful is that once again Kant has spoken in terms of

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\(^{121}\) Kant, *Groundwork*, 4:437, p. 44.


\(^{123}\) Kant, *Groundwork*, 4:439; cf. 4:432, 437, 438.
universality, and this is a concept that will reappear in several of the argument assessing the moral permissibility of certain kinds of cloning techniques. For this reason as well as historical inclusion it is instructive to have the FRE version of the CI in the discussion.

Kant is not the only deontologist from which to choose our moral principles. In fact, there are many modern Kantians and other deontologists that take as primary something other than the categorical imperative as primary when talking about the duties that govern the permissibility of actions. Let us look at some of the objections to human cloning based that are Kantian in spirit as well as those that are just deontological.

**Categorical Imperative Objections To Human Cloning**

Of the five Categorical Imperatives three of them give rise to possible objections to human cloning: The Formula of Universal Law of Nature, The Formula of Humanity as End In Itself, and The Formula of Autonomy. I shall briefly explain how each of these formulations of the CI gives rise to an objection for the opponent of human cloning: The Formula of Humanity as End in Itself, the Formula of Autonomy, and the Formula of Universal Law.

**The Formula of Humanity as End in Itself.** This is one of the most misquoted and misused versions of Kant’s categorical imperatives. And before I begin an analysis of what it might mean for the moral permissibility of cloning given FH version of the CI, it is important to discharge a misunderstanding of the principle, which can be seen most clearly in the writings of C. Ben Mitchell. I shall call Mitchell’s objection to cloning the “Humans as means to an end” (HAE) objection. Mitchell writes, “Human beings may not be used as means to our own ends.”\(^{124}\) This is meant as one of the foundational principles for which human cloning should not be done. Mitchell’s statement is clearly false—we use humans to our own means all the time—and his statement is a good example of poor philosophizing in the sense of not knowing what a particular principle

is or how it is to be used. I am not just claiming that Mitchell’s moral principle HAE is empirically false; I am claiming that it is conceptually false as a moral principle.

Mitchell has Kant in mind when he makes his claim about not using people as means to our own ends, but what Kant actually said was: “So act that you use humanity, whether in your own person or in the person of any other, always at the same time as an end, and never merely as a means.” What Kant said, and it is often misunderstood and misquoted, is that we cannot use people merely as means. We can use people as means to certain ends, but it cannot be that we use them merely as means. We have to understand and treat people as ends while we are using them as means at the same time. I do not want to go into what Kant means by this claim nor do I want to defend it, for I am not sure what exactly it would take to always treat people as ends, but what I do understand is that there is no good moral reason for one not treat people as means, as long as that person is not treating the other individual merely a means.

Mitchell may have another objection in mind when he wrote his HAE principle, and that is, we cannot clone individuals and harvest their body parts. This would be an instance of using people as merely a means. This position is intuitive enough that we cannot harvest human body parts just for the parts and discard the individual, but it seems that there will be at least one way to object relevantly to this position without having to misquote or misapply Kant’s famous moral principle, but more on this later. Clarifying this misquotation is an important point to make because there are so many critics of cloning that just get things wrong in large part because the do not understand what FH is supposed to cover. Let us now see if there are any good objections to human cloning on behalf of FH.

The important question with respect to the cloning debate is: “Can the FH version of the Categorical Imperative give rise to an objection to human cloning?” It is an empirical question as to whether or not people will treat human clones as ends in


126 Alex Kahn and C. Ben Mitchell are just two such examples. The mistake is so common that many non-Kant scholars make the mistake. But to reason using this mistake is where an objection is warranted.
themselves or if they would treat them merely as ends. Many people that put this argument forth are concerned with scenarios as *The Boys From Brazil* and *A Brave New World* cases where a slave cast is created and people are treated as mere means. It seems, however, that as long as clones are not identified in any public way—a scarlet ‘C’ on the forehead—there does not seem to be any in principle reason to think that clones will be treated any differently than other moral beings. They will be loved, hated, respected, and disliked. They will have the same range of treatment that most individuals have in a given society. So, as long as we realize that we *can* treat people as means sometimes, and it is only that we cannot treat people merely as means that is relevant to this Kantian Categorical Imperative. So it seems that human cloning does not fail to meet this moral principle, and it is permissible given FH.

**Formula of Autonomy.** Let us begin with the Formula of Autonomy. It is claimed by some opponents to human coning that if you clone a person, then that person is not going to be autonomous. There are several versions and defenders of this argument. Is this a good objection? It seems that it is not a good objection. There is no evidence to the claim that a human clone would not be autonomous in a manner that is relevant for moral consideration, especially in the Kantian sense. If one is a rational, moral agent, and there is no reason to think that a human clone who is healthy could not be a rational, moral agent, then that clone would be autonomous. In many cases there are some deontologists that defend human cloning for the very reasons that a human clone would in fact be an autonomous rational agent capable of moral agency.

Sometimes there is a worry about uniqueness that gets lumped in to the autonomy debate. For example Babu writes, “Any person who is replicated *ipso facto* ceases to be unique and irreplaceable as his/her spare copy exists.” Walter Glannon is worried about a different kind of cloning with respect to humans being used as a means to some end. He thinks that if the point of human cloning is to replace a child

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127 Joel Feinberg, Hans Jonas and Søren Holm are three such people that present a version of this argument. A more complete list to follow.

that has been lost, then this violates the Kantian CI of FA and FH. He writes, “A human being is no a mere extension of its parents or siblings, and to treat him or her as such is to violate the intrinsic dignity and worth that they possess in virtue of the fact that they are human agents with the capacity for reason.” Glannon thinks that the same goes for cloning cases where the desire it to get a child with particular cognitive or physical traits.

When one speaks of cloning as replacement, I am not convinced that it is always a case of violating the categorical imperative. There are several senses of ‘replace’ that occur in such argument against “replacement” human cloning. One sense is that it is to replace as to take the place of in terms of the mental and emotional capacities that were held by the deceased person. Now this is not the only sense of what it means to be a replacement. Perhaps the parents had decided to have five children for some reason, basketball games with the family across the street perhaps. If this were the case, and the only thing that was wanted was a replacement child, then there does not seem to be anything wrong with cloning if cloning is the only way to get a fifth child. One surely would not object if the parents of a deceased child decided to get pregnant again. And if this is so, then why would we deny them the opportunity to clone especially if it is the only way that they could conceive again? It seems that one should not deny this possibility. But of course all this gets into why and when should people be allowed to have children, even clones, which is a different question altogether. Granted there is something in the cloning case that seems odd or even perhaps morally impermissible, but just wanting to replace a child is not what is bad even if it is a child that has the same genetic make up as the deceased child. If use of the same genome is desired, then it might seem even worse, but why is this the case? And one could not use the uniqueness objection if the clone is the only one with the genome. Ultimately it seems that this objection rests on an equivocation of what is meant by ‘replace’. But what is important on Kantian grounds is that we not treat the person merely as a means, and that

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seems compatible with any use of cloning even those cases where there is a replacement issue at hand.

Now I have talked about the violation of the Kantian maxim in terms of reproductive cloning. There are those that believe that even therapeutic cloning will violate the relevant Kantian maxim. Alex Kahn writes the following:

The creation of human clones solely for spare cell lines would, from a philosophical point of view, be in obvious contradiction to the principle expressed by Emmanuel Kant: that of human dignity. This principle demands that an individual—and I would extend this to read human life—should never be thought of as a means, but always as an end. Creating human life for the sole purpose of preparing therapeutic material would clearly not be for the dignity of the life created.\textsuperscript{130}

Kahn is a molecular biologists and he did help draft the French National Ethics Committee report on cloning, but these credentials make him neither a philosopher nor a Kant scholar. Kahn just gets the Kantian principle wrong. Plus there is no clear sense in which one can claim that the cell line that is created from stem cells and the like are persons. And if we buy into Kahn’s version of the Kantian principle, then even innocuous medical advances like blood donation and transfusion will be immoral. This is clearly a reductio against this particular version of the argument. When it comes to cloning cells for therapeutic purposes, there are only two real issues that one should be concerned with: (i) the cloning procedure will harm existing people, or (ii) the cloning would undermine or violate the essential humanity of those that donated the cells. The former is contrary to the point of therapeutic cloning, and the second is just a misunderstanding of personal identity. If one of my cells flakes off my hand and dies, I do not die as well. There is more to personal identity than just having a bunch of living parts, and so if one of my parts is used in a certain way that may not be dignified for a complete organism, it does not mean that I have had my essential humanity violated.

It seems that there is not a good Kantian objection on the basis of autonomy or uniqueness that can be given against human cloning. To cite Kant again may help bring this point home:

For, nothing can have a worth other than that which the law determines for it. But the lawgiving itself, which determines all worth, must for that very reason have a dignity, that is, an unconditional, incomparable worth; and the word respect alone provides a becoming expression for the estimate of it that a rational being must give. Autonomy is therefore the ground of the dignity of human nature and of every rational nature.\footnote{Kant, \textit{Groundwork}, 4:436, page 43.}

So it should be clear from this passage that a psychologically moral clone would surely have the capacity for moral agency, which Kant refers to as a necessary and sufficient condition for dignity, and it is the case here. So if one is going to try to object to human cloning on Kantian grounds, it is going to have to be ground different that the one currently given. Let us move on to the final version of the CI that may generate an objection for human cloning on behalf of the Kantian deontologist.

**Formula of Universal Law.** Since this version of the CI is very similar to the second version of the CI, the Formula of Law of Nature, I shall treat them as one and the same. FUL has a very technical method of determining if the maxim of some action, cloning in this case, is consistent with the Categorical Imperative. The two tests that Kant provides are the Contradiction in the Will test and the Contradiction in Conception test.\footnote{See note 118 above for the Contradiction in the Will and the Contradiction in Conception tests explanations.} It does not seem that if the maxim of a particular act of cloning for reproductive or research purposes was cashed out correctly that it would either fail the contradiction in the will test or the contradiction in conception test. There is noting in the act of reproduction by cloning that is a contradiction of the will and similarly, it does not seem that if a human cloning action were willed, that it would be contradictory to the concept of cloning. Thus, it seems that on at least one very natural understanding of both cloning and Kant’s categorical imperative, the act of human cloning passes the
Categorical Imperatives and is morally permissible give a Kantian framework. There are other modern deontologists that might have objections to human cloning on grounds of justice or given some other moral principle of duty. For now, suffice it to claim that the best deontological argument presented against human cloning have been presented in the name of Kant, and we can see that those that object to cloning with Kant do so mistakenly. There are, however, those that defend human cloning and they do so with a Kantian moral framework. Let us now move on to the final moral theory under consideration, Virtue ethics.

**Virtue Theory**

When one is considering what moral theory to adopt, one of the guiding principles is: “Does the theory get right answers in tough cases?” Some of the general criticisms of deontology and consequentialism generate from a worry about what constitutes a particular harm or when is the greatest good achieved or to what degree does one have to follow rationally some rule about how to act in a certain situation. Some deontologists, Kant in particular, make bold claims like it is never acceptable to tell a lie under any circumstances. This seems to go against our general moral intuitions that it is sometimes acceptable to lie to very small children, to our enemies during war, and to avoid hurting someone’s feelings. Consequentialism has its problems as well; the problems stem from the epistemological to the metaphysical requirements of knowing when something will create the best state of affairs. But I am not going to recount the difficulties of both deontology and consequentialism here. Suffice it to say that here is a rival to both these traditional theories that arises out of the works of Aristotle. It is concerned with the virtues, and it is called virtue theory and sometimes virtue ethics. It is this type of ethical theory that I want to examine in the light of human cloning issues to see if it provides more guidance than the other theories.

One simple, and not fully appropriate, way to think of a virtue based ethical theory is to claim that what is right or good is just what the virtuous person would do. This, however, is not very useful in guiding actions in particular moral dilemmas. But it is good for trying to get people, especially doctors and nurses, to behave in a certain
manner. And since one of the important aspects of virtue theory is moral education, it is not that strange to note that medical associations and the like have used virtue based theories when writing their codes of medical ethics.\textsuperscript{133}

In what follows, I will present some of the classic tenets of virtue theory as presented by Aristotle in his \textit{Nicomachean Ethics} as well as some modern elucidation by Rosalind Hursthouse.\textsuperscript{134} The academic literature with respect to cloning and virtue theory is almost nonexistent—\textup{I know of no published account of virtue theory dealing with human cloning in particular.}\textsuperscript{135} What I shall do is provide a defense of human cloning based on a virtue theory model that will rely heavily on an analogy with abortion, since there has been more written on virtue theory and abortion from which to draw. Let us begin with an overview of what exactly virtue theory is with a brief historical look beginning with Aristotle and then moving to a general view of virtue theory presented by Hursthouse.

\textbf{Aristotle\textsuperscript{'}s Virtue Theory}

Aristotle believed that the supreme practical science is politics of which ethics is but one part. What is important to know or understand at the start of any inquiry, according to Aristotle, is: “What is the purpose or telos of the thing under investigation?” He thinks that every action, art, and science aims at some goal, and so the good is that for which those things aim rightly. And if one is interested in understanding right conduct, then one has to understand what the conduct of a good life aims toward. Ultimately for Aristotle, the end or goal of human life is to well-being,

\textsuperscript{133} The American Medical Association\textup{’}s first code of ethics in 1847 emphasized the virtues, and this continued until the 1980 version where most of the virtue talk was eliminated. But the International Nurse\textup{’}s code is still laden with virtue language.

\textsuperscript{134} Three additional influential virtue theorists are Elizabeth Anscombe, Philippa Foot, and Alasdair MacIntyre.

\textsuperscript{135} This could be the result of two different and unrelated phenomena. First, the cloning issue is an applied ethics issue, and most virtue ethicists do not deal with actual moral dilemmas except for the rare cases of Foot on euthanasia and Hursthouse on abortion. Second, virtue ethicists may not be interested in the cloning debate.
flourishing, or happiness all of which are captured by the Greek word Aristotle uses, *eudaimonia*.

For Aristotle there are four kinds of lives that one can live, but only one of them is constitutive of a good life. Lives of pleasure, honor, and wealth are not the kinds of lives that are worth living in themselves—one cannot flourish in these lives. The life of pleasure is fit for only slaves and beasts. The life of honor is the object of a political life, but honor is not something that one can achieve alone; honor is bestowed by others and thus cannot be the aim of a good life. The life of wealth is one that takes a means, wealth, as an end, but for Aristotle wealth is just a means and not the end of a good life. The life of contemplation is what Aristotle considers to be the goal of a good life for humans. He argues for this view in Book X of the *Nicomachean Ethics*.

Aristotle’s uses, what is commonly called, the function argument, as a way to defend his view that the contemplative life is the best life.\(^\text{136}\) The argument states that the good of man is his function. From here Aristotle claims that the function of man is rational activity of the soul. The reason he thinks that the function of man is rational activity of the soul is because he believes that what ever is particular to a thing is that thing’s purpose, and since man is the only rational animal, thinking or contemplation is what is both particular to humans and their function. From this point in the argument all one need to know is that functioning well is what good things do. And to function well is to function in conformity with the virtues or in conformity with excellence.\(^\text{137}\) So, the function of man is rational activity of the soul in conformity with virtue.

How one obtains a moral theory from the function argument may not be completely clear, but there is a way to get what we need from Aristotle to understand his moral theory. For Aristotle one acts virtuously if (i) the person knows what she did, (ii) she chooses the act for its own sake, and (iii) the act is the result of some permanent disposition. And for a completely good action, there are two conditions: (a) the act

\(^{136}\) The Function Argument can be found at 1097\(^b\)25 of the *Nicomachean Ethics*.

\(^{137}\) Aristotle’s term is *arête* which means excellence or virtue.
should be the right thing to do under the circumstances and (b) it should be done from a
good motive.

Now one needs to understand that there is one more important part of Aristotle’s
view on what constitutes a good action and that is his “doctrine of the mean”. Quoting
from Aristotle will prove useful in explaining what he means by ‘mean’.

...for it is [moral virtue] that is concerned with passions and actions, and in these
there is excess, defect and the intermediate (meson). For instance, both fear and
confidence and appetite and anger and pity and in general pleasure and pain may
be felt both too much and too little, and in both cases not well; but to feel them
at the right times, with reference to the right objects, towards the right people,
with the right motive, and in the right way, is what is both intermediate and best,
and this is characteristic of virtue. Similarly, with regard to actions, there is also
excess, defect and the intermediate. ¹³⁸

So what one has is an explanation as to what exactly one should do and feel in certain
respects with regards to certain actions. One should feel the right amount at the right
times and in the right degrees. Acting rightly is just doing the thing that should be done
in the situation that is neither an excess nor a deficit. In an effort the define the mean
more precisely, Aristotle writes:

In everything that is continuous and divisible it is possible to take more, less, or
an equal amount, and that either in terms of the thing itself or relatively to us;
and the equal is an intermediate (meson) between excess and defect. By the
intermediate in the object I mean that which is equidistant from each of the
extremes, which is one and the same for all men; by the intermediate relative to
us that which is neither too much nor too little -- and this is not one, nor the
same for all. For instance, if ten is many and two is few, six is the intermediate,
taken in terms of the object; for it exceeds and is exceeded by an equal amount;
this is intermediate according to arithmetical proportion. But the intermediate
relatively to us is not to be taken so; if ten pounds are too much for a particular

¹³⁸ Aristotle *Nicomachean Ethics* 1106ᵇ¹⁵-1106ᵇ²⁵. Translated by W. D. Ross and reprinted in *The Basic

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person to eat and two too little, it does not follow that the trainer will order six pounds; for this also is perhaps too much for the person who is to take it, or too little -- too little for Milo, too much for the beginner in athletic exercises.\textsuperscript{139}

So this mean that Aristotle speaks of is not a mathematical mean, but a mean that is gathered from the virtues in a way that will be relevant in certain situations with respect to how one acts. In an effort to provide examples for us to understand this doctrine, Aristotle writes about the virtue of courage thusly: “With regard to feelings of fear and confidence courage is the mean; of the people who exceed, he who exceeds in fearlessness has no name (many of the states have no name), while the man who exceeds in confidence is rash, and he who exceeds in fear and falls short in confidence is a coward.”\textsuperscript{140} When it comes to right conduct in any situation, the virtuous person acts in a way that is not an extreme, for the situation. But what constitutes an extreme in a certain situation will vary just like the variance of food for the average person verse the athlete that must consume more food. For Aristotle, the most important virtues are courage, temperance, pride, and justice. Of the four important virtues for Aristotle, it seems that temperance, pride, and justice will be the most relevant for understanding how one may act in a given situation with respect to reproductive cloning as well as research and therapeutic cloning. I will take these virtues into account below, but for now I want to examine how one virtue theorist deals with an applied ethics situation, namely abortion.

**Hursthouse, Virtue Theory, and Abortion**

One might claim that Aristotle’s virtue theory is flawed in so many ways that it is not worth using as a model for ethical decision making when there are good theories like deontology and consequentialism around to do the theoretical work for the morally uncertain. But there are many modern virtue theorists that take steps to defend a virtue ethics in a coherent way. On such philosopher is Rosalind Hursthouse.\textsuperscript{141}

\textsuperscript{139} Aristotle, *Nicomachean Ethics*, 1106\textsuperscript{a}15-1106\textsuperscript{b}10

\textsuperscript{140} Aristotle, *Nicomachean Ethics*, 1107\textsuperscript{a}30-1107\textsuperscript{b}5
In her widely read article, “Virtue Theory and Abortion,” Hursthouse presents a skeletal view of virtue theory and then explains how the issue of abortion is handled in such a theory by changing the focus of the abortion debate. Since human cloning and virtue theory have not been written about in one coherent paper, book, or note, I will take what Hursthouse presents in her paper and create a limited defense of cloning given a virtue theoretic model.

The first thing Hursthouse does in her paper is provide a view of virtue theory that is both representative of most virtue theorists, but her explanation does not constitute a full blown theory and allows for dealing with practical moral issues like abortion, euthanasia, and most importantly for us cloning. She takes the following three propositions to be essential to any good account of virtue theory.

**P1:** An action is right if and only if it is what a virtuous agent would do in the circumstances.

**P1a:** A virtuous agent is one who acts virtuously, that is, one who has an exercise the virtues.

**P2:** A virtue is a character trait a human being needs to flourish or live well. Principle P1 gets one a conceptual link from right action to a virtuous agent, while P1a explains what a virtuous agent is. The second principle, P2, provides the link between virtue and living well or eudaimonia. So, what one has is thanks to Hursthouse is a way to get right action connected with living well in a way that is both efficient and compelling.

In her article, Hursthouse is concerned with the issue of abortion, and in that debate she contends that there are two areas of discussion that generally occur: (i) the status of the fetus and (ii) women’s rights. She rightly claims, “If one thinks within this

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141 Hursthouse has three books dedicated to virtue theory. *Virtues & Reasons, On Virtue Ethics,* and *Beginning Life.* The first is dedicated to the writings of Philippa Foot, the second to virtue theory in general, and the last to virtue theory as it relates to issues like abortion.


143 Hursthouse, (1991), p. 225. She then writes in a footnote on the same page: “It should be noted that this premise intentionally allows for the possibility that two virtuous agents, faced with the same choice in the same circumstances, may act differently.”
familiar framework, one may well be puzzled about what virtue theory, as such, could contribute."\textsuperscript{144} The same thing can be said of the human cloning debate if we replace the fetus with a clone. If the cloning debate is couched in terms of the moral status of the clone or in terms of reproductive rights, then there does not seem to be a lot that virtue theory could contribute, but we shall see that redefining the debate will be what virtue theory has to offer in a way that is informative to those trying to make decisions about whether or not reproductive cloning or research and therapeutic cloning are morally permissible.

She thinks that the first issue about the moral status of the fetus (clone) she thinks takes ethics too far into metaphysics, and she claims not to want to deal with the metaphysics. She also does not think that ethics should wait for the right metaphysical doctrine to come about in order to make a right decision about abortion. She writes, “the status of the fetus—the issue over which so much ink has been spilt—is, according to virtue theory, simply not relevant to the rightness or wrongness of abortion [cloning] (within, that is, a secular morality).”\textsuperscript{145} It is surprising to think that the status of the fetus, or the clone in our case, is not what is important to the abortion or cloning debate, but a compelling case can be made on behalf of the virtue theorist.

As with the second issue of women’s rights, or more widely reproductive rights, an issue I shall deal with at great length in Chapter IV, Hursthouse claims that discussing the morbidity of abortion is her aim and not the rights and wrongs of the laws allowing or disallowing abortion. She then makes the following salient point:

\[S\]upposing only that women have such a moral right, nothing follows from this supposition about the morality of abortion [cloning], according to virtue theory, once it is noted (quite generally, not with particular reference to abortion [and cloning]) that in exercising a moral right I can do something cruel, or callous, or selfish, light-minded, self-righteous, stupid, inconsiderate, disloyal, dishonest—that is, act viciously.”\textsuperscript{146}

\textsuperscript{144} Hursthouse, (1991), p. 234.

\textsuperscript{145} Hursthouse, (1991), p. 236.
So there is not, according to Hursthouse anything in particular that we can conclude from virtue ethics with respect to the moral permissibility of abortion, and I claim analogously, with human cloning, other than that in exercising a particular right, whether it be a reproductive right or some other right, one can do so in accordance with or not in accordance with the virtues. But what one could think about the cloning situation is that there is something special about the continuing of a particular family line that could be seen as virtuous. Hursthouse sums it up perfectly when she writes, “[t]he first question a virtue theorist should consider is: “How do these facts [about abortion and cloning] figure in the practical reasoning, actions and passions, thoughts and reactions, of the virtuous and the nonvirtuous?” With respect to abortion or cloning we have to ask the next question: “And is this life of hers a good life?” or “Is she living well?” It is this topic that I shall take up now by explaining what a virtue theory argument for human cloning might look like.

**Virtue Arguments And Human Cloning**

Since there have not been any published accounts explicitly taking up the cloning issue under the guise of virtue theory, I am going to have to create arguments that are analogous to arguments presented in other debates for which virtue theorists are concerned. Continuing her discussion about abortion, Hursthouse writes the following, which I take to be essential in any argument that one might give in defense of human cloning via virtue ethics.

I mean such facts as that human parents, both male and female, tend to care passionately about their offspring, and that family relationships are among the deepest and strongest in our lives—and, significantly, among the longest-lasting. This particular quote is in a way an admonishment of capricious abortion. But since reproductive human cloning is something that is the creation of life and not the

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elimination of life like abortion, there is an asymmetry in the reasoning. What might be seen as partial opposition to abortion, can in fact, be used as partial support for some cases of reproductive cloning. Hursthouse goes on to write: “The familiar facts support the view that parenthood in general, and motherhood and childbearing in particular, are intrinsically worthwhile, are among the things that can be correctly thought to be partially constitutive of a flourishing human life.”

If one knows that a woman cannot have a healthy child any way other than by cloning, then this seems to be the kind of support that one would give from a virtue theoretic model. Of course there is the reply that one can always adopt a child instead of cloning a child, but in a footnote, Hursthouse states, “In this connection I also discuss adoption and the sense in which it may be regarded as ‘second best,’ and the difficult question of whether the good of parenthood may properly be sought, or indeed bought, by surrogacy.”

So even though Hursthouse thinks that there are cases in which abortion may not be the best way to flourish, there are cases in which it is morally acceptable for the virtuous person to have an abortion. But she does claim that there are some cases of abortion that are performed, but are done so, but the circumstances that surround the abortion are circumstances that the virtuous person would not have gotten herself into in the first place.

I take it that the most cogent defense of reproductive cloning, for a virtue theorist of the type of Aristotle or Hursthouse, will come in the form of claiming that reproduction of an offspring is a necessary condition for human flourishing. Of course in the modern world one might claim that there are many people and many ways that one could flourish or live well. Since there is this plurality of flourishing options, there are going to be lives that flourish and do not have children. And if this is the case, that one case flourish without children, then there is prima facie evidence that one need not have children by means of cloning.

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This is a worry that the proponent of cloning rights might have to face. But it does not seem reasonable to say to a couple whose only means of reproduction is via a cloning procedure that they cannot have that procedure done, and that they should try to flourish in a different manner. Granted there are many cases of human cloning where it does not appear that it is what the virtuous person should do: the narcissistic millionaire that wants an exact copy, the couple that wants to clone a deceased child, or the government that wants to clone warriors. All of these uses of reproductive cloning are not consistent with the virtues, and there is little disagreement among any of the ethical theories that any of these uses of cloning are wrong. The real issue is whether or not there should be a complete ban on human reproductive cloning, and the answer seems to be “no” from a virtue theoretic approach.

So the virtue theory defense of human cloning will come down to asking if given the situation is cloning what the virtuous person would do. It seems that there is no good reason to think that this is not the kind of action that the virtuous person could do in order to achieve some measure of human flourishing. If, however, the question is turned to research and therapeutic human cloning, the issue seems to be less clear on what the general issues are, but more clear on the permissibility of the action.

Since virtue theory is not concerned with the moral status of the fetus or clone, it does not have or does present a prohibition of the use of stem cells, aborted fetuses, and early clones for research purposes. If these research attempts are conducted in a model where the actions of the researchers are virtuous, then the act of research and therapeutic human cloning are well within the bounds of moral permissibility.

**Virtue in Biomedical Ethics Debates**

Tom Beauchamp and James Childress have been at the forefront of the biomedical ethics debates, and they have a widely used text on the subject.\(^{151}\) In their discussion of virtue theory in the medical profession, they list five virtues that they feel

are relevant to medical ethics: compassion, discernment, trustworthiness, integrity, and conscientiousness.\textsuperscript{152}

If one wants to move the cloning debate from the individuals that want to clone, to the issues of how should those professionals that are going to be caring for the parents and the clone should behave, then we need to talk about these virtues as a focus point in the cloning debate. In many ways this is a shift in the cloning debate from the permissibility of the cloning act itself in terms of human flourishing to an issue about how professionals should act, but this is relevant in at least one respect to the overall cloning debate: it can rebut some of the earlier objection to human cloning that are based on harm arguments.

If compassion, discernment, trustworthiness, integrity, and conscientiousness are some of the virtues that healthcare providers have to have, then there is good reason to believe that some of the alleged harms that a human clone might face will not materialize. There is an obligation to be compassionate with the information that some individual is a clone or that some particular couple wants to clone. This plus the requirement to keep medical records private, an integrity issue, requires that there be some kind virtuous action on behalf of the healthcare provider.

In the end, there are many uses for the virtues in the cloning debate and in biomedical debates broadly considered, but for now it seems best to try to keep the virtue talk at the level of the individuals that want to clone and not those that will perform the medical acts of cloning. For if it is the case that reproductive or research cloning is morally permissible, then it does not seem to matter morally who performs the procedure. This point is similarly made in cases of withholding aid. If it is permissible to withhold aid, then it does not matter if the person that withholds the aid is a doctor or a family member.

\textbf{Objections To Human Cloning A Review}

Thus far I have explained the three dominant ethical theories: consequentialism, deontology, and virtue ethics. From these three theories one gets different views on the

\textsuperscript{152} See Beauchamp and Childress (2001), chapter 2.
moral permissibility of human cloning in part because each moral theory determines the moral permissibility of some action by appealing to different properties of the agent’s action, the agent’s motives or intentions, or the agent’s characteristics. Moreover, one learns that the reasons for objecting to or defending different types of cloning can be motivated from different senses of permissibility.

In the case of consequentialism, the objections to human cloning come in the form of harm arguments. These harm argument can be of the psychological, physical, familial, or social harms. When it comes to research or therapeutic cloning, it seems clear that there is good reason to think that the goods or benefits that will come from the research will outweigh the harms that might occur. When it comes to reproductive human cloning, the issue is not as clear. The psychological harm to the clone may make a particular life not worth living. Plus, there are the additional social and family harms that may occur. The arguments that have been presented by Søren Holm and others, are not persuasive as a reason to have a ban on reproductive human cloning. From a consequentialist point of view, there can be good reason to both clone and not clone, but ultimately the decision will be made on the side that the most good is done.

Intuitively deontology seems to be the moral theory of choice to bring down all attempts to justify human cloning as a research tool and as a method of reproduction. But the intuitive deontological arguments that have been presented fail to do the job for the opponent of human cloning because there is generally a misunderstanding of one of the Kantian principles. We can treat people as means, it is just that we cannot treat people merely as means. With this potential objection out of the way, the only other requirement for deontologists is the requirement for moral agency.

Since human cloning does not deny the clone its moral agency, there is no reason to suspect that one would not be treated with full moral status. Moreover there does not appear to be any violation of any of the other Kantian moral principles that would bar human reproductive cloning. There are too many surprising facts about the alleged deontological defense for a ban on human cloning.

Finally we have the virtue theorist. Some take virtue theory to be silent on issues of practical moral value, but as we have seen, thanks to Hursthouse, there is good
reason to think that in some cases there are instances where human flourishing could require that cloning be permissible. These cases in particular are instances where some couple is incapable of having children in any other manner than by way of reproductive cloning. This is something that the virtuous person could do in a manner consistent with even the most cardinal of virtues.

There may be more arguments for or against human cloning that one could give on behalf of these three theories, but from the current literature, these are the general arguments that have been presented on behalf or by certain moral theorists. By no means are these the only arguments in support of or in opposition to both reproductive and therapeutic cloning, for there are many religious arguments and legal arguments left to tackle in the next two chapters.

**Philosophical Arguments Conclusion**

From the ethical theories of the 17th century on, there has not been a consensus about what constitutes right action, how it is measured, or what grounds that moral code. What is clear from the preceding chapter is that there are many ways that one can define moral conduct, and there are many ways in which a person could claim the moral worth of some person, action, or event can be decided. What I hope to have shown is that from these theories general objections to human cloning, both research or therapeutic and reproduction, arise as well as, defenses for these actions. Nevertheless, there are ways of dealing with the particular objections of any one ethical theory in at least some instances. There is, however, a more interesting question that none of these secular theories have made clear from the outset, and that is the concept of moral status. What I mean by moral status is that quality or property that is attributed to some entity as either a moral agent or moral patient. Take for example an ordinary rock. Very few people would claim that a normal human being has any moral obligation to a normal rock. This is to say that it lacks any moral status. This is not to say that a rock could not have some moral status if it were, say, a special rock from the Moon or Mars or if it were the oldest known rock on Earth. Then as an artifact, it would have some special status that might be considered in a weak sense moral.
I mention this because it seems that all the moral theories discussed can give us approximate answers to many of our everyday moral situations. The theories tend to breakdown under the stress of theoretical cases or at least cases that are not as clear or that may be sensitive to the initial setup of the case. For example, take the classic case of abortion. If one takes it that a fetus is granted full moral status at conception, then it is rather reasonable to think that abortion is *ipso facto* unjustified killing of the fetus, Judith Jarvis Thomson style arguments aside. If, however, one thinks that a fetus does not become a moral patient much less a moral agent until after some cognitive ability has been reached, then early term abortion is not something that one’s moral theory will deem impermissible. So what seems to be lacking in much of the human cloning debate is a well-formed definition of what constitutes moral status. In Chapter V, after an analysis of a modern version of moral status presented by Mary Anne Warren, I show the failings of her proposed definition, and then defend my own definition of moral status as topic neutral with respect to any moral theory when it comes to moral status. This will allow one to understand the human cloning debate in a new light as well as to see how one might deal with other borderline cases of moral status in ethically difficult situations. But before I get to the subject of moral status, I need to venture into the realm of religious ethics to see if there are any relevant objections to human cloning that come from the major religious traditions. This shall be the topic of the next chapter.
“I would certainly say that the pious is what all the gods love, and the opposite, what all the gods hate, is impious....Consider this: Is the pious loved by the gods because it is pious, or is it pious because it is loved by the gods?”

Thus far in this dissertation I have provided philosophical arguments against human cloning given three dominant ethical theories: Consequentialism, Deontology and Virtue Theory. But much of the cloning debate is not set in a world that is purely secular or philosophical. There are those involved in the cloning debate who do no take a secular approach, and they have theoretical commitments that require a different ethical standard of evaluation. With the wide-ranging religious beliefs that span the globe, I cannot take all their religious positions on the cloning issue into account. What I will do is try to show that the religious consensus is not as widespread as some might think. In fairness and for full disclosure I admit that I do not find many of these religious arguments for preventing the cloning of humans very convincing. Thus I need to take special care not to hand-wave these arguments away, and I must present them as persuasively as I can.

Since so many people in our society basis their morality upon religious foundations, one has to look at these foundations to see if there is a relevant objection or defense for human cloning. So we will have to spend some time in the realm of religious ethics. Plus, it could be the case that the opponents to cloning have the right conclusions, but for the wrong reasons, or at least reasons that are metaphysically dubious at best.

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What follows in this chapter is an explanation of some of the larger religious traditions and their views on human cloning. I shall begin the discussion with an introduction to religious arguments in general, move on to some general objections that should be discharged immediately, and finally move on to the particular ethical arguments of the various religious traditions.

**Religious Arguments and Ethics**

Ethical arguments founded in religious doctrine have been around for as long as beliefs in a god have. For many philosophers, however, these arguments are fundamentally flawed; and this has been pointed out nicely by both Plato and Russell. The age old question as to whether God does something because that thing is good or if the thing is good because God commands it is a powerful question that leads the religious reeling for a better explanation as to why one should act a certain way. We have *The Holy Bible*, the *Torah*, and the *Qur'an (Koran)* all claiming to present the word of God in a way that requires certain kinds of moral action, and these are just the dominant western religions. The Hindu and Buddhist as well as Native American religions may have a say in the cloning debate as well, and their voices are no less important just because their numbers are smaller or their beliefs older and out of fashion. In fact, some Native Americans want to support reproductive human cloning as a possible method of preserving their race. So I will take the time to briefly explain the fundamental religious tenets of a given faith and see how their views fit into the cloning debate. What we will find is that there is much agreement among the religions, but there is not a universal disavowal of human cloning or cloning research. This chapter will follow a slightly different model than the last; I will first present the religious views provided by some of the more dominant religions of the world. I will then present arguments that have been gleaned from particular beliefs of the religious ethics explained. Some of the argument

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154 See Plato’s *Euthyphro* and Russell’s *Why I Am Not A Christian* for arguments against religious and Christian ethics.

155 On of the classic example is to ask oneself if God had let Abraham kill Isaac on the mountain instead of the ram, would it have been good? See Kierkegaard’s *Fear and Trembling* for some insight on this matter.
A Religious Introduction

Since there is a plethora of religious opinion about human cloning and cloning research, I shall attempt in this chapter to determine what factors, beliefs, values, and norms the dominant religious traditions have that could be gleaned to help facilitate informed public opinion and policy about the human cloning debate, both research and reproductive cloning. It seems that there are many members of the debate that are not exactly clear as to why a particular group has the views they have on the issues of cloning. Now, if there is to be any progress in the cloning debate—that is, assuming the participants want progress, which might be asking too much of them—then there are going to be some fundamental principles, mainly religious principles, that are going to have to be abandoned, modified, or have other moral or political principles trump them in the decision making process as to whether or not cloning should be a permissible activity. This may not be something that the religious thinkers want to do, but it might be necessary if they want to remain in the bioethics debate in a pluralistic society that is supposed to be run in a secular manner.

Some of the arguments that religious traditions provide are not very compelling, but they are based on foundational principles, which the tradition cannot abandon. When this occurs I do not see any way around the problem short of abandoning the religious tradition or dogmatically embracing the consequences of the foundational principle, and we will see some instance like this below. Before I begin the analysis of some of the dominant religious traditions, I want to get four general objections to human cloning out of the way.

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156 A similar problem occurs in both the euthanasia and abortion debate. But I shall argue that in the case of human cloning there is no parallel. Euthanasia and abortion are the termination of human life, in the broadest sense of human life, and cloning is the production of human life. So I will argue below that the religious ethicists have it wrong in this debate.
Four General Objection Out of the Way

Let us begin with four general somewhat religious objections to cloning that can be dealt with rather quickly: The question about clones as persons; cloning is “playing God”; cloning is unnatural; and the prima facie wrong objection. These objections are not all religious objections proper, but religious opponents to human cloning have used these arguments as reasons, primary reasons, not to clone. Thus I think this is a good place to begin the discussion about the religious argument, by getting the bad argument out of the way.

Is a clone a person? The negative answer to this question leads to an objection to human cloning: no, clones are not persons. If clones are not persons, then they do not have moral status like persons. But most think this cannot be the case because clones would be human beings, and human beings that are mature enough have moral status. So if they are human, then they can be persons. So a clone would be similar to other entities for which we are already aware. Modern science has given rise to an explanation as to how natural, identical (monozygotic) twins occur, and natural twinning does not seem to produce entities different in ontological, moral, or human status from potential clones. So the question of whether or not a clone would be a person seems a bit naïve. Nevertheless, the answer is clearly, “yes,” a clone would be a human person in the widest biological sense possible. But this leads directly to the question: “What is a person?” or “What is it for something to be a ‘person’?” Many of the debates about abortion have focused on the topic of what it means to be a person, but there has been a shift in the literature from trying to define ‘person’ to answering some bigger questions: “When does something have moral status?” or “What is it that constitutes moral status?” and even still “When does someone have a moral obligation to something?”

157 There is a fifth general objection that religious ethicists make, and that is that one cannot use someone else as a means. This is an attempt to cite the Kantian Categorical Imperative, and it is misquoted and misused. I have explained this problem in Chapter II and shown why it is an improper objection.

158 S.J. Gould makes the twin argument in his papers “Dolly’s Fashion and Louis’s Passion: Ruminations on the Downfall of a Kind and the Cloning of a Sheep” Natural History (June 1997) and “Individuality: Cloning and the Discomfiting Cases of Siamese Twins” The Sciences (September/October 1997): 14-16.
There are those that deny moral status to anything but persons, and one protestant, C. Ben Mitchell, seems to only want to give moral status to persons. Either way, however, it seems that what needs to be answered, explained, and defended are: “what is moral status?” and “how does moral status relate to his particular view of the moral status of persons.” We will see below that Mitchell’s view of what provides moral status is essentially connected to the concept “image of God,” but his criterion for moral status seems to be neither necessary nor sufficient for getting moral status as a general concept that will lead to proper ethical decision making; and I shall provide just such examples below in the “Image of God Section.” So, it should be clear, that we cannot doubt that a clone would be a human person, but we do need to know what is meant by moral status. Perhaps it could be the case that one could be a human person in the widest sense and not have any moral status, but I doubt it. Ultimately, I think that if the biotechnology debates are to move anywhere useful, there is going to have to be some consensus as to what constitutes moral status without appealing to some honorific term like ‘person’ because the concept of a person is just a confused as the concept of moral status. And because we seem to give moral status to anything that is a person, it seems best to try to eliminate that worry and go straight to the philosophical point and later define moral status.

Cloning is unnatural. One of the most common religious objections to cloning asserts that cloning is ‘unnatural’, and thus should not be pursued. But what is meant by ‘unnatural’ in these objections, and on what grounds should the unnatural be rejected on

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159 Moral status is a better term to determine these cases for it allows for entities that are not persons to have the same kind of rights and responsibilities placed upon them in moral cases. In some senses ‘person’ is a bit chauvinistic, and may not allow the kind of defense of moral actions that general moral intuitions may deem necessary. The concept of moral status allows us to involve animals and other living, but non-persons to the moral discussion. Does the environment or one’s pet have moral status would be the kind of questions that would have to be addressed in this debate. Ultimately it seems that there are going to be many things that people have a moral relationship with that are not persons, and this is important to understand. I dedicate Chapter V to looking at the issue of moral status as an ethical concept as well as a way to try to get a clear answer in the cloning debate.


161 One of the reasons this will matter is that there are cases where one group thinks that moral status beings at conception, but others do not. If moral status is some intrinsic property that one has in virtue of being a
moral ground is a question that does not seem to have a clear answer. It seems that there are at least four basic senses of ‘natural’ that religious thinkers could be using to object to cloning, they are: (a) conformity to the laws of nature, (b) being free from human intervention, or (c) conformity to some natural moral law, or (d) occurs in nature. So, something is considered to be natural if it fits into any of the four categories and unnatural if not. But will any of the senses of ‘natural’ work in this religious argument? I shall argue that none of these senses of natural will provide the kind of objection that is needed to show that cloning is morally impermissible, and that there is not any sense of unnatural that will allow this argument to work.

Since both therapeutic or research cloning and reproductive cloning are processes that conform to laws of nature, there is no way that cloning can be unnatural in the first sense, (a). This is to say that there are not any miracles, in the strict sense of miracle, which occur to allow for the cloning process to work. Cloning is a technique that, thanks to the laws of nature, we can reproduce with measurable and testable results. So it is clear that cloning is not unnatural in sense (a).

For cloning not to be natural in sense (b) it would have to be free from human action and intervention. Since everything that humans do is by definition something that they have intervened on, it cannot be that cloning is natural in the second sense, (b). But if it is unnatural in the second sense, then every human action is unnatural and very few religious groups want to accept this conclusion because it makes everything unnatural. And if everything is unnatural, then the charge of unnaturalness loses its philosophical bite. So this fact about the meaning of ‘natural’ in senses (b) makes it such that it cannot be an objection to human cloning.

human being, then clones created for research purposes may be morally impermissible. But I shall argue that this view of moral status is flawed in Chapter V.

162 I will be using the terms ‘natural’ and ‘unnatural’ in a sense where one is just the negation of the other. One might object that just because something is not natural does not mean that it is unnatural, and I would grant this in some cases depending on what sense of natural and unnatural one is using. In these cases, I think it is safe to consider something that is unnatural to be the same as something that is not natural, or at least this is what I take religious opponents to cloning to be doing.

163 There are exceptions to this claim in one special respect. Christian Scientists will not intervene in medical situations; and in this limited case, they will claim that cloning and other medical intervention by humans is unnatural.
The third sense of natural, (c), is that something is natural if it conforms to some natural moral law. There are at least two points to be made about this sense of ‘natural’. First, there are no natural moral laws that we know of or can defend in a way that is satisfactory for an objection to human cloning. Second, claiming that there is some natural moral law would beg the question against the proponent of cloning if the natural moral law against cloning is just assumed by fiat. Perhaps this reply is too quick and the religious ethicist has a reply. She might claim that there are a few natural moral laws like the Ten Commandments, but how the Ten Commandments would apply to the cloning issue are unclear at best. Other than the fact that there are not any natural moral laws for which one can appeal in order to get the unnatural argument to work, there is not a defense of definition (c) as a viable candidate for what it is for something to be natural. So the third sense of natural, (c), will not do for the opponent of human cloning.

Something occurring in nature may be a sufficient condition for that thing being natural, but I do not suspect that religious thinkers want to accept sense (d) as a definition for natural either; for if they did, then they would have to agree that cloning is something that occurs in nature with many of the world’s organisms and thus cannot be unnatural in sense (d). The only possible reply the religious ethicist might have is that higher animals, especially mammals, do not clone themselves in nature. Apart from some snakes and lizards, cloning opponents will claim that humans do not clone in nature and thus should not be allowed to clone in the lab. But once again, there are many things that mammals do not do in nature, but do in the lab and in the home—the use of electricity is just one such thing. So the unnatural objection in the final sense, (d), fails, and thus the unnatural objection fails in all four sense.

There is one additional argument about the unnaturalness of cloning: It is unnatural because it separates reproduction from human sexual activity. This would mean that anything that separates sex and human reproduction, either on the part of sex or on the part of reproduction, is both unnatural and immoral. So everything from birth control to IVF to adoption would be immoral in this sense. Now there are those groups that would be happy with accepting the consequence of the immorality of the first two cases, but not the last. Moreover, this is an odd objection because it seems that the
converse claim, where sex was the bad thing is more in line with religious traditions. Is not the sex that is the bad thing, and if so, then it seems that cloning should be a welcome addition to the reproduction choices of humans. It is a way to propagate the species without sex, and that would seem a good thing to many religious ethicists—at least as long as the couple was married.\textsuperscript{164}

There is one final point to make about these unnatural arguments presented by religious as well as other opponents to human cloning. The charge of unnaturalness seems an odd cousin to the naturalistic fallacy. Now, the naturalistic fallacy has many forms, but the most general is that it is an improper move logically to go from what is natural or what is the case to what is good or what one ought to do.\textsuperscript{165} What we have in the unnatural argument is the following general moral principle: “If some action or event is unnatural, then that action or event should not occur or is immoral.” To begin, it looks like this principle rules out the moral permissibility of miracles unless they are natural because of God, but this is not the interesting part of this principle. If being unnatural really is a sufficient condition for something that should not be done or for something to be immoral, and take any sense of unnatural one wants, then the contrapositive should hold as well—it is: “If some action or event should be done or is moral to do, then that action is natural.” I am assuming that natural and unnatural can be defined in terms of one another and negation.

Now many ethicists agree that ‘ought’ implies ‘can’, but this is not quite what we have here. What we have in the contrapositive of the unnatural argument is ‘ought’ implies ‘is’, and this is clearly false in specific cases, and thus, must shed doubt on the general principle because they have the same truth-value. For example, most would agree that if I can perform CPR on some person that needs it, then I ought or should do so. But assume that I do not provide CPR, it is true that I should have, but it is not true that I did or that the event occurred; and thus the general principle contained in the

\begin{flushleft}\textsuperscript{164} The Raelians believe that humans are the clones of extraterrestrial beings, and it is in fact our nature to learn and produce clones. I do not see why this particular religious belief is any less reasonable the those of Christianity, Judaism, Islam, or any other ancient or modern religion.\end{flushleft}

\begin{flushleft}\textsuperscript{165} See G.E. Moore’s \textit{Principia Ethica} for a more detailed account of the Naturalistic Fallacy. \end{flushleft}
unnatural argument is false no matter how one understands unnatural. This is to say that ‘ought’ or ‘should’ does not imply ‘is’ or does not imply that there is a fact of the matter just because there ought to be a fact of the matter. Let us move on to another argument that cloning is on its face wrong.

**Cloning is prima facie wrong.** Research on human embryos for the purpose of cloning is wrong on the face of it has been asserted by many ethicists, both religious and not.\(^\text{166}\) The first obvious question is why is cloning *prima facie* wrong? Is it because it is an instantiation of a more general claim: Research on human embryos for the purpose of X is wrong on the face of it, and that is why research for the purpose of cloning is wrong on the face of it?\(^\text{167}\) If so, then the general principle is false. We could substitute the claim ‘to save embryos’ for the variable X and the general claim would be false. For it seems that research on embryos, to save embryos, is a good thing on the face of it; and if not a good thing, at least it is something that is morally permissible on the face of it.

Nevertheless, if the claim is not an instance of the general claim, then there is no in principled reason to accept the *prima facie* portion of the claim; lots of thing on their faces look impermissible or false but upon reflection are permissible or true—the history of science is littered with such examples.

It might be that Mitchell’s point here is similar to Leon Kass’s in his article “The Wisdom of Repugnance.” It is wrong on its face could just be an English, stylistic variant for the intuitionist position that cloning is repugnant. But we will see soon enough that this position rests on an unjustified foundation. Since Leon Kass is one of the biggest names in the debate—he is now heading up the President’s bioethics advisory committee,\(^\text{168}\) I shall devote a section to his article ”The Wisdom of Repugnance” later in this chapter. In the end, the *prima facie* objection is not something that the opponent of


\(^\text{167}\) Mitchell does not give any reason why it is wrong other than it just seems to be wrong at first look. This is not a good objection, and since Mitchell and other do not give reasons for why they believe this claim, my attempted defense is just that, an attempt.

\(^\text{168}\) The NBAC’s charter ended in 2001, and the newly elected George W. Bush created a new Council on Bioethics on 9 August 2001 to be headed by Dr. Kass. This new council unlike the NBAC is mainly
human cloning can trot out and hope to convince people that cloning is wrong. For this reason, I will leave this objection as one that has been adequately dealt with. But there is one last objection that I would like to discharge before I move on to the dominant religious traditions explanation, that is, the “playing God” objection.

**Cloning is “Playing God”**. “Men ought not to play God before they learn to be men, and after they have learned to be men, they will not play God.” Even before the cloning debate, the objection that some action or activity was “playing God” was invoked for many reasons: fear, misunderstanding, or control. The playing God objection has been levied against everything from birth control to organ transplantation to assisted suicide. Thus, it seems that when there is an attempt to change or control some aspect of human life by a group or individual, whether social or political or religious, in a manner that is contrary to a religious view, it is considered playing God to engage in the new activity. I think Robert Lindsay said it best: “to say that this [the playing God] objection is uninformative is to be charitable.”

Courtney Campbell, however, gives five possible interpretations of the “playing God” objection to human cloning. These interpretations of the playing God do not lend themselves to naming, but I will explain them and show that none of them are reasons cogent enough to claim that human cloning is morally impermissible.

Campbell thinks that the playing God objection is a moral stop sign to scientific research and medical practices on the basis of some or all of the following attributes. (i) Humans should not probe the secrets or mysteries of life. This will in some way lead us to a “God of the gaps” and this is not something that is good spiritually or

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170 Lindsay, “Taboos Without a Clue” page 16.

171 Campbell, Courtney S. “Religious Perspectives on Human Cloning” *NBAC Report On Human Cloning* part D.

172 A “God of the gaps” is the phenomenon of using God as an explanatory bridge between some phenomena and the explanation. This is to say that whenever there is a situation that is unexplained, God is invoked as the explanation. Hence, the phase “God of the gaps.”
scientifically. It is clear that a god of the gaps or some other reason not to clone is not the same thing as playing God. So there is no clear sense in which this is an objection to human cloning.

(ii) Humans are finite and do not have divine omniscience to see what the outcomes of their work will be. Closely related is the third principle: (iii) Humans are not omnipotent, and thus cannot control the outcomes of what they are doing. What is interesting about these two claims is that no human thinks that humans are either omnipotent or omniscient. But there seems to be a conceptual problem with this issue. If it is the case that we think we are God by cloning, and these are the predicates that we ascribe to God, then there should not be a real worry. The reason is clear: if God is omniscient and he created the world the way he did, then he knows that what will be the outcome of his creation. He knows that we will want to clone humans. Moreover, if God is in fact omnipotent, then he would have the power to stop humans from deriving the ability to do the cloning research in the first place. Since God has done none of these things, it seems fair to think that there is nothing immoral, in the sense of playing God, about them. For it seems that if God were to act in any way, it would be to stop those that are acting in a way that is for God to act. These two possibilities for what it might mean to play God are not very helpful in sustaining an informed position in the cloning debate whether pro or con.

Another possible understanding of what it might mean to play God is given by the following claim: (iv) human beings have no authority to make decisions regarding the beginnings or endings of life, which is reserved to divine sovereignty. This is just the view that deciding when people live and die is only up to God. It is one of the reasons why some religious thinkers are against capital punishment, euthanasia, abortion, and birth control—even abstinence. Granted that the first three on this list are controversial, and reasons not to enforce capital punishment, not to allow euthanasia, and not to allow abortion have all been given in terms of the playing God objection. Birth control, the ability to determine when and how one wants to or not to have a child is something that we generally think individuals can decide, especially if the manner in which they decide to not have a child is by sexual abstinence. It is also generally considered appropriate to
try to have children, that is, to decide when people will live, and that is not morally impermissible. So it seems that “our ability to make decisions” about when people live is not a matter of playing God.\textsuperscript{173} This is one of the asymmetries between the cloning debate and other life ending debates that might use the playing God objection.

The final interpretation that Campbell provides is: (v) Humans are fallible and make selfish decisions as opposed to the self-giving qualities of a divine love from God. First, I am not exactly certain what kind of objection to human cloning this is supposed to provide. Secondly, it does not seem logically impossible for there to be an instance of either reproductive or therapeutic human cloning that is not selfish, but is instead an instance of some kind of unselfish love of a human kind. As a philosopher, I would like to be as charitable as possible, but there is not much in the playing God objection for one to be charitable with, and so I shall consider “playing God” as a possible moral principle in the cloning debate as at best false and at worst incoherent.

Now that I have dealt with these four common objections to the permissibility of human cloning, I want to move on to some more fundamental issues that traditional religious thought have brought to the ethics table and see how these views are relevant to the issue of both reproductive and therapeutic or research cloning. This said let us look at some of the dominant religious traditions and the arguments the adherents of these faiths put forth in the cloning debate.

**Dominant Religious Traditions**

“Religious freedom is a cornerstone of our Republic, a core principle of our Constitution, and a fundamental human right.”\textsuperscript{174}

It is well known that the United States is a bastion of religious pluralism. We are a society founded on the principles of liberty and one of the major liberties people traveled

\textsuperscript{173} In fact, we know that we have a tremendous ability to affect not only the number of people that will live in the future, but also the identities of these individuals. This ability is what leads to some of the interesting philosophical issues like the non-identity problem, which I deal with at length below.
to the United States for was and remains still, religious freedom. There is, however, a price to pay for this religious freedom: Others are free to disagree with the religious convictions one might hold. This is a most important fact, for not only are US citizens free, but their beliefs are recognized as equally important under the law. Plus, in a democratic society one has to make joint social policy decisions, and the people in the society influence the public policy, but more importantly the beliefs of the people making the policy are influenced by their religious beliefs. This fact is the main reason that I have to deal with some of the religious arguments that deal with human cloning whether or not the arguments relate to public policy or not. So, in what follows, I shall give a brief overview of some of the dominant religious traditions that are followed by citizens in the United States and explain what kind of argument each tradition bring to the cloning debate. There is not a lot of consensus among the different religions, but there are general objections that are worth investigating.

In 1990 Barry Kosmin and Seymour Lachman at the Graduate School of the City University of New York conducted the National Survey of Religious Identification (NSRI). This scientific survey of over 100,000 US citizens asked many questions about religious preference. In 2001 they did a follow up survey called the American Religious Identity Survey (ARIS) with a sample size of 50,000 individuals. This information proves useful in understanding why the reproductive debates: cloning, abortion (infanticide), and stem cell research have all gone they way they have over the last 40 years in the US.175

The data tells us that 76.5% of US citizens consider themselves to be Christian. 13.2% are nonreligious or secular, while the Jewish population is only 1.3%. From there Islam, Buddhism and Agnostics are each .5%, and Atheists and Hindus make up .4% each as well.176 The remaining 6% or so are tied up in Wicca, Native American


175 Both surveys can be found here: http://www.gc.cuny.edu/studies/aris_index.htm. The principle investigators are: Professor Barry A. Kosmin & Professor Egon Mayer. The study director, however, is Dr. Ariela Keysar. In addition to both surveys, one can see the different methodologies used and conclusions drawn from the surveys.
Religious, Scientology, Taoism, Hare Krishna and a few other religions. So the bastion of religious pluralism is working just fine in providing a place to freely practice a particular religion. The problem now is to provide a public policy that both reflects what society wants and is free of religious oppression. Part of this task can be done only after seeing where the religious traditions overlap and understanding what principles they are working with in making their moral decisions. There may be no way to avoid the violation of some religious principles in a democracy if the people decide to make some activity, like abortion, morally permissible in certain situations.

The three Abrahamic family religions that are dominant in the US are Christianity, Judaism, and Islam, with Judaism being the oldest, Islam the youngest, and Christianity the most dominant. Since these religious traditions are all descended from the same source, it would make sense that they would have the same position on reproductive cloning and research and therapeutic cloning, but this is far from the case. One reason that the Abrahamic religions do not have the same views is because they disagree on some fundamental religious issues. Islam, for example, does not separate law, ethics, politics and religion from one another—everything is subsumed under a religious heading making Islamic states essentially theocracies. So, in countries where Islam is the dominant religion and the political leaders are Islamic, the law both moral and domestic is Islamic law. Now some commentator on US policy may make the same claim about the US and Christianity, but the analogy breaks down thanks to the disanalogy between Islamic states with theocratic leaders and the republican style of government in the US, which runs via a democratic process. There is a line separating the religious from the legal in the US, and thus US courts are not religious courts. Legal judgments are not moral judgments in the way that Islamic judicial decisions are.

What I plan to do in this section is briefly review three groups of religious traditions: The Abrahamic group (Judaism, Islam, and Christianity); the Eastern group including (Buddhism, Hinduism); and the minority religions (Black American and Native American). From the explanation of these religions, one will get a chance to see that

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176 Theses numbers can vary a bit since the population of the US is constantly changing, and some religious groups like Muslims are immigrating and converting adherents at a much faster rate. The current census is 320 million US citizens, and with 3.6 million Muslims, that gets them slightly over 1%.
their views on human cloning are as different as their views on scripture, biblical interpretation, and salvation.

I know that this discussion of religious traditions may seem a bit wide of the mark especially since I am concerned with the ethical argument about reproductive cloning and research cloning. But there is a great concern that religious people have when it comes to ethical decisions; and since most religious adherents believe that God is the determiner of what is good and bad, it is these traditions that we have to look at for our moral principles for several reasons. First, and foremost, we have to look at these traditions because of the motivational control they have over their adherents, and it is the need to explain ethical motivation that has bothered philosophers for many years. In this case it seems clear that ethical claims motivate precisely because they are believed to come from God. Secondly, it is the religious traditions that lay the foundation for many of the moral intuitions that we have today. Michael Tooley makes the point well when he writes: “Many otherwise thoughtful people somehow lose sight of the fact that what they refer to as ‘moral intuitions’ regarding euthanasia (or any moral issue) sprang originally from a certain theological outlook, one that is no longer taken seriously by most people who have taken the trouble to examine its credentials carefully and impartially.”\textsuperscript{177} Whether religious beliefs are justification or not is yet to be determined in the case of reproductive cloning, we shall see if Tooley’s claim is too strong or right to the point. In the last year, there has been a surge in the desire to know and understand other religions, and this is another reason why I want to begin the look at the religious traditions and their principles beginning with Islam. After I provide a brief understanding of some of the dominant religious traditions, I will present what I take to be the best arguments these religious traditions can use as support for and against human cloning.

Islam

Islam is relatively young compared to both Christianity and Judaism, but what it lacks in age, it surely makes up for in numbers throughout the world. Islam is the fastest growing religion in the world, and it is making itself a force to be reckoned with internationally not only as a religion, but as a form of government as well.

There are two Islamic sects: Sunni, which make up 80% of the religion and Shi’ite, which constitute the remaining 20%; and they both think of Abraham and Jesus as “prophets” for Islam. Most of the religious beliefs for the Islamic faith are to be found in the writing of the Qur’an (Koran) given to the faith by the Prophet Muhammad (610CE). In the US there are somewhere between three and six million Muslims. The reason that Islam is a force to be dealt with is because Islam does not recognize a separation of religion, ethics, law, and politics. This little known fact is what drives a wedge between non-Muslim citizens and US citizens that are Muslims. For as I have said before, there is a legal mandate that religion and government be separate in the US; that is, there cannot be a state supported religion in the US. What this difference in beliefs does is keep the two groups apart, and a general level of anxiety and oppression develops between the groups.

Islam is not as oppressive a religious force as some media outlets would have us think; the pursuit of knowledge, in terms of science and technology, has divine warrant in Islamic thought (except for women). Technology, however, is not morally neutral for Islam. It can be used for wrongdoing, and one has to be very careful not to perpetuate sin with a given technology if one is Islamic, but the problems of what constitutes sin are notoriously thorny issue in Islamic thought, and it is not a topic I will discuss here.

When it comes to cloning research there are two lines of thought for Islamic believers. There are those that believe anyone that “will change god’s creation” (4:119) are sinners, and this includes any number of things from gender roles to genetic therapy. This objection has a lot in common with the “unnatural” objection for other Christian believers, which I discharged at the start of this chapter. The problem is

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\[\text{[178] This is as reported in Cambpell’s commissioned paper “Religious Perspectives on Human Cloning” for the NBAC report, Section D, page 28.}\]
that what it takes to “change god’s creation” is both vague and indeterminate. So it
makes some sense that there are those Qur’an scholars that claim that gene therapy, stem
cell research, and cloning, both reproductive and therapeutic, are not something that
contradicts the mandates of the Qur’an.

The only exception that they may allow to this passage about changing god’s
creation is if the changes are therapeutic or life promoting in intent. Now that means that
the important question for a believer in Islam is “What constitutes therapeutic and life-
promoting?” This is a difficult problem that many of the religious and non-religious
thinkers alike have to deal with, and solve. But it does seem to leave open a defense of
human cloning that is backed by the mandate of the Islamic faith.

There are two other worries that an Islamic believer will have to face and answer.
First, some members of Islam claim that an embryo has a soul at conception. Soul talk
does not make much sense in terms of moral consideration, so I will just claim that for
most of Islam, moral status begins at conception. An interesting note is that there is a
group of Islamic believers that think the soul arrives at four months. Now if we assume
that having a soul is a sufficient condition for moral status, then in both cases, conception
and four months, we have an organism that has moral status. So even Islam is split on
when an embryo is something worthy of moral status. But if one thinks that the soul is
what engenders moral status, and soul arrival does not occur until four months, then there
is good reason to think that this group of Islamic believers would think that abortion and
stem cell research are morally acceptable as long as nothing is done to an organism that is
harmful after four months.

One aspect of cloning and other assisted reproduction matters that is of interest to
Islam is that of family lineage. The use of third-party gametes for reproduction violates
precepts concerning the legitimacy of a child with respect to family lineage and
inheritance. So understanding the role of the family and how relationships are tracked is

179 Someone might claim that having a soul is a necessary and sufficient condition for something to have
moral status. But identifying the soul is difficult at best, and exceedingly anthropocentric at worst. Plus,
there are many Native American religions that will claim that animals and pieces of land have souls. If this
is the case, and having a soul is both necessary and sufficient for moral status, then Islamic behavior toward
far more important to Islamic families than it is to Christian families, but this is not to say
that there is not a worry on the part of Christians because there is. The difference for
most Christians is that they are worried about the traditional family unit and not the
family line itself. So I will just assume that this particular Islamic worry is also a
Christian worry, and deal with it in the section below about traditional family value
arguments.

Thus, it seems that Islam is not poised to accept human reproductive cloning, and
cloning research is something that would not have to damage several of their traditions to
be morally acceptable. There are several issues in the Islamic community that would
have to change for it to accept reproductive cloning or any other reproductive technology.
Since women do not have the same rights as men in most Islamic countries, cloning
might not be an moral issue as it is in the US because women do not have reproductive
rights like women in the US. Of course all of this could be made moot if one of the
Islamic clerics produced an edict that allowed for human cloning, either reproductive or
therapeutic.

Judaism

Judaism is the oldest of the western monotheistic faith traditions, and it has a
sophisticated view about the nature of cloning, both reproductive and therapeutic. Of all
the religious traditions they have been the most accepting of cloning research and the
possibility of reproductive human cloning. There are a variety of reasons members of the
Jewish faith would be for or against cloning, and both of the views reflect an influence of
the actions of Germany during WWII.

Fear of a eugenics movement is one reason why cloning research is bothersome to
some Jews. On the other hand, we have the following view espoused by Rabbi Moshe
Tendler: “Show me a young man who is sterile, whose family was wiped out in the
Holocaust, and [who is the last of his genetic line [and] I would certainly clone him.”180

some animals and land will have to be modified. It seems unlikely that this kind of behavior modification
will occur. I will deal with issues of moral status more fully in Chapter V below.

180 NBAC testimony (14 March 1997), as reported in Campbell’s “Religious Perspectives on Human
Cloning” page 10.
Thus, it seems that Jewish thought is more ambivalent than it is condemning of cloning. In what follows, I shall recount some of the moral principles that members of the Jewish faith rely on to make moral decisions, and explain why their view on cloning is the way it is. The place to begin with any discussion of Jewish moral thought is with the Genesis.

**Interpreting Genesis.** One of the problems in Jewish though is how one ought to understand Genesis. There are two possible interpretations of Genesis and the creation of the Earth that are relevant to the issue of human cloning: (i) as a completed act and (ii) as a transformative process. The former is just the claim that God created the Earth as He did in Genesis and that is how it ought to remain. The latter interpretation sees the creation of the Earth as a process where humanity is supposed to get involved and be a part of the creation of an Earth that is good. Jonathan Cohen explains it well when he writes: “If we understand God as the Creator and creation as a completed act, cloning will be a transgression. If, however, we understand God as the Power of Creation and creation as a transformative process, we may find a role for human participation, sharing that power as beings created in the image of God.”\(^{181}\) This leads me to the issue of the concept of “image of God,” which we shall see again and again in the religious faiths, but I shall leave the analysis until later in the section on Christianity. The behavior of most Jewish researchers and doctors leads one to believe that the take the second interpretation of Genesis as the correct interpretation. Additional consideration for Jewish interpretation of Genesis as a transformative process is the issue of the divine mandate from God that one tries to create a better world.

**The Divine Mandate and the Self.** Humans are challenged and commanded by God to use their rational, imaginative, and exploratory capacities for the benefit and health of humanity. This is a divine mandate, and each individual is supposed to follow it. So the question is whether or not cloning is something that our rational capacities have delivered for the health of humanity. If one thinks of reproductive cloning and cloning research from the point of view of understanding human biology better, being able to deal with disease better, and generally creating a healthier population through this knowledge, then
cloning research and perhaps even reproductive cloning is something that is divinely mandated from God for us to learn and use in a manner that is safe and for the betterment of humanity as a whole.

One of the basic worries that most of the western religions have is that since humans have inherited their worth as creatures created in the image of God, this worth could somehow be undermined by the cloning act. And even though the Talmud understands human beings as partners with God in the ongoing act of creation, there is a possible problem: the mastery of nature will lead to a mastery of humanity. And it is the mastery of humanity qua imagers of God that is heretical and an instance of human hubris. So if reproductive and research cloning are going to be allowed, then they are to be carefully regulated if they are not going to result in humanity doing to much with their divine mandate; and it is this responsibility the accompanies the divine mandate that dictates Jewish ethics. This leads to needing to understand the ethics of responsibility that is inherent in Jewish thought.

An Ethic of Responsibility. Jewish guilt is one of the oldest and funniest religious stereotypes, but in every stereotype, there is some truth. One of the reasons that guilt is such a common notion in Jewish beliefs is because of the way that Jews understand rights and responsibilities. Jewish ethics is based on responsibility and duty as opposed to an ethic of rights. One does not have rights in the traditional, American sense of inalienable rights. What one does have are duties and responsibilities, and they are primarily responsibilities to other individuals. The overriding duty is to preserve human life (from the Torah and rabbinic commentary).

The preservation of life reflects a sensitive and thought out view of how one should treat embryos, children, adults, and the aged—there are, however, at least three exceptions to this treatment of preservation of human life with respect to cloning research according to Jewish tradition. (i) Cloning could be supported when it is for therapeutic remedy for genetic disease or conditions such as infertility that besets and individual or

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couple. (ii) The “prohibition of idolatry” is also relevant to cloning assessments. If the
do no harm principle is followed, but there is idolatry, especially self-idolization, which
cannot occur with a child that is sexually produced, then there is an ethical problem. (iii)
The moral status of the clone is an issue as well, which may be linked to the Jewish myth
of the Golem. “Golem” narratives in Jewish mysticism recall the making of a monster to
do the dirty work of man. The Golem is destroyed without any regret because the Golem
could not even speak. Thus, making speaking a necessary condition for humanity for
some Jews. A clone, however, would have human status according to the Rabbis.

**Therapeutic and Research Cloning.** Jewish scholars are worried about a ban on
cloning research. Jewish law does not grant full moral status to the human embryo,
which is contrary to many other religious faith traditions, like Catholicism, that grant full
moral status at conception. So according to Jewish ethics cloning research could be done
on early embryos without the worry of violating the moral rights of the embryo. But lots
of embryo deaths may run face first into the do no harm principle. This leads us to an
interesting conflict within Judaism, namely, if one embryo does not have full moral
status, then there could not be any way for the destruction of any number of embryos to
conflict with the do no harm principle because “harming” lots of things without full
moral status is the same morally as “harming” one thing without full moral status. I do
not think that there is any real possibility for there to be any conflict. What I think is
occurring is that some Jewish thinkers are sensitive to the fact that they do not want
wanton destruction of embryos just because they are potential moral beings. But their
potentiality does not have any logical role to play in the evaluation of whether or not
cloning research is permissible. This possible conflict is just a remedy of some that do
not understand the full entailments of their beliefs.

**Reproductive Cloning.** Jews are more ambivalent than they are condemning to cloning
research. Some claim we should heed the Talmudic maxim: “are you ready to forgo the
honey from a bee in order to avoid the sting.”\(^\text{183}\) This additional Talmudic maxim makes

\(^{182}\) Embryos do not have full moral status in Jewish ethics, but the destruction of many embryos for cloning
research could fly in the face of their do no harm principle.

\(^{183}\) Tendler’s testimony before the NBAC (14 March 1997).
me believe that there is no real worry that there will be a conflict with the do no harm principle. Could it be the case that human cloning and cloning research could be more beneficial than harmful in the long run? It seems that if the only good it does is give us knowledge of how to clone, but there are few successful clones from many tries and they are mistreated, then of course it does not make sense to move forward with cloning research whether for reproductive purposes or therapeutic purposes. If, however, there are tremendous benefits to the knowledge of cloning and the research leads to breakthroughs in disease curing and the only harm is mistreated individuals, then of course we should get the honey for mankind, and allow a few bees to sting.

**Judaism and the “Image of G-d”**. Even thought I have discharged the general objection that relates to playing God talk, there is something important in the Jewish religion that makes understanding the “image of god” talk important. The image of God talk has done a great deal to motivate and elevate the human species especially for the Jewish tradition, and they understand image of God talk to engender three values: (a) pricelessness (b) uniqueness, and (c) equality. Thus, it seems to some cloning opponents that cloning could undermine all three of these values. Since Cohen gives arguments for (a), (b), and (c) above I shall explain them here. Beginning with (a) Cohen argues that the pricelessness of humanity seems to be true since humanity is made in the image of God, and God has infinite worth, so humans have infinite worth. Moreover, if we clone our offspring, then we now do not see them as made in the image of God, but rather as commodities or products that are replaceable and reproducible. Cohen then gives an analogy of an oil painting and its copies. The copies are not worth as much as the original, and thus the clones people produce will not be seen to be as valuable as a child that is created in the normal sexual manner.

The crucial premise in his argument is that the worth of an individual is directly related to the worth of the thing from whose image it was made. There does not seem to

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184 An interesting point that I have not tried to explore is whether or not Jewish thinkers make the doing and allowing distinction in the same manner of the doctrine of double effect and the Catholics. This would be an interesting point for someone to work out.

be any reason to accept the premise that because we are made in the image of God (granting this as true) and that God has infinite worth, then humans would have infinite worth. Religious views on the death penalty alone are sufficient to show that most religious thinkers do not buy into this transitivity principle of worthiness or pricelessness from God. There is not a good reason to think that humans gain their priceless status as imagers of God. But there seems to be another worry for this argument, identical twins.

Now Cohen is clever to note that even though twins are genetically identical, they are both priceless. But if a thousand individuals each created a clone, then there would be a sense in which the worth of the individual, as a mass term, would be lessened. But this cannot be what Cohen means in this sense. If instead of calling individuals priceless in the sense of there being no price for which one could pay for or replace an individual, we could understand that humans and more broadly moral agents or organisms with moral status are not the kind of objects for which one determines a price. Individuals are not capable of being priced is a better way to explain Cohen’s moral status making property, but when explained in this way, the property does not do the work that the cloning opponent needs it to do in this argument.

(b) is the uniqueness criterion, which would be undermined if we cloned individuals. Option (b) is also defended by Martin Buber and Rabbi Zusya of Anipol. The Rabbi Zusya wrote, “In the world to come I shall not be asked: ‘Why were you not Moses?’ Rather I shall be asked: ‘Why were you not Zuysa?’” Buber represents a similar uniqueness defense. There are many worries about why and how we are in the world in the way we are. There seems to be something special about the fact that there has never been and will never be another you. So, if we take time as an essential property of the self, then uniqueness cannot be undermined. But it seems that this worry about uniqueness is a more existential question than it first appeared. For as Cohen ponders, if one can be cloned, then “what is so special about me is the central question?” The real answer is that there is not anything “special” about any of us, and it is this realization that makes people turn to the uniqueness requirement because it is comforting and gives one’s life meaning. There is a psychological answer to the question, and not a metaphysical
answer; and it is not so surprising that the uniqueness requirement is advanced by religious thinkers, for it is their view of the world that makes humanity the center; this has not been done in the sciences since before Copernicus.

But this does lead us to an interesting genetic question: “How much is genetic structure essential to the notion of the self?” Could an individual be the same ‘person’ with a different genetic makeup? It seems that one could be the same person depending of what theory of mind one adopts. I am not going to try to defend any particular theory of mind in this work, but it does seem to be the case that there is something essential in the make up of an individual’s brain that one has the particular mental states that one does have, and this is tied in an intimate way with one’s genetic make up. Although I have denied the truth of genetic essentialism, there is the further metaphysical issue of identity with respect to both the mental and the physical. But if one believes in a theory of personal identity like that of Locke’s, then the transmission of consciousness is all that would be required for identity, and genetic identity would not matter for understanding identity.187

Lastly Cohen argues for (c)—equality among humans. He says that common descent from Adam makes us all equal. “Human choice, rather than genetic structure, has long determined the values we attach to human life.”188 Cloning would no longer make us all descended from Adam in the same manner. So cloning would make some less equal than others. First, it could be claimed that since it is not Adam from which we are descended, there is not a problem of equality. Second, it could be the case that we are not all equal in physical, mental, or financial senses, but that we are equal in some moral sense of worthiness of moral consideration or thinking back to condition (a), we are all priceless. So, I do not know if there is something special about the way we were descended, from Adam for the non-Darwinian or from a common animal ancestors for

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187 There is a tacit agreement by some religious thinkers, the Raleans in particular, in Locke’s theory of mind. The Raleans believe that the point of human cloning is so that humanity can achieve eternal life. Cloning is a necessary component to this, but so is the transfer of consciousness from one clone to the next. Even though they do not know how to do that yet, they believe that they will achieve consciousness transfer soon after they perfect cloning.
the Darwinian, but one thing is clear, we are all equal in the relevant sense of equal—morally equal. I do not see how cloning could make a difference in this sense.

There might be discrimination toward human clones, but presumable being a clone will not be like being a black man, being openly gay, or being fat. One can tell if someone is black, openly gay, or fat, but the property of being a clone is not something that you can “just see,” and this is similar to the fact that one cannot tell if a person is a bastard child or not. These are properties for which one cannot determine without the aid of the individual or some other independent knowledge source. So if the worry is that there is some sense in which a clone will in fact not be equal to non-clones, then that is not a worry at all. But if the worry is that the clone will not as a matter of fact be treated equally by all, then that is a worry that will never be solved; for no group or individual is treated or thought of equally by all whether cloned or not.

**Concluding Judaism.** Of all the religious faiths, Jews are the most sympathetic to cloning research and reproductive human cloning. Clearly they have worries that are similar to other religious traditions, but they also realize that there is a benefit to human free will and that God and man can work together to make the world a better place. Their general objections are not that convincing, and their support for research and the betterment of society outweigh their concerns for the negative effects of reproductive cloning.

**Christianity**

The number of religious variants or sects subsumed under the name of Christianity is rather large. In some sense or other all these religious variants of Christianity follow either the Bible or the teachings of Jesus or some other religious leader like the Pope. In the section that follows I will briefly look at three main variants of Christianity: Orthodox Christianity, Catholicism, and two variants of Protestantism—Conservative Evangelical and Mainline. Within the Protestant tradition I will grant the general distinction between the conservative evangelical and the mainline Protestants and

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188 Cohen, (1999), p. 10
shall not argue for such a distinction. Let us begin with Orthodox Christianity, move to Catholicism and then conclude with the two Protestant views.

**Orthodox Christianity**

3% of the US religious population is a part of either the Orthodox Church in America or the Greek Orthodox Archdiocese of America.\(^ {189} \) They are one of the more extreme versions of Christianity, and some of their basic views are best summed up by the Orthodox Church itself:

“Orthodoxy holds that the eternal truths of God's saving revelation in Jesus Christ are preserved in the living Tradition of the Church under the guidance and inspiration of the Holy Spirit. The Holy Scriptures are at the heart of the Tradition and the touchstone of the faith. While the Bible is the written testimony of God's revelation, Holy Tradition is the all-encompassing experience of the Church under the abiding guidance and direction of the Holy Spirit. Essentially, Orthodox Christians consider that their beliefs are very similar to those of other Christian traditions, but that the balance and integrity of the entire Apostolic faith once delivered to the Saints has been preserved inviolate.”\(^ {190} \)

Let me be clear at the onset, the Orthodox Christian Church is opposed to both research and reproductive cloning. Their main reason is that they believe that “all cloning is reproductive.”\(^ {191} \) The also believe that “any and all manipulation of human embryos as inherently immoral and a fundamental violation of human life” as well as “all human

\(^ {189} \) These numbers used for ascribing the size of any of the religious views comes from two sources: Campbell’s NBAC report on “Religious Perspectives on Human Cloning” and the ARIS reports. The numbers come from 1990, 1997, and 2000, and thus vary is some cases. But the specific numbers are not that important to my argument, and a rough and ready understanding of the approximate sizes is sufficient for my purposes.

\(^ {190} \) From the Orthodox Ministry Access Website: http://www.goarch.org/access/orthodoxy/about_orthodoxy.html.

cellular life is by definition human life.” Clearly this is right on a biological level, but the real question is a moral question about whether a human cell has full moral status. Moreover, is all human cellular life the kind of human life that is worthy of a particular kind of moral status? I shall argue below that it is not.

The first claim leads one to believe that prenatal surgery on an embryo is immoral. I am not sure when the Orthodox church makes the distinction between embryo and fetus, but it make good moral sense to claim that if there is some medical procedure that can save an embryo’s life and this surgery is a “manipulation” of some kind, then it is not inherently immoral and a fundamental violation of human rights to perform that medical procedure. So, the Orthodox Church needs to be careful when making such strong moral claims for they are the easiest to show false, and that is what the claim about any and all manipulations seems to be, just plain false; and the belief is a result of particular dogmatic beliefs about the nature of humans.

As for the second claim about “all human cellular life is by definition human life” this is another linguistic confusion. No one will doubt that all the cells of a human are human cells, for this is a simple truism. But to make their claim have any moral justification, the statement should read: “all human cellular life is by definition a human life.” But it is clear that the cells that flake off while brushing one’s hair or cells that are urinated away, or knocked off every day are not “a human life.” And so, this cannot be what they mean by this claim of cellular life. What the Orthodox Church means by their claim is that all cellular life at the beginning or the creation of a human life is by definition human life. So at the sixteen cell state of embryonic growth, the Orthodox church believes that those sixteen cells are a human life, and this claim is to beg the question against when exactly human life begins, which there is no good scientific answer, but there is the standard religious answer of life begins at conception. So, they

192 “A Statement of the Holy Synod of Bishops of the Orthodox Church of America”

193 But there is a problem with the conception move for human status as well. If a clone is the product of an egg being fused with new DNA, then there is not “conception” to speak of and thus, there is no person to be had. They will have to bite the bullet on this one, but more on this argument below.
are against cloning for humans, but they want to deny publicly funded human cloning research, but are not really bothered by animal research for therapeutic uses.

**The Image of God.** The concept of the person within Orthodox tradition is rooted in the *imago Dei*, with the ultimate purpose of life to realize *theosis*, or God-likeness, in union and communion with others. The “Image of God” argument is something that we will see again and again in the religious faith traditions as arguments against cloning, and in fact, we saw it in the section above. I shall briefly give the Orthodox explanation of the argument and then in the religious arguments section below evaluate a general form of the “Image of God” argument. *Imago Dei* requires that human beings be treated with dignity and respect. This has to do, not only with how they are treated, but how they come into being in the first place. So, if we create humans in a manner that is not “God’s way,” then we are treating them with disrespect and denying them their human dignity. Cloning creates human beings for human rather than for divine purposes and thereby is a form of disrespect.

Disrespect to whom is the real question. Is it God or the child or the family that is disrespected? And if to the child, how? Moreover, if to God, then how? It is the Orthodox Church that believes that God is omniscient, and thus it cannot be done without his knowledge, consent and ability to stop it. Plus, there is the epistemological worry of how do we determine when God rather than a human decides that some woman will get pregnant or is pregnancy one of the things that can be over determined by God and the mother?

And so like many other religious traditions, the Orthodox Church in their belief in literal creation by God entails that cloning is a heretical act that disrespects God, the child, and the marriage union because cloning is not in God’s image. It is difficult to see how one might be able to find something in the scripture that will allow for this kind of biotechnology and still not offend the dignity of humanity given that dignity comes from the idea that humans are made in the image of God.

**Sacramental Relationships.** The Orthodox Church recognizes seven sacraments: Baptism, Chrism or Confirmation, Holy Eucharist, Confession, Ordination, Marriage and Holy Unction. This means that the sacramental (revelations of the sacred in human
experience) dimensions of marriage, procreation, and the rearing of children are relevant to any questions about reproductive cloning. And it is the Orthodox Church’s belief that the holy sacrament of marriage is violated if there is a third party involved. The holiness of marriage and the family is the proper context for procreation and nurturing of a child. No third parties in human reproduction when it comes to donated gametes or gestational contributions. So, the Church will not allow for surrogate mothers nor the donation of sperm or eggs by a person that is not in the marriage union. Since cloning and cloning research involves the use of a third party’s cellular matter, it is thought of as immoral for the Orthodox Church.

Moreover, they think cloning depersonalizes the human because the prospect of manufacturing children transforms a sacred mystery into a sterile technological achievement. I am not sure how just the prospect of such an event is depersonalizing, but this is their claim. The problem is that I do not see any way for the Orthodox Church to run this version of their argument without begging the question egregiously. This is to say that they have nothing more than the claim that it is depersonalizing to back up their claim. So their claim is unsupported in a way that suggests that either they have no support since they would have provided it or they have begged the question.

**Cloning Research.** I stated that the Orthodox church believes an embryo has all the dignity and respect of a full person. “We must treat the developing embryo with dignity and respect, because we do not know when it becomes a person.”¹⁹⁴ Thus, we do not support cloning research on human embryos. The prospect for animal research is much more forgiving. Since other animals are not made in the image of God, they do not hold the same special place that humans do in the moral realm. Thus, if there are thing we can learn about saving human or curing diseases by using animal cloning research, then the Orthodox Church is behind this goal. They do not, however, think that any form of human cloning is acceptable because cloning is always an act of reproduction.

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¹⁹⁴ Demopoulos as quoted in Campbell. This has the ring of two problems: first it is an argument from ignorance and second it seems like it is a latent use of the potentiality argument, which I deal with in Chapter V below.
Conclusion. The Orthodox Church has strict views about the nature of humanity, what moral laws to follow, and what sacred scripture to follow. From this they have to defend some rather difficult positions when it comes to cloning and cloning research. Their main argument against cloning are three: “Image of God,” “Life at Conception,” “The Sanctity of Marriage.” From these three argument one can generally understand the Orthodox Church’s position on not only cloning buy other bioethics issues like abortion and stem cell research. I shall respond to these arguments in a general reply to all the religious argument below.

Catholicism

40% of the US religious population and 20% of the general population in the US are Catholic. Catholics believe in life at conception, and have been a mainstay in the bioethics debate in the US. Roman Catholic teaching is coordinated by the National Conference of Catholic Bishops—NCCB, and in many cases they look to and are informed by the Pope, the moral authority of the Catholic Church. In 1987 the Congregation for the Doctrine of the Faith wrote the *Donum Vitae*, which set the Catholic agenda with respect to bioethics issues. It is this writing along with the Bible that Catholics rely on to inform them on most moral matter, but especially with respect to family values and reproductive technologies and procedures like the pill, abortion, and euthanasia.

**Magisterial Teaching.** *Donum Vitae* condemned cloning (blastomere separation) as a violation of the dignity of the human embryo and of the intrinsic goods of human sexuality.¹⁹⁵ “...attempts or hypotheses for obtaining a human being without any connection with sexuality through ‘twin fission,’ cloning, or parthenogenesis are to be considered contrary to the moral law, since they are in opposition to the dignity both of human procreation and of the conjugal union.”¹⁹⁶ So, the *use* of cloning is contrary to human dignity for the Catholic Church.

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National Conference of Catholic Bishops. However compelling the *Donum Vitae* is, there are other Catholic groups, like the National Conference of Catholic Bishops, that condemn cloning on several grounds beyond what the *Donum Vitae* claims. Some of the reasons are just logical outgrowths of the *Donum Vitae*, while others are new objections. Four of the reasons the NCCB are opposed to cloning were summed up nicely in the NBAC report, they are:

(a) cloning violates a child’s right to have real parents and to not be a manufactured copy

(b) cloning is unethical because of its risks and non-therapeutic objective

(c) cloning is contrary to human parenthood and human wisdom  

(d) cloning goes beyond the vocation of medicine

O’Connor also says “the act of human cloning itself cures no pathology. Thus, we are not doctoring the patient but doctoring the race.” This is the worry of eugenics rearing its ugly head again, and seems to be in line with objection (d). Some of the NCCB objections can be dealt with rather quickly. Let us begin with (a), which is really two worries. First, it is odd to talk about having real parents and not being a manufactured copy as a violation of one’s rights. If it is a child’s right to have real parents, then it would seem that the Catholic church would be opposed to orphanages, adoption and the like. This of course will rely on how one cashes out the locution ‘real parents’. If it just means, parents that exist, then the claim is otiose. If it means, however, traditional biological parents where each parent gives half the genetic material to the child, then either the claim is too strong and children’s rights are violated all the time or they have begged an important moral question: One’s rights are violated if you do not have two genetic parents. This requirement, like other requirements about having a unique genome, seems to miss the ethical point, and if a charge of begging the question seems

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197 This objection is provided by Cardinal O’Connor in his Testimony at the New York State Senate Committee of Investigation, Hearing on Cloning (13 March 1997).

too strong, then what needs to be presented is the actual argument that they want to present instead of just the conclusion that children have a right to real parents.

The second interpretation of (a) about not being a manufactured copy, I do not have much to say. It seems to me that before one can have a right that is violated, one has to exist, but I could be wrong. If this is the case, that one must exist before one’s rights can be violated, then this objection falls in line with the other Parfit style objection, and I will deal with them in a section below on non-identity issues.

If one is going to move much ethical ground in the cloning debate, I think objections of like (b) are the way to go. Here again we have two worries. Cloning is unethical because of its risks and secondly because of its non-therapeutic objectives. Now, I will grant that if the risks of cloning research are too great to undertake for the kind of benefits that may come, then we should not undertake cloning research. If, however, the risks are minimized through further study, then the teeth of this objection are removed. This said, I would claim that the teeth of this objection are further removed today than many of us thought they would have been in 1997 when Dolly was born; that is, the cloning techniques and related technologies are far better now than they were six years ago. As for the non-therapeutic objective of cloning research, the most important non-therapeutic objective is reproduction. And if it is reproduction that is the problem, then it seems that this is just a different guise for the objection about not being a manufactured copy. But more generally this objection is an objection against potentiality, and if it holds true for cloning, then the potentiality objection has to hold true for other kinds of research that the NCCB may find ethically objectionable: Physics research has allowed for an entire defense industry to thrive, for example. But would one want to give up our understanding of electricity, fundamental physics, and flight, just so we would not have better bombs, lasers, and fighter jets? It seems that many would not want to give back the gains of science because of the harms that have arisen confluently with the benefits.

As for Cardinal O’Connor’s objections, it is unclear how cloning research is contrary to human wisdom. If it is the kind of “moral” wisdom that Leon Kass speaks of, then I shall discharge that objection in the section on Kass below. If it is some other kind
of wisdom, spiritual or religious, then many lay people and scientists do not know what it is or how to tap into this wisdom. The second part of the objection is that cloning is contrary to human parenthood, and again it looks as though we have run into the “unnatural objection,” which was discharged at the start of this chapter and so I will not recount it here.199

The final NCCB objection is that cloning goes beyond the vocation of medicine. This is an area of contention. Since I have not made the distinction between research cloning and reproductive cloning clear in the NCCB objections, perhaps it will help to employ them here. If cloning is used in research forums in an attempt to cure diseases, then it is clear that this is well within in the domain of the vocation of medicine even in the most narrowly defined sense. Reproductive cloning is a harder sell for the vocation of medicine. If one thinks that infertility is a medical problem and not a smote from God, then it seems clear enough that human reproductive cloning is well within the vocation of medicine. And since I know of no good argument for why infertility is not a medical problem, I do not see how the NCCB can defend the last objection against my replies.

**Parenthood.** The Catholic faith tradition is extremely supportive of the family relationships and the family unit. For this reason one of their objections is that cloning is contrary to the meaning of marriage and the family, and we have seen this objection before with the Orthodox Christians. The problem is that there are so many things that are contrary to the meaning of marriage and the family that are not considered to be immoral, that we do not have time to deal with them all. The Catholic Church is, however, consistent on this issue, and for the same reason the Catholic Church is not very supportive of divorce by its adherents.

It seems that the real worry here is similar to those of Islamic faith traditions. What are the new family roles going to be? How will people be related and how are we going to keep track of these new relations? We already have problems like this when sisters are also cousins or even worse when sisters are also a mother and daughter. But these strange cases of incest and double marriages are not what the Catholic Church is really worried about. What they are worried about is how we will define ourselves when
we have clones that do not have biological parents in the traditional sense, and I am sympathetic to this concern, but it does seem that it is an epistemological worry and appealing to the traditions of the past is a fallacious move if one is trying to justify why cloning is immoral for the reasons that it has always been one way rather than another. There may, however, be a special place or a special reason for accepting this particular tradition as something that is good, but more on this issue below.

**Concluding Catholicism.** In the end, the Catholics like many other faiths believe that life and full moral status begin at conception. They have a large group of believers that are active in the bioethics debates on the political end, and thus will be hard to convince otherwise. Their arguments stem from the same beliefs in creation of humanity in the image of God that some of the other religious traditions accept as well as some other principles about life and full moral status beginning at conception. By this point, it is easy to see that the Abrahamic faiths have much more in common than they lack. Let us move on to the other major faith base in the US, the Protestants.

**Protestant**

There are several things that separate Catholics and Protestants. One of these disagreements is on the relation one can have with God. For the Protestants one can have a personal relationship with God, while Catholics cannot. There is no need for an intermediary, Priest, to confess one’s sins to God and ask for forgiveness for the Protestants. There is not, however, such a disagreement with the Catholics on cloning research and reproductive cloning: Protestants like Catholics are against human cloning for both research and reproductive purposes. But there is more to the Protestant story than just this. Protestant Christianity is really bifurcated into the Conservative Evangelical and the Mainline Protestants. I shall begin the discussion with the views of the Conservative Evangelical and then move on to the Mainline Protestant views.

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199 See page 120.
Protestant Christianity: Conservative Evangelical

15% of religious Americans are Conservative Evangelical Protestants, and this group includes Southern Baptists. The interesting thing about this particular religious group is that they think that cloning should be set in the “right-to-life” controversy. The introduction of the conservative evangelical into the bioethics and “right-to-life” or abortion debate can be traced back to 1973 after *Roe v. Wade*. Protestants rely heavily on the Bible for their moral beliefs and are ultimately concerned with questions concerning when life begins: They have concluded, like the Catholics, that life begins at conception.

There is, however, a problem for the conservative Protestant in claiming that the cloning debate should be lumped together with the abortion (or as they would have it, “right-to-life” debate) is that they are making cloning a medical and more specifically a reproductive rights issue. In doing this, it seems that they have in at least a small way given support for cloning in the US courts, for if it is an issue of reproductive rights, then cloning might not be any different from a woman’s right to abortion, IVF, or egg donation.

What Conservative Protestants have done is make it clear that there are good reasons for disallowing cloning, and they think that a long moratorium on cloning research with discussion is the best course of action for public policy. Their reasons for disallowing human cloning are less clear than their stance on how public policy should work; they have four arguments: “Sanctity of Life,” “Parenthood,” “Begetting vs. Making,” and “Image of God” arguments.

The Sanctity of Life. J. Kerby Anderson pronounced that cloning should be set in the “right-to-life” controversy. He argues that cloning violates the “sanctity of life” in two ways.

(a) cloning research would inevitably result in loss of embryonic life.

(b) clones have souls, but the clone would lead society to disregard the sanctity of human life and use the clone as spare parts.\(^{200}\)

Taking (a) first, it seems clear that all cloning research causes the loss of embryonic life. In the case of Dolly there were 276 other sheep embryos that did not make it to adulthood. So, there is no question that cloning technology today causes the loss of embryonic life. And no one is going to deny that to make the relevant advancements to reduce the loss of embryonic life by having better cloning techniques, there is going to be great loss to embryonic life. But the crucial premise in Anderson’s argument is still unstated. He is really concerned not with sheep embryos, but with human embryos. And further still, he needs the premise that the loss of this human embryonic life is something that is morally unacceptable. The problem is that there is no way for him to get to his further conclusion with out assuming something about when an embryo is entitled to full moral status. We know that Mr. Anderson as a conservative evangelical Protestant believes that life and more importantly full moral status begins at conception. This last assumption is, however, to beg the entire question for which we are trying to solve, and if it is not a case of begging the question, then it is just assumed by fiat and is not a claim that is argued for in any manner.

As for this second worry, I do not have much to say. I am unsure why the clones that have souls would be used as spare parts as a matter of fact. This worry that the sanctity of life, what ever that means to Anderson, will be violated because of some bizarre possibility does not leave much in the way of discussion. Perhaps instead of cloning people for parts, livers, hearts, and lungs, we can just grow the parts. Now that we have the human genome decoded and we know what genes turn into particular parts, perhaps we can just grow the spare parts we need. If this is possible and it is happening in San Diego and other biotech firms all over the world, then it seems that this objection is not as forceful at it first seemed to Anderson.

**Parenthood.** Conservative Protestants believe that marriage and parenthood go together as in the book of Genesis. They argue that cloning breaks the parent child connection as well as the marriage connection completely—indeed independently of what may or may not be stated in Genesis. Gilbert Meilaender argues that a marital context of giving and receiving in love is the ideal context for procreation and nurture of a child.
The relational context is severed with cloning, which “aims directly at the heart of the mystery that is the child.” The child as gift is lost when it is both a project and projection of the self. It seems that these are the same objections or at least the same family of objections that we have seen before about the destruction of family and the family relationship. And as far as I can tell, these arguments are fairly cogent in some cases of cloning, but there are some cases where there will be a traditional family and the clone will not have severed these kinds of relationships. This argument will have to be explained more, and it will depend on how one cashes out the logical and ontological relationships of the concepts contained in a family.

**Begetting vs. Making.** Oliver O’Donovan’s has argued for this position. This argument has been put forth by more people than Oliver O’Donovan, most notably by Gilbert Meilander. The objection is that children should be begotten, by the sexual act, and not made in terms of manufacture. Why? Cloning would emancipate reproduction from the marriage act.

This argument seems to be another attempt to impute religious norms where they are not relevant. If Meilander and O’Donovan have it right, the no assisted reproduction would be morally acceptable. This seems to be a reductio against their view. There are few of us today that would consider the use of tracking the menstrual cycle to help with conception as inappropriate. Most people no longer have a problem with drugs that help ovulation or even in vitro fertilization for those women that have damaged fallopian tubes or for men that have less than optimal sperm.

Ultimately there does not seem to be any real sharp line to draw between begetting and making when it comes to conception. Often people speak in the following way: “We are off to make a baby” when trying to conceive. Are these individuals deceived in what they are trying to accomplish? It seems they are not. Are they unable to use the language properly? This seems just as implausible. The general worry for Meilander and O’Donovan is that there is something special in the creation of life, but

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they are bothered if this creation is had in some way other than by a married couple. They would not give the same begetting relation to an unmarried couple, but this is ridiculous. The child that is begotten or made is not responsible for the acts of the parents, and thus it cannot be held morally responsible. Begetting objections fails to convince even on the most basic level. There is nothing to this objection other the assertion that cloning is wrong because it is not begetting, but this is no argument at all.

**Image of God.** We have seen the image of God objection in other religious traditions, but for one Evangelical Protestant, Karl Barth, delineates the *imago Dei*, Image of God, argument in the following terms of freedom: (a) for self-determination, (b) equality, (c) relationality, (d) mutual respect, and (e) solidarity.

Barth claims that cloning makes (a) into scientific predetermination. Cloning risks devaluing the person by suggesting genetics is the essence of personhood or by valuing the clone because of its replication of valued character traits from the person cloned. “As bearers of this image, human beings gain insight into self-understanding and human uniqueness and receive a distinctive status relative to the rest of creation.”

The problem is that we know that genetic determinism or genetic essentialism is false, and thus Barth’s worry is one that is not cogent. Our genotypes do not deterministically give rise to our phenotypic and psychological make-ups. So we know that Barth has claimed too much for his image of God objection to cloning.

Barth thinks that being made in the image of God grants humanity certain freedoms and if cloning is allowed, then these freedoms will be usurped. The freedoms expressed in (b)-(e) are the ones that will be taken away. The problem is that there is no evidence that any of the properties that one has of (b)-(e) would be more threatened by the act of cloning than by any other human activity. Mutual respect and solidarity are not guaranteed if one is not a clone either. Moreover, Barth does not give any compelling reasons to think that these properties would be in more danger of being usurped, or as I would claim, never instantiated at all, by cloning than other social conventions.

**Cloning Research.** As for cloning research, CEPs believe that the conceptus (fertilized egg) has full moral status. Echoing Ramsey: “cloning is an immoral experiment on a
person without his or her consent.” This is the Parfit argument again. So, we are violating an embryo’s rights if we clone or do research on it. These claims are made with little or no argumentation to support the claim that some fertilized egg has full moral status. In the absence of arguments for this view, and considering the arguments for the opposing view that I put forth later, I would claim that the ascription of full moral status to a fertilized egg is groundless in these cases. There are compelling reasons to think that fertilized eggs do not have the properties that grant full moral status to persons. If this is the case, then there are no compelling reasons to think that experimentation on embryos is morally impermissible.

In addition to this argument, CEPs have a plain utilitarian argument that cloning research would lead to too many dead embryos. At this point it seems that CEPs are trying to give as many reasons as possible for why the action of embryo experimentation for cloning research is impermissible. The problem is that if one accepts that claims that fertilized eggs have full moral status and killing or experimenting on one is morally impermissible, then a fortiori one will have to claim that many experimented upon or killed is morally impermissible. If the embryo or fertilized egg does not have full moral status, then it does not matter how many of them are experimented on or killed. So any appeal to the utilitarian claims about too many dead embryos is otiose.\footnote{204}

**Protestant Christianity: Mainline**

Mainline Protestants are more concerned with peace and social justice rather than “right to life” issues. They are generally in support of issues like abortion; although they do not like the “culture of abortion,” they find it an acceptable practice in many instances. There are seven churches that constitute “mainline” Protestant Christianity and are about 17% of the religious population. The churches are American Baptist, Christian Church [Disciples of Christ], Episcopal, Evangelical, Lutheran, United Methodist, Presbyterian,

\footnote{\textit{NBAC report D page 35.}}
\footnote{One might claim that any appeal to utilitarian analysis is inappropriate for CEPs since one of the major arguments for cloning research is the amount of good that will come from the information gained from the research. If this is the case, then the utilitarian calculus cuts both ways and they will either have to abandon it or accept the possible good consequences that cloning research serves.}
and the United Church of Christ. Since the mainline Protestant is not as concerned with right to life issues, their worries with cloning are different than those of the Evangelical sect. In the end, the mainline Protestant would like to see a long-term moratorium on human cloning until further information about the processes are known.

**Creative Freedom.** Are there relevant precedents for reproductive and genetic technologies—this so-called “new genesis”? The mainline Protestant thinks that there are. “Genetics and reproductive technologies express the creative dimensions of the *imago Dei* insofar as they promote human dignity and welfare. Within this understanding, no theological principle stands as a bar to human cloning.”\(^{205}\) There is, however, a caveat to this freedom. We are free, but the freedom should be used for divine purposes, and freedom comes with responsibility and accountability.

The mainline Protestant thinks that there should be regulation of the cloning technology, but care should be taken so as to not injure as well as maintain respect for pre-embryos. The interesting part of this requirement is that the mainline Protestant does not consider these issues to be religious issues that have to be dealt with by appeal to religious principles. These are scientific procedures that need to be regulated with scientific rules and principles rather than theological principles. And if there is a violation of religious principles we need to remember that Christians are permitted to “sin bravely” in the pursuit of progress. So, as long as respect and divine purpose are involved with the process, the advancement of cloning research is morally acceptable to the mainline protestant.

**Prohibitions.** There is some support for cloning by the mainline protestant. There is, however, one case where there is not support: cloning as positive eugenics. They believe that there should not be attempts to create a super race. There should be great care in how we implement research that derives from cloning. There is a difference between research cloning and cloning for implantation and birth. The former is acceptable, but the latter is not. And the way the information is used should not be done in a way consistent with eugenics projects of the past. Considering that we are aware of the problems with eugenics plans, and we know that cloning does not replicate a person entirely with all the
same mental states, there is little worry about a Nazi style eugenics plan occurring from therapeutic cloning.

**Concluding Protestantism.** Given the diversity in the protestant religions, there is good reason to think that there are some that are amenable to the possibility of human cloning for research purposes, but the more evangelical protestants are of the same view as most Catholics that full moral status begins at conception. As long as this is a major tenet of their faith system, there is going to be continued disagreement in the secular world of politics and policy making for issues in research and health care. In the end, the Protestant’s arguments, when they have them, are not compelling, and when they do not have argument, their claims are difficult to accept. Thus I find no compelling reason based in protestant faith that would lead one to think that any form of cloning is morally impermissible.

**Other Religious Traditions**

There are several other major world religions that I shall not engage at this time. Buddhism, Hinduism, Native American Religions, as well as minority Black Churches in the US all have different opinions as to the moral nature of both research and reproductive human cloning. Since I cannot survey all the religious traditions of the world, I have stopped with the traditional dominant American religions. Since I take it that all ethical positions that rely on religious scripture or dogma are lacking in moral force, I do not need to search the religious traditions any further. What I will do at this point is try to convey the best versions of some of these religious arguments contained in the next section.

**Religious Arguments Against Human Cloning**

Now that I have reviewed some of the specific religious traditions and their arguments, it seems best if I recast some of their arguments providing the strongest versions I can for evaluation or at least general versions that are worth evaluating. The most common arguments seem to fall under six general categories: Image of God, Human

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205 NBAC report D, page 36.
Dignity, Family Values, Made vs. Begetting, Technological Imperative, and Repugnance. I shall explain and deal with versions of each of these arguments in an attempt to discharge the force of the objection. The final argument I shall leave for analysis in the section on Leon Kass, since the repugnance argument is primarily his.

**Image of God**

One moral principle that is appealed to in objecting to human cloning is that humans are made in the “image of God” (*imago Dei*) and should not be made in the image of man. This is just the kind of principle that could be easily laughed at and not take seriously. I, however, want to take a brief look at why this principle is being appealed to and see if there is something that can be salvaged from it. Plus, I want to try to determine if there are additional principles that the idea of humanity being made in the image of God is founded upon and can do the same moral work. If there is a principle that can do the same work, then perhaps the “image of God” principle can be abandoned and the other, topic neutral principles that support or buttress the image of God objection can be used instead.

What does it mean to be made in the image of God? For if the biblical story of human creation is correct, then Adam is literally made in God’s image. And since man is specially created by God in this way, we should assume that making a human in one’s image is only the right of God. The process of normal human reproduction is not a violation of this general rule because when humans mate, there is no telling how the resulting human will turn out. But in the case of human reproductive cloning via nuclear somatic cell transfer or blastomere separation, one will know exactly what the resulting child will turn out to be, genetically at least.

So the question is: “Is it morally permissible to create another person in one’s image?” Put another way, “Is God the only one that can create in an image of the self?” This principle does not seem to have any justification in either the biblical text or in common moral sense. Even though procedures like cloning or *in vitro* fertilization of separated blastomeres will give rise to an “image baby” there does not seem to be anything wrong with that process in particular.
One way to try to understand why this would be an impermissible act is to determine if the act of creating in an image is one that harms one of the members involved. For if there is harm to either the clone or the cloner, then that would give at least some *prima facie* justification as to why the action is morally impermissible. One such possibility of harming is the decrease in value of the second creation. The following analogy is sometimes used to justify this kind of value claim: If one paints a copy of the Mona Lisa, then the copy will not be as valuable as the original, and thus one ought not to copy the Mona Lisa. Or at least there ought not to be copies of humans in this manner. But the real issue is whether or not there is some harm in this instance to the human that is created *qua* copy. It has to be a harm caused by being a genetic copy that makes this action impermissible. The general intuition is that there is not any harm that is inflicted on the image and neither is there less worth in a human sense for the one that is made in the image of some other beings. We do not value twin less than singleton children, and we do not value triplets less than twins. All of these are copies of one another even though it might be difficult to determine which twin or triplet was the first or original twin or triplet.

**Human Dignity**

“World Health Organization considers the use of cloning for the replication of human individuals to be ethically unacceptable as it would violate some of the basic principles which govern medically assisted procreation. These include respect for the dignity of the human being....”206 This is the exact same worry that many of the religious traditions have when it comes to human reproductive cloning as well as research cloning. Most of the appeals to the image of God and the like are really a concern about human dignity and whether or not the act of cloning will dehumanize someone or cause humanity or some particular cloned human to lose dignity. The problem with these kinds of arguments is that any appeal to human dignity, although attractive is vague.

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206 From Harris John “Cloning and Human Dignity” *Cambridge Quarterly of Healthcare Ethics* (1998), 7, 163. There are at least three other sources for this argument, find and cite them as defenders of this view.
A morally relevant question to ask the religious leader that claims that human
dignity is being violated is to ask: “Whose dignity is attacked and how?” There is no
clear answer to the question. Harris thinks that the link to human dignity is held by a link
to Kantian deontological ethics. Harris provides a quote from A. Kahn’s 1997 Nature
article where there is an appeal to one of the Kantian categorical imperatives. “...This
principle demands that an individual—should never be thought of as a means, but always
also as an end. Creating human life for the sole purpose of preparing therapeutic material
would clearly not be for the dignity of the live created.”207 One thing that I have already
made clear about these appeals to Kantian principles is that the quotations have to be
right, and in this case Kahn has the Kantian principle wrong.208 But there is more going
on here than just the appeal to Kant.

The central issue in this objection to cloning is that whenever there is a human life
there is a full-fledged rights holder to those rights. So, at conception, whether natural or
in vitro, when two gametes get together to form a human conceptus, then there is human
life that demands a certain amount of dignity. This is the same argument that anti-
abortionists use against the moral permissibility of abortion. The real question here is:
“Does a conceptus have the same dignity and more broadly rights that an adult human
has?” My answer to this question is that it does not, and in fact, that it cannot, and I
argue for just such a claim in Chapter V below.

The most that can be said of the human dignity argument is that it has a strong
intuitive or emotional pull to it. No one wants to grant that human dignity can be taken
away, but there have been no arguments, much less compelling arguments, that show that
a clone would not have the same human dignity that other humans have. This is really an
epistemic objection, and no amount of theoretical proclamations will make it true. So
even if there were compelling argument for the view that human dignity was lost in the
cloning process, it would be possible to show the findings false based in empirical facts.
I do not claim that we should clone in order to test if human dignity is lost, but I do not

207 As quoted in Harris, John. “Cloning and Human Dignity” Cambridge Quarterly of Healthcare Ethics
7(2), (1998), page 164.

208 See Chapter II for an articulation of the misquotations of Kant and the Categorical Imperative.
think that the use of human dignity as a reason to ban human cloning, both reproductive and research cloning is cogent.

**Family Values**

The biggest objection concerning family values is that it is detrimental to the identity of the persons being cloned as well as the relationships of the family. Who are the parents of a cloned child? What are the family relations? How do we now define mother, father, sister, and brother? Since a clone would cause these seemingly solid family relationships to no longer be the norm, it is impermissible to clone a human being.

The general family values objection is as amorphous as the human dignity objection. How does it go against family values to create a family by cloning if that is the sole way that one can have a child that is genetically linked to them? It does not seem to be an objection to some action to claim that it will make some of or relationships more complicated than they currently are. There are many events that change the logical relationships of individuals: divorce, marriage, and childbirth are all ways that one can change the relationships one has.

In the end, this objection is just another attempt to claim that there is something generally wrong with the act of reproductive cloning. How family values are changed with research cloning is even less clear, especially when the goal is not the creation of another family member, but is just for research purposes. The answer is that it is not an objection to research cloning. The family values objection is just a general knee-jerk reaction to a technology that we are not comfortable with as of yet. I fail to see how the action even on a grander scale is going to erode the fabric of family life any more than other events like divorce and marriage.

**Made vs. Begetting**

Here the worry is that there is something special about the sexual relationship, and when we separate sex from reproduction and marriage, there is a problem: one is made and not begotten. This is to say that the correct way to have a child is by being begotten, not by being manufactured. Many of the religious traditions like Catholicism think that
because even Jesus was begotten (in a wide sense) instead of being made, there is something special about the process of being begotten. This is one of the reasons that some religious traditions frown upon birth control as well as other reproductive technologies like \textit{in vitro} fertilization, the selling of eggs, and semen donation.

The traditional trinity: Father, Son, and Holy Ghost is not the only trinity that some believe is relevant. When a child is conceived, it is commonly thought of as another trinity of the mother, father, and God that create a child. From this one is supposed to understand that even the research cloning that is occurring is morally wrong because there is a creation of a human being that is ensouled by God whenever two pairs of gametes come together to form a fertilized egg. This made vs. begotten dichotomy is most famously presented by several individuals: William E. May\textsuperscript{209} as well as Gilbert Meilaender.

The problem is that this manufacture objection as one might call it, has the same fundamental flaws that most of the religious argument have. There is no independent reason to accept the conclusions they are presenting especially since they are not giving arguments for the views. One has to take many of the claims they make on faith, and this is not the way that one should have to deal with public policy issues or reproductive health issues. I fail to see either the relevancy of this objection to cloning, much less its cogency. Let us move on to the last objection, which has a bit more force philosophically.

**Technological Imperative**

What is the technological imperative and why it is something that a religious opponent to cloning would use? The technological imperative has been described in many ways, but its most simple form is: if something can be done, then it ought to be done. Now this is restricted to the domain of technological achievements. And so it goes, if cloning can be done, then it ought to be done. But even more worrisome to cloning opponents is the version of the imperative that says that if it can be done, then it

\textsuperscript{209} May is the Michael J. McGivney Professor of Moral Theology at the John Paul II Institute for Studies on Marriage and Family at The Catholic University of America.
will be done. So even if there are legal restrictions on human cloning if the techniques are known, then cloning will in fact occur no matter the objections.  

When we are dealing with technological achievements, there are several questions one could ask as to whether or not this technological imperative will actually be implemented and if so, will it be morally objectionable.

(1) Who controls technological developments?

(2) What are the ends or purposes of technology?

The difference between (1) and (2) supports a distinction between endorsing a scientific quest for knowledge and critiquing the applications of the discovery in the social, political, and clinical worlds. What we need to worry about is the answer to question (2), and in the process try to create policy that dictates a desire for the kind of ends society desires. The problem is that there are so many desires that what ends are desired may not be in harmony. Moreover, the development of technology is something that is many ways is organic and not controllable. These developments are subject to the same demands and forces that all developments are subject to, and the evolution of a technology is not something that can be predicted much less tightly controlled.

Cloning opponents have three objections to the technological imperative:

When the technological imperative in instantiated cloning opponents believe that (a) there is a reduction of nature, animals, the human pre-embryo, or persons to merely an object for scientific manipulation occurs. Why? They claim that there is a loss or diminishment of awe for the mystery and meaning of life. It is important because AWE is an important religious sentiment. Einstein, however, called it the source of true science as well. So, through the technological imperative we have a loss of awe of what it is to be human and that causes there to be a loss of respect for the individual and the process of birth.

I have stated that there are really two variants of the technological imperative. So the second set, (b), of worries concerns these two forms.

(i) If we have the technical capacity to clone, we should pursue this research

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210 The Washington Post published an article on 16 May 2002 that claim that a human clone will be born by 2003, page A8.
(ii) If we have the technical capacity, we will inevitably pursue this research. The worry is that scientists are sinners and cannot help but to be so. Thus, we can mitigate these worries if we have adequate procedural review, but that is not perfect either. Since we know that some of the bad consequences will occur, we need to be prepared to deal with them.

I have a reply to the objections to the two technological imperatives. It seems to me that (i) and (ii) are instances of more general principles (i*) and (ii*) and it is those principles that have to be justified. But if we can show that those principles are false, then we don’t have to worry about (i) and (ii).

(i*) If we have the technical capacity to do X, then we should pursue X research.
(ii*) If we have the technical capacity to do X, we will inevitably pursue X research.

A quick comment about (ii*) is that it seems to be a self-sealer; there is no evidence that could refute the position. It is inevitable that we will pursue x. There is no in principle way to show that we won’t do something in the future. And it could be the case that there is some change in the way the world is that it then becomes not only permissible to clone, but it becomes necessary to clone. If this happens, then (ii*) is clearly self-sealed and cannot be the underlying principle of (ii).

Now there are lots of instances of (i*) where what we plug in for X makes perfect sense – like cancer or a small pox vaccine. But what separates the cases that we like from the cases that we do not like? It cannot be the technological imperative itself, and if not that, then what? It does not seem to matter for the analysis of the technological imperative because we know that the other principle and not the technological imperative is the problem.

(c) cloning elicits disputes over the relationship of knowledge and power. Fletcher’s “rational control” as warrant for cloning may not be enough. Jews also think that technological and medical interventions are a response to the divine mandate to master the earth in service to humanity.

So there are those that think that the technological imperative is a corrupting force, and those that think it can serve in the most divine manner. It seems that there is
not good reason to accept the technological imperative as a moral principle or even a principle that informs a moral discussion.

**Concluding Religious Arguments.** Ultimately most of the religious argument are based in religious dogma, and thus cannot change even under the pressure of a modern, changing society. Contraception, assisted reproduction through *in vitro* fertilization, abortion, and even cloning, are all things that are in some sense against religious dogma. This can be the case no matter what one’s religion is. These rigid moral requirements that are imposed on a modern, secular society do not hold up very well against the light of reason. For it seems that if there were real ethical problems with assisted reproduction, then there would not be so many, otherwise moral people, seeking out the treatments that modern medicine has provided for them.

In the end, I do not see how the religious dogma of the past can set ethical models for the future. Neither do I see how the religious traditions can provide guidance to the most difficult problems of our times when the rules are incapable of even applying to the situation at hand. One can understand where there is so much passion for religious understanding in the making of public laws, but there are two problems with doing so. First, one cannot legislate a religious morality in the US, and secondly, one cannot force the normative religious beliefs of one group onto another through public policy.\(^\text{211}\) Now that we have seen many of the general objections based on religious faith, let us look at one famous, influential individual’s views on human cloning, those of Leon Kass and his famous repugnance argument.

**Leon Kass’s “Wisdom Of Repugnance”**

Leon Kass is now the head of President Bush’s Bioethics Advisory Committee (BAC), which was created to replace President Clinton’s National Bioethics Advisory Council (NBAC), and his views are religious in origin and scope even though he claims

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\(^{211}\) This is one way to try to see the abortion debate. If radical anti-abortion laws are passed in the spirit of Christianity, then those non-Christians have those values force upon them. If however, abortion is permitted for everyone Christians and non-Christians alike, then the Christians can refrain from the practice, while the non-Christians can maintain access to the procedure. This is one of the fundamental differences between the two positions. One restricts liberty, while the other does not.
to be a secular ethicist not beholden to any particular religious points of view. I shall spend this last section of this chapter dealing with the arguments he puts forth in his paper “The Wisdom of Repugnance”\(^{212}\) to see if his denials of religious attachments are true and to see if his arguments against cloning are any more cogent than the rest we have already seen. I shall argue that his view as presented in this meandering, rhetoric driven, religious based article is neither subtle nor does it contain the kind of arguments one would want to use to persuade an informed public about a particular policy issue, especially cloning, in a secular manner. I shall try to place some order to his thinking and show that the argument he presents contain neither sound principles nor does it make moral judgments about the permissibility of human cloning.

**Kass’s Preliminary Arguments Against Cloning**

From the title of Kass’s article it should be clear that he feels that there is something repugnant about human cloning that gives us reason to believe that there is something morally wrong about reproductive cloning.\(^{213}\) But before Kass gets into his main areas of argumentation, he makes some bold claims about cloning in the introduction to his article. The first striking remark he writes is: “the programmed reproduction of man will, in fact, dehumanize him.”\(^{214}\) And a paragraph later citing Dostoevsky and *Crime and Punishment* Kass writes: “As Raskolnikov put it, ‘man gets used to everything – the beast!’”\(^{215}\)

Even though theses assertions are not the main focus of Kass’s article, one cannot let these claims pass without first trying to see if they will do the rhetorical work that Kass wants them to do. In the first claim, about the programmed reproduction of man will dehumanize man as a matter of fact, is a claim that on its face seems compelling and


\(^{213}\) Kass is a bit more liberal on the use of cloned embryos for the use in science. He then states, “If the scientists want to be taken seriously on ethical grounds, they must at the very least agree that embryonic research may proceed if and only if it is preceded by an absolute and effective ban on all attempts to implant into a uterus a cloned human embryo (cloned form an adult) to produce a living child.” Kass, (1997) p. 26.

true. But the general problem with Kass’s assertion is that it is really empty rhetoric. Kass does not tell us in what sense he means by programmed or reproduction nor does he provide conditions for dehumanization if there are such facts. As we have seen, there is nothing about a human clone that makes the clone less human, and the best model for this defense is that of identical twins. We do claim that the second twin is not human or has lost part of its humanity by being a genetic copy of the other twin.

But this might not be the force of Kass’s claim. Perhaps what he is really worried about, and we can grant that he has a theory of dehumanization that does not include twins but does encompass clones, is that of programmed reproduction. The same problem arises as did with dehumanization: we do not know what Kass is talking about. On the one hand it seems that his claim “programmed reproduction” could encompass regular childbirth. There are programs that help people conceive, or as Kass might like to put it, reproduce. But I do not think that this is the kind of case that Kass has in mind. What Kass is doing is begging the question for the conclusion that he wants. He wants people to think that human cloning is morally wrong, and one way to make people think that something is wrong is to claim that it denies someone or some group their humanity. But it should be clear that Kass has not done either of these things. All he has done is incite the passions of those that already thought cloning was wrong.

As for Kass’s use of the Dostoevsky quote, it seems that this very claim: “that man gets used to everything” if true results in an argument against Kass’s general moral repugnance argument. I shall explain Kass’s full argument below, but for now, let it suffice to say that if man can become immune to repugnance, then repugnance of some action at one time will indicate moral outrage, but at another time the lack of it will indicate moral acceptance. So what one has is a situation where the same action is both wrong at one time and then right at a later time. This is an unacceptable consequence for any moral argument, and if this happens, then argument has to be abandoned.216

216 One might get the converse situation mistaken with the one just explained. It might be the case that some action was once not repugnant, but now is: slavery is just such an action. This happens not because the repugnance is the indicator of the morally bad quality of the action, but because we determine some
One of the defenses of human reproductive cloning is that a cloned child would be a wanted child for a couple that had no other way to have a child that is biologically linked to them. In an attempt to show that allowing cloning in this instance will lead to bad consequences, Kass writes: “Thanks to our belief that all children should be wanted children (the more high-minded principle we use to justify contraception and abortion), sooner or later only those children who fulfill our wants will be fully acceptable.”\textsuperscript{217} This is a slippery slope argument that follows from some suppressed premises that are false. Moreover, claims like this make it really difficult to attribute to Kass a position that is not just sophistical. First, wanted children are not the reason abortion and contraception are available; it is the right of women and men to decide if they want children—whether in the bonds of marriage or not—that allows for reproductive choices to use contraception or to perform some abortion. Plus, one cannot give a right of contraception to married couples composed of men and women alone in this society without making it available to all married couples. Second, Kass implies that those children that do not fulfill our needs now are children that are not fully acceptable. What he means by this is up to interpretation by the reader and that is why so many people cite this article as a good one. But the facts remain that Kass has presented a principle that is almost impossible to refute as is, and any interpretation of the principle makes it clear that it is false. The problem is that making this clear seems most uncharitable to Kass even though it is not.

We can see what I mean by this point in the following quote by Kass where he takes analytic philosophy to task for its methods of evaluation of moral issues within the area of bioethics in general:

“With its [bioethics] capture by analytic philosophy, however, and its inevitable routinization and professionalization, the field has by and large come to content itself with analyzing moral argument, reacting to new technological developments and taking on emerging issues of public policy, all performed with a naive faith that the evils we fear can all be avoided by compassion, regulation and a respect things are bad and hence are repugnant, and we need to know that the thing is bad first before accessing a status of repugnance. So, the causal chain moves from bad to repugnance and not the other way round.

for autonomy. Bioethics has made some major contributions in the protection of human subjects and in other areas where personal freedom is threatened; but its practitioners, with few exceptions, have turned the big human questions into pretty thin gruel.”  

I take it that Kass’s general problem with analytic philosophy with respect to the “big human questions” has to do with the fact that the conclusions have not come out in his favor. As a man of religion, he is opposed to abortion, euthanasia, and cloning. Since there have been many argument presented by analytic philosophers in defense of the first two of these biomedical issues, Kass finds them unhelpful.

In another moment of frustration with analytic philosophy and its entrance into public policy debates come in the form of an attack of its methodology. One reason Kass is worried about is that he thinks that public policy, in the manner of analysis, turns big human questions into little ones about procedure. He then laments and writes: “Utilitarianism is the only ethical vocabulary acceptable to all participants in discussing issues of law, regulation and public policy.” Kass cites this as if it were a bad thing. I fail to see how moral convergence about a moral theory is something that is bad for public policy. In a country where democracy reigns, utilitarian values will as well. What is wanted by a government of the people, for the people, and by the people is legislation that does the greatest good for the greatest number. Why? Because that is what the greatest number want, and since the US is a democracy, the public decides. Utilitarianism is a moral theory that fits well with many peoples’ moral intuitions, and so I find it difficult to disagree with using it as a model for legislation.

In the end, Kass is worried about cloning not only as a reproductive issues, but the bigger question about humanity, he writes: “Whether human procreation is going to remain human, whether children are going to be made rather than begotten, whether it is a good thing, humanly speaking, to say yes in principle to the road which leads (at best) to the dehumanized rationality of Brave New World.” None of these issues, however,

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can give us a clear moral assessment of the moral permissibility of human cloning. Now I shall move on to Kass’s primary argument that titles his article.

**The Wisdom of Repugnance**

“‘Offensive.’ ‘Grotesque.’ ‘Revolting.’ ‘Repugnant.’ ‘Repulsive.’”221 Kass claims that these are the terms that are used to describe people’s feelings or initial reactions to the prospect of human cloning. Now on might claim that the prospect of human cloning as an initial reaction is not the same thing as or even relevant to the assessment of actual human reproductive cloning after one learns the facts. But let us take Kass in the most charitable stride that we can in order that we may see that even the widest and most charitable interpretation of his argument fails.

Kass then writes, “People are repelled by many aspects of human cloning. They recoil from the prospect of mass production of human beings, with large clones of look-alikes, compromised in their individuality.”222 But the issue of human cloning is not that there are going to be many or hordes of human clones out there. There is not a mass production or a general conspiracy about to have that happen. There are so many obstacles to this happening, not to mention the gestation period of a clone, that this kind of worry is not relevant to a discussion about the moral permissibility of human cloning. It is quite like a worry about drinking alcohol because there are those that become alcoholics and those that drive drunk. Just because there is some misuse that may occur is no reason to claim that our worry about it is a reason to make some action morally impermissible.

More closely to the point, however, Kass provides a list of things that that cloning could be that is repugnant: (i) father/son or mother/daughter twins, (ii) woman giving birth to a genetic copy of herself and rearing it, (iii) woman giving birth to a dead spouse or even a deceased parent, (iv) replacing a child with a genetic copy, (v) utilitarian creation of embryonic genetic duplicates of oneself, and (vi) man playing God. And it

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seems that Kass is right that if these are the consequences of and motivations for human cloning, then there are reasons to be concerned, but the impermissibility on the grounds of repugnance is another issue altogether.

The general response to Kass’s repugnant states is to claim that these kinds of cloning are not the kind of cloning that will be permissible. Instead of an outright ban on all human reproductive cloning, we will have to have some limits on cloning. Instances where couples want to have some child that is genetically related to them, whether it is a male/female couple or a couple of the same sex will have to have cogent reasons for wanting to clone. The only repugnant aspect that we cannot obviate is that of (vi), playing God. I have, however, already dealt with this issue above. But Kass should not be concerned with (vi) because he is a “secular” ethicist.

Immediately after trying to show that there are good reasons to ban cloning on the basis of repugnance, Kass writes: “Almost no one finds any of the suggested reasons for human cloning compelling; almost everyone anticipates its possible misuses and abuses.”

In crucial cases, however, repugnance is the emotional expression of deep wisdom, beyond reason’s power to fully articulate it. Can anyone really give an argument full adequate to the horror which is father-daughter incest (even with consent), or having sex with animals, or mutilating a corpse, or eating human flesh, or even just (just!) raping or murdering another human being?

Of course there are adequate explanations as to why we find some of these things repulsive. There are good biological reasons for us to not accept father-daughter incest. Some of the other cases that he lists are not that horrifying to most people or at least there is a great community that is not disgusted by the behavior. It could be the case that it is biologically safer to be afraid and run that to not be disgusted by certain activities. So, it is our ancestral past that is causing us to feel the way we do. But this is not a possible explanation for some individuals because they believe in literal or special creation of

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humans by God and claim that evolution is false. This is something that I cannot understand, but it is true. So, yes repugnance isn’t an argument, and there are many more cases where repugnance was the norm, and now it isn’t or should be: homosexuals, interracial couples, blood transfusions, traveling faster than 30 mph, and even the consumption of hummus. But of course you are going to deny the possibility of an explanation, and this is not something that you should really do, for you need there to be cases where there is an explanation, but it might not be possible for us to know what it is exactly.

Kass goes on in his article to try to put forth more arguments with the following kind of names: “the profundity of sex” and “the perversities of cloning”. The remaining argument that he puts forth in the article I have already dealt with in one form or another in the religion section. What is interesting about Kass’s argument is that on one level he seems to get decidedly weaker in his views. He writes, “If the scientists want to be taken seriously on ethical grounds, they must at the very least agree that embryonic research may proceed if and only if it is preceded by an absolute and effective ban on all attempts to implant into a uterus a cloned human embryo (cloned from an adult) to produce a living child.”

Now that we know that Kass is sympathetic to research cloning, and only finds reproductive cloning repugnant, we can be assured that his argument is more cogent. In fact, Kass wants an outright ban on all human cloning and he said as much while chastising the NBAC for recommending a moratorium on cloning instead of an outright ban.

In the end, we know that Kass’s agenda is a religious one, and his repugnance argument is fallacious and not compelling. One of the problems with dealing with argument presented by people like Kass is that there is no way to convince them that one has taken the argument seriously if one claims that there is some weaknesses in the position. The way out is to claim that, of course repugnance is not an argument. But from the other side of his mouth he claims that it is deep wisdom, and we should heed it when it comes to moral issues like human cloning.

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**Religious Arguments Conclusion**

The religious arguments are numerous, and there are many opponents of the views explained in this chapter. The major problem is that the arguments are either based on misunderstanding or rely on some old religious tradition that was not intended to deal with the problems of a modern, technologically sophisticated world. This is not to say that some of the arguments have good points to make. There are genuine worries about when something has full moral status or not. But one cannot just claim that it occurs by fiat and not back it up without some kind of argumentation.

Ultimately I find the religious arguments lacking in cogency when it comes to determining of human cloning, either reproductive or therapeutic, is morally permissible or not. Now that I have explained the religious argument against human cloning, it is time to take a look at the legal argument with respect to human cloning, both reproductive and therapeutic or research cloning. What we will find is that there are several ways to try to defend the position that cloning is either protected as a reproductive right or as a scientific right of discovery.
CHAPTER IV
LEGAL ARGUMENTS AND HUMAN CLONING

Introduction

In the course of a philosophical discussion of the moral permissibility of all kinds of human cloning—reproductive and research—the talk of “legal arguments” as either a defense or attack of the processes raises one important question: “How are legal argument relevant to ethical arguments?” The answer is simple: the legal system although not an ethical theory is a system that acts in accordance with principles that are generally considered to be moral principles, and if one thinks that “moral principles” is too strong, then one can just appeal to the law as a way to try to modify the behavior of a particular group. Equal protection and equal treatment under the law are two such normative claims about the law that could be considered moral principles. These are the same kind of universalization principles that are applied in most moral theories, especially deontology and some forms of consequentialism. Moreover, since the US as well as most other sovereign states are nations of laws, and legal questions are a part of the human cloning debate, it is essential that there be some discussion of the legal arguments in any cloning debate. For it might be the case that one has a legal right to clone herself give some other more general right or from some more specific reproductive freedom, but it may not be morally permissible to do so; there is a conflict of rights and moral responsibilities in this kind of situation. This may be a problem for both the law and morality and those that want to make the two coextensive, but it is a problem that is neither news to some nor is it something that I can resolve given the current discussion governing cloning. Examples of legally permissible actions that may

225 There are several cases where people think that rights and moral permissibility rub: abortion is one such case. People can think that abortion is immoral, but in the US, a woman has a right to an abortion under certain rather liberal restrictions.
be morally impermissible are: the death penalty, abortion, euthanasia, divorce, and the list goes on and on. It is not my contention that there is a wide gap between the legal system and what is morally permissible, just that there is a gap, and it is in that gap that the legal permissibility of human reproductive cloning may be wedged.\textsuperscript{226} And it is for this reasons that the argument for both the legal justification for either support of cloning or for the banning of cloning need to be evaluated.

Because there are two general classes of cloning: reproductive and research or therapeutic cloning, there are going to be two different sets of legal arguments for each type of cloning. In what follows, I am going to first provide a defense of research or therapeutic human cloning, and then a defense of reproductive cloning. One of the worries that scientists have with some of the proposed bans on human cloning is that it will limit scientific research on such things as early embryos\textsuperscript{227} and stem cells.\textsuperscript{228} Depending on what theory of moral status one has, one might think that any experimentation on stem cells or early embryos is impermissible, but I will deal with this issue in below when I cover moral status and potentiality argument for the fetus in Chapter V.

As for reproductive human cloning, there have been many attempts to defend the practice under a guise of reproductive rights, but there has not been much consensus as to what these reproductive rights are. I will show that given the constraints of the US Supreme Court’s decision in \textit{Roe v. Wade}, this case does not provide a full-blown defense of human cloning based on the legal reasoning of \textit{Roe}. There are some important differences between the abortion issue and the cloning issue that can be seen

\textsuperscript{226} I think that the legal and moral permissibility of research and therapeutic human cloning is far less problematic than the reproductive issues. Ultimately I will explain why this is the case when I discuss the moral status of fetuses in Chapter V.

\textsuperscript{227} By ‘early embryo’ I mean an embryo that is no older than 21 days after fertilization. There are different theories that people will give for why an embryo should have certain rights, but I will evaluate those issues in Chapter V below.

\textsuperscript{228} President G. W. Bush’s position on stem cell research is one that is sympathetic to the needs of scientists, but ultimately is in opposition to some of his views as to the moral and legal status of the human fetus. I will touch on this issue more below.
if one really understands the points presented in *Roe*. This, however, does not mean that there is not a defense of human cloning to be made on constitutional grounds, for there is, and I shall present just such a case by explaining the reasoning in the *Griswold v. Connecticut* case, which I take to be one of the defining cases for reproductive rights in the US.

To make matters simple, I will not be dealing with the laws of other nations in this chapter, nor will I be dealing with international law issues. There have been bans on human cloning by different countries throughout the world: France, Germany, and the United Kingdom to name just a few. But I do not think that these bans are relevant to the discussion here, for the issues I am concerned with are limited in scope to the US Constitution. There are several reasons I want to focus my discussion to US law. First, it is the law that I am familiar with. Second, if there is a US ban on human cloning, then it has to be consistent with constitutional principles. Third, I am concerned with US public policy, and the supreme law of the US landscape is that of the Constitution. So, I will not worry about what other countries think about reproductive human cloning. It is enough to realize that there are other countries that have banned human reproductive cloning and leave it at that.

The rest of this chapter will focus on constitutional question related to science and reproductive rights. I will first examine the use of the First Amendment to defend the practices of research cloning alone with other constitutional reasoning. From there I shall move on to questions of the rights of the fetus and what kind of limit *Roe v. Wade* has on the cloning debate in terms of harm to the fetus. I shall then move on to a defense of reproductive rights via reasoning in the *Griswold* case, and conclude with an explanation as to why bans on human cloning will not work and are ultimately unconstitutional. Let us being with a look at science as a Fist Amendment issue.

**The US Constitution And Research Cloning**

The major difference between research or therapeutic cloning and reproductive cloning is that in the former there is no attempt at a live birth of a human, which is the main point of the latter. As most Americans know, abortion is one of the most
contentious political issue that exists today, and research cloning is not far behind just because it can involve that same kind of entities: fetuses. Whether or not a particular kind of fetus should have rights is something that I will take up later in this dissertation, but for now, I want to show that there is a possible defense of research cloning on a level that is neutral to the status of the fetus.\(^{229}\) There are at least two in principle defenses of the scientific process that can be explored that derive form the First Amendment and Article I, Section 8, Clause 8 of the Constitution.

**First Amendment Defense: Science as Free Speech.**

Science as a means of communication might be defended by the first Amendment. The protection is based on the free speech aspects of the First Amendment, which states: “Congress shall make no law…abridging the freedom of speech…” In science, it is not enough to argue for a particular theory, or to publish the findings of some theory, but to be able to do so freely. Other scientists, especially those that disagree with the theory and results, have to be able to test the theory through experimentation. This is the nature of the scientific endeavor, and it is how truth is attained through the scientific method.

If there is a ban on research cloning, then this will be the first time in the history that an entire branch of medical research has been outlawed. And with the current state of an anti-cloning law in Michigan and six other states, a scientist working on some non-reproductive cloning experiment that uses the techniques of cloning is liable for up to 10 years in prison as well as a hefty fine.\(^{230}\) The general problem for any argument that tries to defend science as free speech is that there is no good reason to think of

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\(^{229}\) One might claim that the same kind of research restrictions that are enacted for normal adults should be enacted for the fetus. This can only be the case if one thinks that a human fetus has the same status as an adult human, which I shall argue below is not the case.

\(^{230}\) “Michigan Comp. Laws §§333.16274, 333.16275, 750.430a. Forbids any individual to "engage in or attempt to engage in human cloning," applying civil penalties (up to a $10 million fine) and criminal penalties ($10 million fine and up to ten years in prison). "Human cloning" means "the use of human somatic cell nuclear transfer technology to produce a human embryo." §333.16274(5). This law clearly forbids creating a cloned human embryo for any purpose, including research. A separate state law also forbids using a live human embryo "for nontherapeutic research if... the research substantially jeopardizes the life or health of the embryo..." Performing such research is a felony. §§333.2685 (1), 333.2691.” The quotation comes from: http://www.usccb.org/prolife/issues/bioethic/statelaw.htm
science as just free speech. There are plenty of speech acts that are not allowed in normal activities. One is not allowed to yell “fire” in a crowded theater just for the fun of it. There are just some activities that are restricted.

Ultimately I think that science is not an action that is first and foremost a speech act. Secondly, if one grants the activity of scientific endeavors as a speech act, then one has to show that it is not the kind of speech act that can be curtailed by appropriate legislation. It if is the kind of activity that can be curtailed, then there is no general position for a defense of human cloning via the First Amendment, and I think this is the right conclusion to draw.

**Article I, Section 8, Clause 8 and the Protection of Science.**

The following section of the US Constitution has been suggested as a possible defense of research cloning: “The Congress shall have Power…To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” What this clause does explicitly is protect the actual discoveries and writings of scientists in the form of patents and such. But it is very difficult to see how such a clause could be used to defend research cloning.

One potential move that the pro-researcher could make is to try to conjoin this claim with the First Amendment to try to get a research defense motivated, but I do not see how this will assist either. It seems that the best move that a pro-researcher could make is to appeal to Article One, Section 8, Clause 8 in conjunction with the 9th Amendment, which reads: “The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.” This may allow for there to be a right of scientific discovery, but any such right would still have to pass muster of several other issues, which I will not provide defenses for here, but include the legal status of the fetus, which is the topic of the next section. In the end, it looks as though any defense of research cloning via the constitution will have to be carried out in a manner consistent with these principles, but not relying on them as the sole defense of

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231 Article I, Section 8, Clause 8 of the United States Constitution.
the activity. I would now like to move on to the question of the legal status of fetuses and the limits of the Roe v. Wade decision of 1973.

**Protecting the Fetus from Harm**

Fetuses are special human organisms\(^{232}\) because under normal circumstances they grow up to be adult humans. In fact many of the dominant religions of the world consider fetuses to be full-fledged human beings from the moment of conception. Christianity is one example, but in many Japanese cultures, a newborn baby at birth is considered to be one year old. So this belief of fully human in the moral sense at birth is a common belief. The reason it is a problematic belief for those scientists that want to do embryo research is that there is no real metaphysical difference between a conceptus that is created in the mother and one that is created in a Petri dish. So if one is experimenting on fetuses that are developed *in vitro* and all fetuses from conception (the joining of gametes), then all fetuses have particular rights not to be harmed from unnecessary pain, suffering, and death.

The problem is made even more difficult when one considers the abortion issue: cases where it is legally permissible to abort the life of a fetus that some think has a full complement of rights. I do not want to descend into the abortion debate too fully, but there are striking similarities and relevant ones at that, which when one understands the point of the abortion laws, one will understand that there are good reasons to think that research cloning is legally permissible, but there is equal reasons to think that research cloning is impermissible. What needs to be understood in these cases is: first, the limits of the Roe v. Wade decision and second, what other legal principles are doing work in the law that make research cloning impermissible. Ultimately there is a discrepancy as to the attribution of moral status to some fetuses, but not to others, but I shall deal with this issue below in Chapter V when I argue for a particular definition of moral status.

For now, let us look at the legal and moral limits of Roe v. Wade. Following the

\(^{232}\) I shall use the term ‘human organism’ following Warren Quinn in his paper “Abortion: Identity and Loss” *Philosophy and Public Affairs*: 13.1 (Winter 1984): 24-54. His term is used to connote that the fetus is a biological human being, but it might not be a human being in the moral sense of person.
discussion of *Roe*, I shall examine the rights based objections to the Non-Identity Problem (NIP) as discussed in Chapter II.

**The Limits Of *Roe v Wade* For Cloning Analysis**

The landmark case for reproductive rights for women in the United States is the 1973 Supreme Court decision in *Roe v. Wade*. The Court’s decision made it legal for a woman to obtain an abortion. In effect, the decision in *Roe* made not reproducing a right guaranteed by the Court. Since this decision there have been Court decisions that have lead to *in vitro* fertilization (IVF) treatments that were granted under the same reasoning as *Roe*. IVF in turn lead to embryo experimentation, and from embryo experimentation one gets to the issue of human cloning. It is not difficult to see the significance of the *Roe* decision on all reproductive health issues since 1973. Cloning’s best defense it will seem will come under the guise of a reproductive right, and for this reason it is crucial to understand the reasoning behind such rights. Since *Roe* is the starting point for most reproductive rights discussions, it is important to see how far the reasoning of *Roe* will take one.

In this section, I shall explain the limits of the Court’s decision in *Roe v. Wade* in order to show that there may not be an explicit right to cloning given the reasoning and history behind the *Roe* decision. What one can understand is that there is a tacit admission of reproductive rights in the negative sense. But in the end, it does not seem that *Roe* can defend reproductive human cloning on its own. This is not to say that there is not a way to defend reproductive cloning, for there are cases that I will present below that can get an individual reproductive rights and possibly the right to clone. For now, however, I want to focus on the reasoning the Court used in *Roe* to explain its implication not only on reproductive human cloning, but research and therapeutic cloning as well. Ultimately the legal status of the human embryo is directly relevant to the constitutional issues affecting the human cloning debate.
History of Fetal Protection

Since law in the US is a mixture of common law, statutory law, and constitutional law, there are always going to be cases in which some common law conflicts with some statute or part of the Constitution. Some constitutional commentators think that this is the case when it comes to human embryos. There is a long tradition in the common law that protects the life of the living, and that according to the common law homicide only applies to human beings. In the US, all one has to look at is the Declaration of Independence, where it reads that there are certain rights that are endowed by the Creator: life just happens to be the first one, quickly followed by liberty and the pursuit of happiness. So, the common law understanding of homicide applies to every human being no matter how developed, which includes the fetus. This is why there were early prohibitions on abortion. It was thought that the fetus should be protected from homicide.

What one needs to realize is that the Supreme Court can trump the common law, and this is exactly what happened in Roe v. Wade. What occurred in the Roe decision is just a constitutional exception to the common law rule of homicide as applied to humans embryos when the Court stipulated that legal protection of the unborn may not interfere with a woman’s right to terminate a pregnancy. This leads to some interesting consequences in the law. For one has to remember that there are other constitutional considerations in effect here as well: the 14th Amendment in particular seems relevant.

Amendment XIV of the United States Constitution states in its first paragraph the following:

1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Now if the Roe decision is to be understood in the right light, with respect to the 14th Amendment, then there is now a distinction between being a human and being a person.
because no one would deny that the fetus is biologically a human being. For the 14th Amendment protects persons from having particular rights abridged without due process as well as protecting persons equally under the law, not human beings. In the case of Roe the Court used what is called the “born alive rule” as a way to determine personhood from non-personhood. One is a person only after one is born alive, but no one would deny that the embryo in the mother’s womb is human being, not would they deny that it is in some sense alive. The general rule of harming a human embryo, however, is still in effect in all other criminal cases. The reason the general rule does not apply to abortion is because of the mother’s rights are in conflict with the rights of the fetus. Plus, antiabortionist cannot appeal to the 14th Amendment to protect the fetus under the due process or equal protection clauses because it is not a person as of yet. Whether or not this is the correct understanding of the born alive rule is not of any importance to me here. But what is important about the born alive rule is how it relates to embryo experimentation. Forsythe writes the following with respect to commentary on the part of embryos that are created outside the womb:

The fertilization of eggs and death of embryos in vitro fall outside the scope of the born alive rule (and all of the common law evidentiary problems that gave rise to the born alive rule.) In the case of natural reproduction and with the traditional application of the born alive rule, conception occurred inside the womb, and death occurred outside. With extracorporeal embryos, both conception and death occur outside, thereby sidestepping the born alive rule and rendering it irrelevant.

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233 There are those commentators that think that “human being” and “persons” are coextensive sets, but it seems a bit chauvinistic to think, conceptually at least, that there are some non-human people in the universe. In fact, Gods and Angles would fill this bill.

234 This is not exactly true, there are those that think the born alive rule was an attempt to defend cases where the fetus is considered dead at birth and only becomes alive after it has been born. This in some sense could obviate the need for blame in cases where a child is born dead.

235 Some legal commentators think that this is just a gross misunderstanding of the “born alive” rule by the Court. See Clark Forsythe’s “Human Cloning and the Constitution” in Valparaiso University Law Review vol. 32, No. 2. Spring 1998: 469-542.

This gives rise to the worry to some that embryos that are created *in vitro* cannot be persons, given the born alive rule, under any circumstances. This means embryos that are created for research purposes and not for reproductive purposes do not have the same protection that other embryos have that are either created in the mother or placed in the mother for live birth. And if this is the case, then there is no chance that the destruction of an embryo that is created *in vitro* could be considered homicide under the born alive rule.

But the problem is that the common law seems to support the view that every individual has a right to life from conception forward. Forsythe writes of William Blackstone: “any human creature, i.e., any offspring of human parents, is a human being. And every living human being is a person.”237 The problem is that this is the view that the Court rejected in its decision in *Roe*: a fetus is not a person and thus does not get the rights granted to persons under the 14th or any other Amendment of the Constitution. There are plenty of philosophers that take a similar line that fetuses are human beings, but not persons. Singer argues it thusly:

When opponents of abortion say that the embryo is a living human being from conception onwards, all they can possibly mean is that the embryo is a living member of the species *Homo sapiens*. That is all that can be established as a scientific fact. But is this also the sense in which every “human being” has a right to life? We think not. To claim that every human being has a right to life solely because it is biologically a member of the species *Homo sapiens*, is to make species membership the basis of rights.238

From the modern Court’s view as well as points like Singer’s it should be clear that there is a difference between being a person and being a human. But a more important question is: “Is this distinction morally relevant?” In Chapter V, I show that it is fact is. And the *prima facie* evidence provided by the Court takes this same view. There is a

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further issue as to whether or not the 14th Amendment used the term ‘person’ instead of ‘citizen’ or ‘human’ for any particular reason, say for distinguishing between humans and persons. I think not. In all regards, it seems to be neutral to citizenship for even persons that are not citizens of the US are given the right to due process when in the US. Moreover, I doubt that when the 14th Amendment was constructed in 1868, the problem of abortion was at the forefront of the minds of the authors of the Amendment, and thus is not relevant to the discussion at this time.

Ultimately, the point of the Roe decision is that a woman has a right to terminate a pregnancy and nothing more. It is a single right that allows one to refrain from reproducing. There does not seem to be any way to try to get more “reproductive rights” from this than just that. Issues about positive reproductive rights are different. People that are infertile are considered to be disabled, and thus full under the American’s with Disabilities Act (ADA). When it comes to human reproductive cloning for people that are typically considered to be infertile, there may be a better place to try to get a defense of the cloning process than from the alleged rights enumerated in Roe. Under this ADA, however, they have equal protection under the law, and so may have a right to try to get a chance to exercise some reproductive right that way, but for this to happen one has to defend a reproductive right in some way. This fact coupled with other recent decisions may be the reason that the Roe reasoning has shifted from due process issues to equal protection reasoning.

When it comes to research cloning, the question is more a question about corporeal versus extracorporeal reproduction, namely, reproduction occurring outside the body. And we know that on several occasions the Court has denied that one can do with one’s body the way they want.239

239 Roe v. Wade, 410 U.S. 113, 154 (1973) stating “it is not clear to us that the claim asserted by some amici that one has an unlimited right to do with one’s body as one pleases bears a close relationship to the right to privacy previously articulated in the Court’s decisions” especially Jacobson v. Massachusetts, 197 US 11 (1905) dealing with vaccination.
Trying to Get a Right to Reproduce Using *Roe*.

John Robertson writing about *Roe* claims: “this well-established right [not to procreate] implies the freedom not to exercise it and, hence, the freedom to procreate.”

This is a rather slippery way to try to get a positive right out of a case that is focused in one particular area of abortion. Of course there seems to be something correct in the assessment of the rights attribution, but I am not convinced. Let’s look at a similar case about voting and try to apply it to reproductive rights. Everyone would agree that people have the right not to vote. And most people would agree that there is a corresponding right to be free to vote. But this positive right to vote is not a right to vote in whatever manner one wants. One cannot just walk up at vote at any precinct nor can one vote more than one or vote out of district. So the corresponding right to vote is one that is not completely open; there are restrictions on how it can happen. I think this is the kind of reasoning used by Forsythe when he writes: “Because no general right to medical treatment exists, the strength of any possible “right” to human cloning is diminished, especially when one considers the fact that cloning does not alleviate infertility, but rather circumvents it, and that cloning is not therapeutic.”

Another way to try to put Robertson’s point is provided by McCormick:

“breathtaking in the speed with which it subordinates every consideration to [the] usefulness [of cloning by blastomere separation] in overcoming infertility. [Robertson’s] thesis can be summarized as follows: if it aids otherwise infertile couples to have children, it is ethically acceptable….[A]nything that is useful for overcoming infertility is ethically acceptable.” If McCormick is correct in his assessment of Robertson’s position, and I think that it is more correct than not, he has a point. Clearly

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241 Given that one fulfills certain requirements: legal age, residency requirements, and is not a felon.


anything that aids in reproduction cannot be ethically acceptable, and in many ways Robertson is in agreement. All Robertson wants to establish is that there is a reproductive right, and cloning is the kind of procedure that allows one to eliminate infertility, and thus should be seen as morally permissible as well as legally permissible.

But if infertile women fall within the American With Disabilities Act (ADA),\(^{244}\) which the Courts support, then there may be an additional link in the pro-cloning chain, namely, equal protection under the law. If this is the case then the objection about the right to be able to vote in any manner that one wants may be eliminated. If my house is on the border of a precinct and thus my polling place two miles from my house instead of the nearest polling place and if I am disabled, then I may have rights to help me move my polling place. Or if that is too difficult, then I have the right to submit an absentee ballot. So, as the disability increases, there may be some reason to think that assistance up to and including human reproductive cloning for infertility problems could be warranted. I shall not trace this line of reasoning any further, but I take it that there is some tacit agreement that people have a right to procreate, and the real discussion is when and how much assistance they deserve given other constraints of disability.

Since the beginning of *Roe* was defended as a case of due process, that is, the state, Texas in this case, cannot legislate away a woman’s right to an abortion in the first trimester. The state can, however, have some regulatory intervention in the second trimester. Finally in the third trimester, the state does have a reasonable interest in protecting the fetus. Since substantive due process was the rationale for *Roe*, and this reasoning has shifted from due process to equal protection, it lead Forsythe to write about a decision on cloning and the shift of *Roe* to equal protection:

Applying this reasoning [O’Connor’s from *Vacco* and *Glucksberg*] to cloning, a ban on human cloning, and the protection of extracorporeal human embryos—would fall equally on women and men, and a prohibition on somatic cell nuclear transfer would apply equally to the cells of men and to women. For these

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\(^{244}\) Bielicki v. City of Chicago, 1997 WL 260595 (N.D. Ill. 1997).
reasons, *Roe* and its progeny cannot encompass a right to human cloning or somatic cell nuclear transfer.\textsuperscript{245}

But in an interesting battle of precedent, some commentators look at a passage in *Planned Parenthood V. Casey*, sometimes called the “mystery passage.” The *Casey* plurality opinion stated: “At the heart of liberty is the right to define one’s own concept of existence, of meaning, of the universe, and of the mystery of human life. Beliefs about these matters could not define the attributes of personhood were they formed under compulsion of the State.”\textsuperscript{246}

So it looks as thought there is a battle between the way that *Roe* is understood in respect to cloning and other Court cases. I think that it is fair to say that even though the *Roe* decision did a tremendous amount for the reproductive rights of women, it is not enough to secure the reproductive freedom of human cloning for those individuals that are infertile. This reasoning is going to have to come from some other branch of constitutional reasoning. I believe that it will take the Court actually deciding a case before we find (i) the new direction of *Roe* and (ii) the limits of the reproductive freedoms and the aids for those freedoms

**The US Constitution And Reproductive Cloning**

Now that we have seen some of the issues concerning research human cloning, we can investigate the objections and defenses of reproductive human cloning given constitutional scholarship and the general legal tradition of the United States. One of the reasons that the issue of human cloning is important is because of patent law, that’s right, patent law! The issue is that there are several organisms that certain biotech companies want to patent: organisms that eat oil, stem cell lines, and human organs. Some of the objections to the patenting of human organs as well as potential complete organisms like fetuses, in the words of the 107\textsuperscript{th} Congress during a Senate Vote Analysis, are:

\textsuperscript{245} Forsythe, (1979), p. 524.

“However, our colleagues have then suggested that it may be advisable to allow patents on human ‘unfertilized blastocysts’ and any processes or products from the same. Using the term ‘unfertilized blastocyst’ dehumanizes the clone, paving the way for endless patents, and endless corporate profiteering, from its destruction. However, as we have already explained, an ‘unfertilized blastocyst’ is a human clone.”

This is an interesting claim, and it is in this vein that the Senate thinks that cloning would be dehumanizing. But as we have seen earlier in this dissertation, there is not much to the dehumanizing argument against human cloning unless one has a theory of what it is to be human and most especially what it means to have moral status. So in an effort to understand the argument against this patenting worry, let us look that the argument against human cloning using the 13th Amendment as justification.

The 13th Amendment and Cloning

The 13th Amendment of the United States Constitution states clearly:

1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

2. Congress shall have power to enforce this article by appropriate legislation.

Now the 13th Amendment was proposed on 31 January 1865 just before the end of the Civil War and was ratified on 6 December 1865 after the end of the war. The main point of the Amendment was to abolish slavery. The question is: “What has the 13th Amendment concerned with slavery got to do with human cloning?” The answer is quite simple: not much.

The reason the issue of human cloning and the 13th Amendment have been linked is quite curious, and is derived from something that happened in the US Patent

247 Senate Record Vote Analysis. 107th Congress, 2nd Session. 18 June 2002, 10:28 a.m. Page s-5646 Temp. Record Session Vote No. 156.

248 The full text of the US Constitution can be found on line at http://www.usconstitution.net.
and Trademark Office (PTO). On 3 April 2001 the PTO granted US Patent 6,211,429 to the International Center for Technology Assessment. The patent was about a process for animal cloning and the PTO’s remarks are so wide in scope that it seems that human cloning could be subsumed under the patent. This in the light of a US Supreme Court ruling on another patent seems to make human cloning at least in principle patentable. In 1980 in the *Diamond v. Chakrabarty* case the Court ruled that an oil-munching microbe, indeed “anything under the sun that is made by man,” could be patented. The PTO took the Court’s lead and applied the ruling to plants in 1985, and in 1987 claimed that it applied to all animals including stem cells, cell lines, viruses, embryos, and fetuses.

Quoting the Senate again, we understand part of the reasoning:

In 1980, in *Diamond v. Chakrabarty*, the United States Supreme Court held (5-4) that patent law does not distinguish between "living and inanimate things" when it permitted a patent to be issued for a bacteria which had been bio-engineered to eat oil. The Patent and Trademark Office (PTO) added its own caveat to this ruling in 1987, when it announced that a "claim directed to or including within its scope a human being will not be considered to be patentable subject matter" because such patents would violate the 13\textsuperscript{th} Amendment prohibition on slavery. Since 1980, the PTO has issued thousands of patents for individual genes, including human genes, and for genetically modified plants and animals. Our colleagues have averred that they oppose the patenting of modified strains of humans, but they argue that no law is needed to stop such patenting because of the PTO's policy. However, our colleagues have then suggested that it may be advisable to allow patents on human "unfertilized blastocysts" and any processes or products from the same.

So it seems that the PTO is trying to make law by implying that there is no way that they could patent a full human being. The issue will not be decided until a case is brought to the Supreme Court for a decision, but one could make the argument for why human cloning would be in violation of the 13\textsuperscript{th} Amendment and why it would not. It is this that I shall now turn my attention.
Slavery and Involuntary Servitude. The crucial question in any discussion about whether or not human cloning is a violation of the 13th Amendment is: “Is human cloning an instance of slavery or involuntary servitude?” Let us look at this issue in a couple of different ways: constitutional originalist or formalist. If one is a constitutional originalist, then one might think that the framers of the constitution have nothing to say on the issue of cloning because the point of the amendment was to abolish slavery, not cloning. But if one is a formalist, which I think is a better way to go, then one might think that even if the original amendment was to cover only one case, but it is logically consistent with the constitution and the rest of the statutory laws that we have that the 13th Amendment is applicable to human cloning, then so be it. And if one does not like the way that this works, then one is free to try to change the Constitution in such a way that it outlaws slavery, but permits human cloning. Let us see how cloning might be a case where a violation of the amendment is at issue.

Is human cloning slavery or involuntary servitude? This is the crucial question that has to be answered. Slavery is the state of one person as the chattel or personal property of another person. Now if one thinks that children are the chattel of their parents, then there is no reason to think that a clone could not have the same chattel status as that of a child. But if one thinks that there is something that is inherently different about being a child and being a clone, then one could claim clone chattel and children not, but is there is going to be a moral and legal difference? It is difficult to try to discern the difference between a normal child, in this case, and a human clone with respect to the issue of chattel.

If it were the case that a clone was created to be used for some purpose like, spare parts for transplantation, then there is some reason to think that this is a kind of biological slavery. But since there are no good reasons to think that people will clone babies just for their spare parts, there does not seem to be any reason to think that there is some conceptual link between cloning and slavery. In fact, it would be an injustice to

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249 Some might claim that there is something to the second half of the 13th Amendment that allows for human cloning. But I do not see how it might be the case that a clone could be guilty of some crime and that is why the can be a clone.
claim that the clone of some wealthy couple that could not reproduce in any other manner than cloning is in the same situation as the slaves of pre-Civil War America. Clearly I do not want to try to give any support to this claim. So, it seems that there are no compelling reasons to think that a clone is generally the same thing as a slave, and the first part of the conjunct is eliminated. The question of involuntary servitude is another matter entirely, however.

Involuntary servitude is a condition in which one lacks liberty especially to determine one's course of action or way of life. Since the term ‘involuntary servitude’ is part of the Constitution, it is relevant to any legal assessment to the constitutionality of human cloning, and it seems that there may be at least one good reason to think that a clone could be in a state of involuntary servitude. Any defense of this claim is going to have to be buttressed by another premise. Assume for the sake of argument that no one wants to willfully share the genes of someone else except in the rare cases of natural twins, which seems on a whole to enjoy their twin status. If this is true, then a clone could claim that she is in a state of involuntary servitude because she did not get to be created in a manner that is natural. The objection could be put in the following way. It is not bad that the clone did not get to pick, for in the normal method no one gets to pick, and it is this fact, that no one generally gets to pick one’s genetic make up that the clone thinks puts her in a situation of involuntary servitude. Thus, a lack of genetic liberty has been denied to the clone, and even though this liberty is not a direct liberty like that of free actions, it is a liberty nonetheless.

Now the link in this argument has to deal with whether or not one has a right to choose their genetic make up. If the answer is metaphysically impossible, that one cannot choose, which seems to be the case, then a weaker claim could be used to defend this position: everyone wants to have two genetic parents. Now I do not claim to know the beliefs of everyone and I do not know what a clone might want if they were a cloned human, but there does seem to be one relevant analogy to the cloning issue, adoption. No child wants to be abandoned by their parents and have to be raised by foster or adopted parents if they can help it, but if the alternatives is no parents at all, an adopted
child will desire that they be adopted rather than not.\textsuperscript{250} If this is the case psychologically for adopted children, then this seems to suggest that there are reasons to think that once a human clone is created, they would have preferred to have had two genetic parents, but they are glad to be a clone rather than nothing at all. If this is the case both with adopted children as well as potential clones, then this takes the teeth out of the objection that liberty was denied and the 13\textsuperscript{th} Amendment was violated in the creation of a clone.

Now that I have shown that the 13\textsuperscript{th} Amendment is not a viable place to object to human cloning, let me move to a defense of human cloning based on some recent Court decisions on reproductive rights. In what follows, I shall show one Court decision that I think creates the potential for a syllogism to the conclusion that human cloning is morally permissible under the guise of marital privacy and reproductive rights.\textsuperscript{251} The case I shall be dealing with particularly is \textit{Griswold v. Connecticut}. It will be the basis of my general defense.


“[i]f the right of privacy means anything, it is the right of the \textit{individual}, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child.”\textsuperscript{252}

\textsuperscript{250} This claim might be contentious. I grant that there may be cases of adopted children that would have rather not been born, but those cases seem to be a reflection to their current situation and not the fact that they were not alive. For I take it as a truism that most people that claim they would have rather not been born would assent to the following counterfactual: I would have rather had a different life than then one I currently have if it would be better. Notice how this worry is similar to the non-identity problems we encountered in Chapter II.

\textsuperscript{251} One might think that the best defense of cloning is for lesbians that cannot have children in a committed relationship, and if my defense is a defense based on marital privacy, then it cannot apply to unmarried people. Well given the current state of current equal protection decisions, it is a simple move from married people having reproductive rights to single people and non-married couples having those same rights.

\textsuperscript{252} The US Supreme Court in \textit{Eisenstadt v. Baird}, 405 U.S. 438, 453 (1972). There are several US Supreme Court cases that deal with reproductive rights issues, and as much as the \textit{Eisenstadt} case has influences the debate, I want to focus on a case that is more truly to the point that I am trying to make and that is \textit{Griswold}. 191
One of the best defenses for human cloning is couched in terms of reproductive rights. In the proceeding section, I claimed that the *Roe v. Wade* decision of the Supreme Court does not really get one the kind of reproductive rights that would defend a right to reproductive cloning. In this section, I have two aims: First, I want to briefly introduce a method of judicial review that I call “Legal Logicism.” Just as classical Logicism attempts to reduce all of mathematics to logic, my Legal Logicism will try to reduce judicial review to a proof method. Second, I will present the Court case that is most famous for its decision as both a piece of legal reasoning and a landmark case for reproductive rights. I shall show that the conclusions from the *Griswold* case can be applied to reproductive cloning, and thus a defense on the grounds of reproductive rights is born.

Legal Logicism is an attempt to show that Court decisions, especially Supreme Court decisions, can be made in a logical manner. One of the criticisms of the Supreme Court, and lower courts for that matter, is that the Court legislates from the bench too much. That is, they make law instead of determine if some law is Constitutional or not. I take it that some legislation or statute is Constitutional if it is logically consistent with the US Constitution and not if it is not consistent. One way to test logical consistency is to provide a proof that two or more propositions are consistent. This is the exact method that I will employ in the *Griswold* case.

If the proof leads one into contradiction or inconsistency, the one of the premises of the proof has to be abandoned, and since we know that the Constitution proper is not unconstitutional, one of the other premises has to go. So in essence what happens when one provides a proof of such a decision, the reasoning become clear and everyone will know exactly what premises were asserted or denied in the coming to a decision.

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253 The classic version of Logicism was first defended by G. Frege, and ultimately his Logicism project failed. What I propose for my Legal Logicism is a method of judicial review and legal reasoning that uses the tools of modern logic. I do not propose that all legal reasoning work in the manner I propose, but I do think that for testing consistency of a particular statute with the US Constitution, this method is ideal. And the *Griswold* case is a model case for just such an analysis. For a fuller understanding of my Legal Logicism, review my currently unpublished work: *Legal Logicism and Judicial Review: A New Model For Supreme Court Decision Making*. This work has the entire US Constitution schematized in first order predicate logic with set theory, and it aims to show that any statute can be rigorously tested for consistency against the propositions in the Constitution.
One may think that this is a bit too rigid a method, but I claim that it is not. If the Constitution is the supreme law of the land and all laws have to conform to it, then so be it. Legal Logicism is unlike Originalism in searching for what the Framers Intended. For in some sense it does not matter what the Framers intended, but what the Constitution actually states that is law, and we all know that conversational implication unlike logical implication is cancelable. And since we cannot ask the Framers what they intended, we cannot rely on conversation implication. Legal Logicism is unlike Formalism of the kind Scalia endorses because Legal Logicism is neutral to what conclusions follow from the constitutional premises. If something is deemed unconstitutional that we want to make constitutional, then there is a process, presented in the Constitution, by which we can change the constitutionality of some statute. So Legal Logicism is neutral to any political position, and is just supposed to be a method of legal reasoning and a tool for judicial review.

I claim that all Supreme Court cases could be reconstructed and evaluated using the formal methods of Legal Logicism\textsuperscript{254}, but I have chosen the \textit{Griswold v. Connecticut} case because it is both a famous of legal reasoning and it is relevant to reproductive right and thus cloning. It is an interesting piece of legal reasoning because I believe the Court got the decision right, but the argumentative process by which they did so is unclear, relying on “penumbras” to defend the decision. The lack of clarity in the decision can easily be seen in the fact that only one Justice, Douglas, wrote the majority decision, and there are three different sets of concurring opinions: Justice Goldberg, The Chief Justice E. Warren, and Justice Brennan wrote one concurring opinion, and Justice White and Justice Harlan the other two. Moreover, all the arguments for the concurring opinion require the use of the 14\textsuperscript{th} Amendment, which other than having the same conclusion, is all the positive opinions, rejecting the Connecticut statutes, have in common. The two dissenting opinions were written by Justice Black and Justice Stewart, and they think that any use of the 14\textsuperscript{th} Amendment to

\textsuperscript{254} The logical tools of Legal Logicism are first and foremost: first-order predicate logic, set theory, and a proof structure. I grant that there will have to be some use of modal terms, temporal logic, and event notation for a fully functioning Legal Logicism, but these commitments should not hinder the understanding of the reasoning process in general.
guarantee marital privacy rights is to stretch the use of the Due Process clause far beyond its intended use. In what follows, I take this twenty-eight-page court decision and provide a logical deduction to the same conclusion as the majority decision in 25 steps. What follows will be a cursory review of the facts of the case, my deduction, a commentary on the deduction, and what this means for reproductive rights and human cloning.

Let me remind the reader of the *Griswold* case. Griswold, a Planned Parenthood executive, was charged with providing information to a married couple in an effort to prevent conception. At the time, it was illegal under two Connecticut laws to provide such information to any individual. The case went to the Supreme Court, and the decision of Justice Douglas is famous for his use of granting marital privacy as a right via “penumbras” of Amendments of the Constitution. These penumbras are “derived,” Justice Douglas claims, from the 1st, 3rd, 4th, 5th, 9th, and 14th Amendments. I understand why Justices Black and Stewart wanted to dissent in the face of such shadowy reasoning, and they claim that one cannot get this conclusion form the 14th Amendment either, while the other concurring opinions used either the 9th or the 14th Amendments (inclusive ‘or’) in their decision.

The dissenting opinions are straightforward as far as they go. This may be because the dissenters did not know how to reply to the majority opinion because the majority opinion’s reasoning is unstated or to be more charitable, is intuitive. Nevertheless, I provide a case where the reasoning is clear and testable, and I put it as a model for how testing Constitutional consistency should work. I take it that if a legal statute entails something that the Constitution expressly forbids or the statutes together with the Constitution entail a contradiction, then the statutes are not consistent with the Constitution. It is the former kind of problem that is shown in the *Griswold* case, and now for the deduction.
The Griswold Deduction

To begin the deduction we need a list of the predicates, terms, and relations that will be used in the derivation. Following this list will be my Griswold derivation.

\[ C_0^0 \]: Connecticut  \hspace{1cm} A_0^0 \]: Griswold

\[ B_0^0 \]: Marital Privacy  \hspace{1cm} C_0^0 \]: Griswold’s client

\[ B_4 \]: the right to \( a \)  \hspace{1cm} B_{10} \]: the liberty retained by those who enjoy \( a \)

\( t_2 \): three days

\[ G_i^1 \]: a is a state \( b \)  \hspace{1cm} T_6^1 \]: a is by due process of law

\[ F_i^1 \]: a is a person  \hspace{1cm} N_k^1 \]: a is a drug

\[ O_i^1 \]: a is a medical article  \hspace{1cm} P_i^1 \]: a is an instrument

\[ Q_i^1 \]: a is for the purpose of preventing conception  \hspace{1cm} R_i^1 \]: a is imprisoned

\[ S_i^1 \]: a is fifty dollars  \hspace{1cm} T_i^1 \]: a is a principle offender

\[ U_i^1 \]: a is an offense  \hspace{1cm} V_i^1 \]: a is a fine

\[ T_i^2 \]: a is a person (citizen) of \( b \)

\[ P_i^2 \]: a is a punishment of \( b \)  \hspace{1cm} W_i^2 \]: a concerns \( b \)

\[ T_i^2 \]: a occurs for \( b \)  \hspace{1cm} U_i^2 \]: a occurs for \( b \)

\[ P_{10}^2 \]: a is a liberty of \( b \)  \hspace{1cm} Q_{10}^2 \]: a takes

\[ U_{11}^2 \]: a assists \( b \)  \hspace{1cm} Q_{12}^2 \]: a uses \( b \)

\[ R_{12}^2 \]: a retains \( b \)  \hspace{1cm} S_{12}^2 \]: a is levied against \( b \)

\[ T_{12}^2 \]: a abets \( b \)  \hspace{1cm} U_{12}^2 \]: a counsels \( b \)

\[ V_{12}^2 \]: a hires \( b \)  \hspace{1cm} W_{12}^2 \]: a causes \( b \)

\[ X_{12}^2 \]: a commands \( b \)  \hspace{1cm} Y_{12}^2 \]: a commits \( b \)

\[ 255 \] For this list of predicates, I use the names I use in Legal Logicism and Judicial Review: A New Model For Supreme Court Decision Making. Generally it is better to use predicate, terms, and relation names that are similar to those they represent in a derivation like this, but in this case it is easier to use part of the complete list of Constitutional predicates, terms, and relations I have already compiled.
Z_{12}^3: a is a prosecution of b
K_{1}^3: a deprives b of c

\( (GvC)^{256} \)

1. \( T_{12}^2 A_{10}^0 A_{10}^0 \) (Fact of Case)
2. \( G_{10}^4 C_{10}^0 \) (Fact of Case)
3. \( \forall x\forall y[(G_{10}^1 x & T_{12}^2 y) \to \forall z((O_{10}^2 z y v P_{10}^2 z y v J_{12}^2 z y) \to \sim \exists w(*K_{12}^3 x y z, w & \sim T_{12}^1 w))] \) (A.14.1.0.3.)
   \( \therefore (4) \) \( \forall z((O_{10}^2 z A_{10}^0 v P_{10}^2 z A_{10}^0 v J_{12}^2 z A_{10}^0) \to \sim \exists w(*K_{12}^3 C_{10}^0 A_{10}^0, w & \sim T_{12}^1 w))] \) (1, 2, 3)
4. \( \exists x(x = B_{14}^1 B_{14}^0) \)
5. \( \forall w\forall x\forall y\forall z [(T_{12}^1 x C_{12}^0 & *Q_{12}^2, x y, z & (N_{12}^1 y v O_{12}^1 y v P_{12}^1 y) & Q_{12}^2 z) \to ((\exists u \exists s(V_{12}^1 u v *S_{12}^2 u x, s & P_{12}^2 s z & S_{12}^2 u)) v \exists u(*R_{12}^1 x, u & U_{12}^1 u, (20 * t_2) & P_{12}^2 u z))] \) (Connecticut Statute 53-32)
6. \( \forall w\forall x\forall y\forall z [(F_{12}^1 w v F_{12}^1 x v w \neq x & T_{12}^1 x & *Y_{12}^2, x y, z & U_{12}^1 y & (U_{11}^2 w z v T_{12}^2 w z v U_{12}^1 w z v W_{12}^1 w z v V_{12}^1 x w v X_{12}^1 w z)) \to \forall u((P_{12}^1 u x v Z_{12}^1 u x) \to (P_{12}^1 u w v Z_{12}^1 u w))] \) (Connecticut Statute 54-196)
7. \( \forall x\forall y\forall z [(F_{12}^1 x v F_{12}^1 y v w & T_{12}^1 x & *Y_{12}^2 x y, z & U_{12}^1 y & (U_{11}^2 w x v T_{12}^1 w x v U_{12}^1 w x v W_{12}^1 w x v V_{12}^1 x w v X_{12}^1 w x)) \to \forall u((P_{12}^1 u x v Z_{12}^1 u x) \to (P_{12}^1 u w v Z_{12}^1 u w))] \)
8. \( \exists x\exists y(T_{12}^1 x C_{12}^0 & *Q_{12}^2 C_{10}^0 y, x & (N_{12}^1 y v O_{12}^1 y v P_{12}^1 y) & Q_{12}^2 x & U_{12}^1 x & U_{11}^2 A_{10}^0 x) \) (Facts of Case)
   \( \therefore (9) \) \( \exists u \exists s(V_{12}^1 u v *S_{12}^2 u x, s & P_{12}^2 s A_{10}^0 & S_{12}^2 u)) v \exists u(*R_{12}^1 x, u & U_{12}^1 u, (20 * t_2) & P_{12}^2 u C_{10}^0) \)
   (6, 8)
9. \( \exists u((P_{12}^1 u C_{10}^0 v Z_{12}^1 u C_{10}^0) \to (P_{12}^1 u A_{10}^0 v Z_{12}^1 u A_{10}^0)) \) (7, 8)
10. \( \forall w\forall x\forall y\forall z (T_{12}^1 x & P_{12}^2 y z & W_{12}^1 y w \to \forall u(W_{12}^2 B_{14}^1 u w \to K_{12}^3 x u z)) \) (9, 10)
11. \( \forall w\forall x\forall y\forall z (T_{12}^1 x & P_{12}^2 y z & W_{12}^1 y w \to \forall u(W_{12}^2 B_{14}^1 u w \to K_{12}^3 x u z)) \)

\(^{256}\) I have provided an English translation for the derivation in the next footnote. The reader is encouraged to try to translate the deduction from the English version given below.
(Rights-Punishment Principle)

(13) \[ \forall x (Q^1_x \rightarrow W^2_x B^1_y B^0_{10}) \]  (Contraception concerns Marital Privacy)

(14) \[ K^3_C, B^1_y A^0_{10}, B^0_{10} \]  (11, 12, 13)

(15) \[ \exists x (K^3_C x A^0_{10} & x = B^1_y B^0_{10}) \]  (14)

(16) \[ \forall w \forall x \forall y \forall z (K^3_{xyz} & y = B^1_w \rightarrow \exists u (K^1_x u z & P^2 uz)) \]

(17) \[ \exists y (K^3_C y A^0_{10} & P^2 y A^0_{10} & y = B^1_y B^1_B^0_{10}) \]  (15, 16)

(18) \[ P^2_B^1 B^1_B^0_{10}, A^0_{10} \]  (17)

(19) \[ \sim \exists w (*K^3 y x w, w & (Q^2_y z v P^2_y z v J^1_y z v) & P^1 w & \sim \exists u (M^2_u w & \sim (u = t \in \{P^1 w, p\}) \rightarrow \sim T^1_w)) \]

(20) \[ \forall w \forall x \forall y \forall z [(*K^3_{xyz}, w & (Q^2_y z v P^2_y z v J^1_y z v) & P^1 w & \sim \exists u (M^2_u w & \sim (u = t \in \{P^1 w, p\}) \rightarrow \sim T^1_w)] \]

(21) \[ P^1_t x (*K^3_C, B^1_B^1 B^0_{10}, A^0_{10}, x) \]  (7, 8, 14)

(22) \[ \sim \exists u [ M^2 u, t x (*K^3_C, B^1_B^1 B^0_{10}, A^0_{10}, x) & \sim (u = t \in \{P^1 w, p\}) \rightarrow \sim (y (*P^1_t x (*K^3_C, B^1_B^1 B^0_{10}, A^0_{10}, x), y))] \]  (7, 8, 14) (see note 21)

(23) \[ \sim T^1_w x (*K^3_C, B^1_B^1 B^0_{10}, A^0_{10}, x) \]  (20, 21, 22)

(24) \[ K^3_C, B^1_B^1 B^0_{10}, A^0_{10} & \sim T^1_w x (*K^3_C, B^1_B^1 B^0_{10}, A^0_{10}, x) \]  (17, 23)

(25) \[ \exists x (*K^3_C, B^1_B^1 B^0_{10}, A^0_{10}, x & \sim T^1_w x) \]  (25)\(^{257}\)

\[^{257}\text{Griswold Derivation in English:}\]

(1) Griswold is a citizen of the United States of America. [Fact of the Case]

(2) Connecticut is one of the United States. [Fact of the Case]

(3) Nor shall any State deprive any person of life, liberty, or property, without due process of law. [(A.14.1.0.3)]

(4) For all things z, such that z is Griswold’s life, liberty, or property, it is not permissible that there is an event where Connecticut deprives Griswold of z and that event is not by due process. [Fact of the Case]

(5) There is a right to marital privacy.

(6) Any person who uses any drug, medicinal article or instrument for the purpose of preventing conception shall be fined not less than fifty dollars or imprisoned not less than sixty days nor more than one year or be both fined and imprisoned. [Conn. St. 53-32]

(7) Any person who assists, abets, counsels, causes, hires or commands another to commit any offense may be prosecuted and punished as if he were the principal offender. [Conn. St. 54-196]

(8) Griswold’s client is a citizen of Connecticut and there was an event of Griswold’s client using y, where y is either a drug, a medical article, or an instrument and the event was for the purposes of preventing conception and that event is an offense and Griswold assisted in the event. [Fact of the Case]
A few general notes to those that might like to dissent to the formulation of the argument for why the Connecticut statutes are not constitutional. First, one can only object to ultimate premises, for if something is a subconclusion and follows validly, then objection has to be found in a premise. That leaves the list of places to object to our derivation to the following steps: (1), (2), (3), (5), (6), (7), (8), (12), (13), (16) and (20). Eleven steps may seem like a large number to object to, but 3 of them are facts of the case, (1), (2), and (8), and one of them is the 14th Amendment, (3). That leaves seven places for objection, and of the remaining seven two are the Connecticut statutes, (6) and (7) which we are glad to abandon, but for the purposes of the derivation, they are not subject to dispute. Thus, the remaining five places for dissenting opinions are: (5), (12), (13), (16), and (20).

(9) There exists a fine and the event of the fine is levied against Griswold’s client as a fine or there is an event of imprisonment that occurs for sixty days and is a punishment for Griswold’s client. [(6), (8)]

(10) For all things that are punishments or prosecution of Griswold’s client, they are punishments or prosecution of Griswold as well.

(11) There is either a fifty dollars fine as Griswold’s punishment or there is a 60 day imprisonment for Griswold.

(12) If someone, z, abets another, x, and z is punished and that punishment concerns w, then the right to some action concerns w only if x deprives that right to z. [Rights-Punishment Principle]

(13) If something is for the purposes of preventing pregnancy, then it concerns marital privacy. [Contraception Concerns Marital Privacy Principle]

(14) Connecticut deprives Griswold of the right to marital privacy. [(11), (12), (13)]

(15) There is a thing that Griswold was deprived of by Connecticut and it is marital privacy. [(14)]

(16) If anyone deprives something from someone and that thing is identical to a right then there is something, which is a liberty of that person which the first person has deprived that person of.

(17) There is a liberty such that the state of Connecticut has deprived it from Griswold and it is the liberty retained by those who enjoy marital privacy.

(18) The liberty retained by those who enjoy marital privacy is a liberty of Griswold.

(19) It is not permissible that (there is an event constituted by) Connecticut deprive(ing) the liberty retained by those who enjoy the right to marital privacy from Griswold (in a manner) without due process of law.

(20) If the depriving of the life, liberty, or property of a person is by law and nothing else brings about that deprivation than the law, then that deprivation is without due process.

(21) Connecticut deprives Griswold of life, liberty, or property by law.

(22) Only the law brings out Connecticut’s deprivation of Griswold’s life, liberty, or property.

(23) The deprivation of Griswold’s life, liberty, or property by Connecticut is not by due process.

(24) Connecticut deprives the liberty retained by those who enjoy the right to marital privacy from Griswold and that event is without due process of law.

(25) Connecticut deprives the liberty retained by those who enjoy the right to marital privacy from Griswold without due process of law.
Let me make a few comments on each of these steps in the derivation. (5) claims that there is such a thing as marital privacy. Moreover, it is a right that is not disparaged by the constitution, and therefore not of any less rank than rights enumerated elsewhere in the Constitution. The most common argument against marital privacy being a right is that it is not enumerated by the constitution. But we know, by the 9th Amendment, that rights that are not enumerated by the constitution are still protected by it. Thus, one cannot claim that marital privacy is a lesser or non-existent right than a right actually enumerated in the Constitution. Now this is not a definitive, positive argument for marital privacy being a right, but it is an argument against the strongest attack against it not being a right. Moreover, (5) does not do any logical work in the derivation other than providing the term ‘the right to marital privacy’, which is necessary for the argument.

Step (12) is what I call the “Rights-Punishment Principle.” This principle states what seems to be a reasonable premise: if someone is punished for performing some act, then that person forfeits any rights associated with performing that act. Basically, if one can be punished for \( A \), it seems to follow that one does not have the right to \( A \). That is the intuition that underlies this claim, and it provides a bridge premise for the argument.

While step (13) is a universal claim that may in fact be controversial, given the other relevant facts of the case and who Griswold and her clients were, it seems that in this instance a restricted reading of the premise is warranted and uncontroversial. That is to say that, there may be things that can be used to prevent pregnancy, but are not protected by the right to marital privacy. For example, if a man poisons his wife without her knowledge in order to terminate a pregnancy, then it is not protected under the right to marital privacy. This, however, is a good place for the judges to explain and define the limits of a particular predicate. If they restrict the definition of what constitutes \( Q \), then examples as above will not be counterexamples.

\(^{258}\) Amendment IX of the US Constitution states: “The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.” So from this claim, one can see that there is at least a prima facie justification that there is such a thing as marital privacy, and if the Court, Executive or Legislative body of the government is going to disparage that right, then they have to have a good argument for doing so.
It seems that (16) is a fairly uncontroversial premise also. All it states is that whenever there is an abridgement of a person’s rights, there is a corresponding abridgement of that person’s liberty. S not having the right to A is sufficient for S not being at liberty to A. In other words, if one does not have the right to trespass, then one does not have the liberty to trespass.

Step (20) can be defended from the Due Process clauses of both Amendments 5 and 14, as it is clear that restrictions on rights are permissible, so long as those restrictions come about by Due Process of Law. After all, Life, Liberty, and the Pursuit of Happiness are rights recognized by the Framers of the Constitution, yet they may be taken away from a criminal who has forfeited them. The First Amendment, however, clearly shows that fundamental rights may not be simply legislated away – hence “Congress shall make no law.” An example of Rights being taken away “by law” does exist in the 3rd Amendment, where soldiers may be quartered in a private residence, yet only during a war and according to law. If an underlying principle links these three cases, it seems to be that while a state of affairs or event, together with appropriate legislation, could affect due process for the removal of rights, legislation in and of itself cannot do so. My premise is merely a statement of the latter half of that principle. Moreover, it seems that some event/state and legislation together may constitute due process sufficient for abridging rights (e.g. a state of War and allowing soldiers to be quartered in one’s residence (3rd Amendment) or a “clear and present danger” allowing the government to abridge free speech), but in neither of these cases is Legislation alone sufficient for such due process. This logically entails that the disjunction of Liberty or Due Process (and the absence of Liberty) is in fact a three-part disjunction, or that the concept of Due Process is more complex than it first appeared. I claim that a simpler Due Process definition, and a three part disjunct is a better alternative to a complex Due Process definition and the standard disjunct, but it is for the Courts to decide if I am correct on this point.

Even though I have defended all the places that one may object, there are three places in the derivation that could use additional support: (15), (21) and (25). (15) is arguably the most important premise in the derivation. Note that it is a subconclusion
whose ultimate premises are the Connecticut Statutes themselves with a plausible bridge premise. To deny this subconclusion is to deny at least one of the Connecticut Statutes, which is exactly what it is within the Court’s purview to do. In fact, since this allows us to show that something impermissible has been permitted, we have to give up something from the derivation. This reasoning would allow judges to overturn statutes when they were the only premises in an argument worth giving up, and this is exactly what I suggest for *Griswold*.

While technically speaking, (21) does not *logically* follow from (7), (8), and (14), other than the legal premises in (7) and (8) and some (I feel) uncontroversial bridge premises, nothing is needed to get the conclusion of (14). Therefore, (21) *metalogically* follows from (7) and (8) and (14), since (7) and (8) together imply (21). Furthermore, since no other requirements are needed to get (14) from (7) and (8), (22) metalogically follows as well. Thus, it seems that an objection to (21) is otiose.

One final note about the derivation and its steps, (25) is an existential generalization over events and does not follow without assuming some robust event ontology requiring a bit more than I have used in the rest of the Constitution.\(^{259}\) I find it intuitive that if a state of affairs is described by a sentence and occurs, then there exists an event that is identical with its occurrence. This comes across quite easily in standard English, but is more difficult to explain in formal logic, because the identity that we use is strict identity. This does not, however, erode the force of the derivation.

In conclusion I would like to state that Legal Logicism is a powerful model for how law could be conducted. The twenty-five-step derivation is much clearer than the Supreme Court’s decision, which relied on “penumbras.” This model of logical interpretation of statutes if adopted by the legal community will allow for rigorous testing of prior decisions. There is no need to rationalize the common law when we can formalize it with modern logic and set theory. It should not be the best speaker or the individual with the most precedents that wins a legal battle, but the person with the best

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\(^{259}\) In my *Legal Logicism and Judicial Review: A New Model For Supreme Court Decision Making*, I explore all of the ontological and logical issues that come with event notation. In this paper, *Griswold* is just supposed to be an example as to how Legal Logicism works. So, we can leave this issue of robust event notation aside for now.
arguments justified by legal principles; with the tools of modern logic available to lawyers, the practice of law and the advancement of logic will both benefit.

As for how this proof helps one in the battle for reproductive rights, it is quite simple. From the fact that one has a right to marital privacy and the claim that reproductive rights are part of the marital privacy right, one can derive, thanks to *Griswold*, a reproductive right. From there it is just a very small step from reproductive right to the right to human cloning. It may not be an easy step to get to, but it is, nevertheless, only a step away. Clearly there are more cases that one could try to use to get this final conclusion that cloning is permissible, but for now, I believe that I have sufficiently done the job to show that this is permissible.

**Public Policy And Human Cloning**

The major issues that revolve around the human cloning discussion in terms of public policy is: “What kind of public policy should there be to regulate or ban human cloning?” For the most part, all the executive branch of the US government can do is produce executive orders that does not allow for federal funding to be used for cloning research. President Clinton did just such an act on 4 March 1997. The executive order was not much more than political posturing because the President has already banned the use of federal money for experiments on human embryos. Nevertheless, there is still the issue of the permissibility of human cloning in particular because there is plenty of private money willing to be donated and used for cloning research, and this executive order was a signal to those private donors that cloning was not to be tolerated. In the last two sections, I present a pragmatic argument and a legal argument that shows why a complete ban on human cloning whether reproductive or research/therapeutic will not work.

**Why a Complete Ban on Human Cloning Will Not Work**

As stated above there is nothing, or at least there does not seem to be anything wrong with the President of the United States forbidding the use of federal funds for
cloning research, especially reproductive cloning research. The leaders of the country can choose to spend tax dollars as they see fit. But it is another issue altogether to request of Congress that they enact a complete ban on human cloning both reproductive and research or therapeutic even when public money is not being used. In this section, I am going to explain three pragmatic problems for a ban on cloning: enforcement, detection, and punishment.

The first thing to understand about cloning is the science, which was explained in depth in Chapter I. But what one should gather from that chapter is that the technology for creating a human clone is not that difficult to produce, develop, obtain, maintain, and hide. The biological skills for obtaining eggs and gestating them are fairly simple compared to the skills required to build a nuclear bomb or even something as ordinary as a television set. A small laboratory with simple tools is all one needs to create a human clone. The chemicals used are easy to obtain legally, and there are literally thousands of fertility clinics in the United States alone that have the technicians, tools, and skills to pull off a cloning experiment, and probably a successful cloning experiment. So, from this vantage point, it will be very difficult for there to be an enforceable ban on human cloning research even if there is not attempt to bring a clone into existence.

Secondly, there is the issue of detection in the United States. The US is a large country and as I just stated, there are thousands of fertility clinics that could perform cloning experiments, and these are the one that are registered as fertility clinics. If one takes into account university labs as well as private labs, it would be a law enforcement nightmare to try to detect whether or not some cloning experiment is occurring or not. In fact, I would go as far to claim that even if law enforcement found a cloning experiment while in the course of examining a lab, they would probably not know if the things growing in the dish were clones or the remains of some other experiment, and this is just the issue with US detection. Even if we are really concerned about a complete ban on human cloning, there is no way that there could be a uniform enforcement with regard to US citizens. The technology is cheap, simple, and requires little space in which to perform the activity.
Additionally, US citizens are allowed to travel to foreign nations, and if a woman decided to be a surrogate for a cloned embryo, then upon her return to the US as a pregnant woman, the state could not force her to have an abortion even if they could determine that the fetus was a clone. If the fetus were the genetic copy of the father and not the gestational mother, then the state would be hard pressed to determine if the fetus was a clone in the first place. Plus we know that the state cannot mandate that a woman have an abortion; and the same goes for the father of naturally conceived child. Once a woman is pregnant, she is the sole arbiter of what happens to her body and fetus under the rules set about in *Roe v. Wade*, this much is certain.

Finally when it comes to the punishment issues of a cloning case there are more problems. If a law is enacted that claims that one cannot put a cloned embryo into the uterus of a female, then that law would seem to fail some basic tenets of science. If a woman wanted to allow her womb to be the object of a 14 day test or a cloned embryo, then she may do so given she consents to the risks of the experiment. But one might claim that she could not take part in this experiment because it is not permissible to insert a clone into the uterine environment of an adult female. In order to try to eliminate the example of the experiment one might claim that one cannot put a clone into the uterine environment in order to bring a fetus to term. The problem is that when the fetus, clone or not, is attached to the uterine wall, there is nothing the state or any other individual can do to force a woman to have an abortion, even under contract.

There have been several cases of fathers trying to get women to have abortions because of catastrophic failure of contraception, because the mother lied about contraceptive use, or because the fetus is the result of a rape. In all of the cases the

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260 One might question the legitimacy of such an experiment, but its usefulness is not that hard to imagine. Suppose that there is an attempt to develop a synthetic uterus for women that want to have children. The reason that some women are infertile is because they have excess scar tissue built up on the uterine wall caused by defective contraceptive devices. In an attempt to eliminate this reproductive problem is to develop a synthetic or replacement uterus. This would eliminate the need for a surrogate mother with to some is still problematic. Assume that there is trouble with the development of the synthetic uterus—the test fetuses will not adhere to the synthetic uterine wall. One issue may be to determine if it is the fetuses that are the problem or if it is the synthetic uterus. In order to determine if it is the fetus or the synthetic uterus, one may need to try to insert a cloned fetus into the uterus of an actual woman. If the fetuses fail to adhere in that environment, then it may be the fetuses, but if they do adhere in the natural uterine environment, then one can be sure that the problem is with the synthetic uterus.
courts upheld the right of the woman to do with her body and fetus what she wills to be best. The opposite cases apply as well; in cases where the mother wants to abort the fetus and the father has some reason why he does not want the abortion, religious convictions, he cannot stop the woman from having the abortion. So, it seems that even if there is a law that attempts to ban the implantation of a cloned fetus into the uterus of a woman for the purpose of producing a life birth, which the state could not enforce any punishment that would prevent the clone from being born. So in the long run there is not much hope for a full-blown ban on human cloning to work in the US given the nature of human cloning and the reproductive capacities of the human body.

**Why a Complete Ban is Unconstitutional.**

One of the arguments given above is that scientific research is protected under the First Amendment. If this were the case, then any complete ban on human cloning would constitute a breach of this particular liberty, but I doubt this as a particular liberty. Now there are constraints on the liberty of freedom of speech, but a ban on human cloning is no such exemption to the these rules in part because cloning is not speech.

If there is such a thing as reproductive freedom in terms of a reproductive right as I sketched above in my discussion of *Griswold*, there it follows straight away that it is a violation of this right to deny it. Now we know that one can be denied certain rights as long as there has been an instance of due process granted under the 14th Amendment. But we know that there is a compelling argument that legislation alone does not constitute due process. From the fact that legislation does not constitute due process, there is a strong case for reproductive rights being denied without due process and this alone is sufficient to make the action impermissible according to the Constitution.

With the pragmatic considerations and the constitutional considerations, this seems to be enough to make it clear that any public policy that attempts to create a complete ban on human cloning otiose. Not one might claim that even though it will be difficult to enact such a cloning ban, it is still the right thing to do. I do not have a reply

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261 See the section on *Griswold v. Connecticut* above.
to this objection other than to say that any good public policy has to be in principle enforceable, and a cloning ban is not.

**Legal Arguments Conclusion**

In this chapter we have seen some fundamental rights questions asked and some fundamental rights asserted given the constitutional framework of the US. In the end, however, it looks as though it will be a tough battle to keep cloning out of the hands of the scientists as well as the public when they realize that it is a safe and effective way to eliminate the disability of infertility. Now explaining the human cloning debate in terms of reproductive rights provides the best defense for human cloning, but there are some that think that there has been too much attention placed on the reproductive rights of the individuals in the cloning debate. At this point I cannot tell exactly how or why they think the human cloning debate should be couched in any other terms than those of a reproductive right. Ultimately I think that the defense that I provide given *Griswold* is the most cogent so far, and in conjunction with some of the other considerations about the weaknesses of the other theoretical positions gives strong *prima facie* evidence that human cloning in both its guises will not only occur in the next several years, but will be considered medically necessary. There is no reason to think that people will not get used to these procedures in the same way that they got used to heart transplants, insulin shots, and test tube babies. I grant that getting used to some activity is not evidence for the moral permissibility of that action, but there is something to be said for getting used to something that is useful and for which the initial understanding was misguided.

But there is still the question as to the moral status of the potential human clone. I could try to end my discussion of the cloning debate here, but there is still some

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262 The same thing has been said of the abortion debate as well.

263 There are some that think that instead of an individual reproductive rights issue, cloning should be thought of as a group issue for the human species and that the best traits should be passed on in the right manner. Although she presents a defense of human cloning, she thinks that there is a fundamental problem with couching the debate in terms of reproductive rights.
philosophical work left to be done. What I shall attempt in the next chapter is take up
the issue of defining moral status. The variance in defining moral status is what I think
ultimately causes tension between interlocutors in the human cloning debate. I shall try
to alleviate this tension. To this end I will explain the three dominate views of moral
status as well as a contemporary theory presented by Mary Anne Warren in her book
*Moral Status*. After explaining her view, I will show what I take to be its weakest
components to be, and I shall present a modified version of her theory to deal with cases
of human cloning. But the theory I will present is incomplete and should be construed
to cover many cases in biomedical ethics from abortion to cloning, but not all cases of
moral uncertainty.
CHAPTER V
MORAL STATUS AND HUMAN CLONING

Introduction

After the philosophical, religious, and legal argument have all been presented, there seems to be something lacking in the human cloning debate that would allow for serious advancement in moral assessment of the act of human cloning. I claim the concept “moral status” is where moral discussion generally breaks down between two ethical interlocutors in the cloning debate. It is the fact that the participants in the cloning debate all have different conceptions of what constitutes, grounds, or has moral status that causes much of the current confusion in ethical debates. Does a fetus have full moral status? Can a clone be a moral agent? Do cloned embryos that are not intended to be placed into a uterus have full moral status, or some moral status that is less than normal adult humans? All these questions are answered only when certain properties of a moral status theory are applied to the question. If one thinks that being alive sets both necessary and sufficient conditions for having full moral status, then one will have different answers to the above questions than one that thinks life is only a necessary condition for full moral status, and this will have a dramatic effect on how one understands the cloning debate in particular and all the bioethical debates in general. In what follows, I shall review some of the main attempts to define moral status via one necessary and sufficient condition: life, moral agency, and sentience. We shall see that there are good reasons to think that none of these intrinsic properties is able to do the work of providing both necessary and sufficient conditions for what constitutes full moral status. I will then take a more recent attempt to give a pluralistic view of moral status as presented my Mary Anne Warren in her book Moral Status, and show that even her theory is lacking in its attempt to set necessary and sufficient conditions for what constitutes full moral status. In fact, the project of her entire book
fails in this area, but more on that below. But this does not mean that there is not something to learn from her attempt, and in fact, I will argue for a limited definition that will allow for some advancement in the bioethics debates when the concept of moral status is in question. And if one does not agree with the conditions I set, then we know that the problem is not with cloning proper, but with some other issue of founding moral status.

What does matter is that there are some conditions that one can set for moral status that will allow for the kind of moral assessment that one wants to be able to do. I shall present what I take to be at least one necessary condition, life, and two sufficient conditions for full moral status: sentience and moral agency. From these conditions, I shall then argue that one can defend both research or therapeutic cloning and reproductive human cloning on the grounds that no one has violated some obligation to either a clone or a parent in the cloning situations. This is to say that whatever moral status is, as I defined it, there has not been a violation of some obligation because there is no obligation to the early fetuses and clones. The main point of defining moral status will allow us to see that in the cloning debate there are more things to consider than just the properties of the clone in question. What those considerations are will matter when one thinks that cloning is not a reproductive rights issue, but an issue about the nature of what it is to be a clone in general—a potential human. From this standpoint, we shall see that defining at least some conditions for moral status, both full and partial, will give a reasonable guide as to what kind of obligations one has to both clones and fetuses.

**Moral Status And The Cloning Debate**

One of the questions that one might have is: “How does moral status help one evaluate and resolve the cloning debate?” This is a relevant question, but to answer it one has to first remember that there are several different cloning debates that are occurring at the same time. The most recognizable cloning issue is that of reproductive human cloning. But there is the lesser debate about research or therapeutic human cloning that involves both the abortion debate as well as the stem cell debate. In fact it
is this issue of fetal tissue and stem cells that has become the greater focus of the cloning debate because the technology for cloning cells to create stem cell lines exists, while reproductive cloning is still just a theoretical possibility for humans. If one is concerned with the latter debates, then the moral status of fetuses and stem cells are going to be of paramount importance, and it will be the deciding factor as to how one decides the moral permissibility of cloning, the production of stem cell lines, and abortion. But the days of believing that life, in the sense of having full moral status, begins at conception, are long gone from the public policy debate in terms of legal debates in the United States, in large part due to Supreme Court decisions like Roe v. Wade. Whether or not these decisions are right or not is something that will turn on the definition of moral status that one accepts.

Moral Status and Research or Therapeutic Human Cloning

Cloned human, stem cells, and aborted fetuses are all extremely contentious topics of debate. A woman’s right to choose to have or abort a fetus is a not just a reproductive right, but a right to decide what happens to one’s body. If one has any rights at all, it seem that deciding what happens to and in one’s on body is one of the fundamental rights that would seem to trump a more specific right of reproduction. But some will argue that this right to determine what one can do with one’s body may not be the kind of right that is more stringent or outweighs someone’s, fetus’s or clone’s, right to life. Much ink has been used in the abortion debate, and even though I think that it is an instructive place to start to try to help with understanding the cloning debate, there seems to be something lacking in how one would move from the issue of terminating a pregnancy or the conducting or terminating of a scientific experiment or

265 There have been recent developments that suggest that human reproductive cloning is impossible because there is a “pothole” in human DNA that will not permit cloning is. For full story see CNN.com: http://www.cnn.com/2003/HEALTH/04/10/cloning.failures.ap/

266 Of course there are restrictions to this right. 17-year-old people are not allowed to drink alcohol in the US. Plus there are many illegal drugs that one cannot put into one’s body without chance of punishment by the state. The same goes for wartime activity. If the state decides to go to war and a young man is drafted into the military, then he will not have the same kind of control over his body that he did during times of peace. So even though this is a seemingly fundamental right, it is not the kind of right that governs any activity.
even the production of stem cell lines. One of the ways that one could argue for the
designations of fetuses, clones, and stem cells is via the notion of potentiality. I have briefly
touched on the topic of potentiality when discussing the Non-Identity Problem. I want
to now give a more cogent argument to the conclusion that potentiality is not relevant to
the analysis of the moral status of clones, fetuses, and stem cells. From this argument
the stronger claim that potentiality is not a criterion for moral assessment can also be
established.

**Potentiality Arguments**

One of the major conditions or properties that people claim matters independent
of the conditions one sets for moral status is that the clone, fetus, or stem cells are
potentially beings with moral status, and this potentiality is what matters when it comes
to the moral assessment of abortion, stem cells research and reproductive human
cloning. In what follows, I am going to set forth a modified argument that is presented
independently by two philosophers: Aleksandar Jokic and Elizabeth Harman. Both
philosophers have argued that potentiality does not matter in the moral assessment of
abortion and the ascription of rights to fetuses. I am going to use and modify their
arguments and generate what I refer to as the “disjunctive strategy” with respect to
potentiality as a property for the assessment of full moral status to fetuses, clones, or
stem cells.

**Jokic’s argument against potentiality**

Aleksandar Jokic in a series of four articles presents an argument against what
he calls “potentialism,” which states that a fetus has a right to life from the very
moment of conception, or soon after, because it is a potential person, or as I would
express it, potentially has full moral status. In his attempt to show that the potentialism

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thesis is false, he has to show that the “Future Independence Thesis” is false. Jokic writes the FIT thesis in the form of a question, which he answers in the negative: “Is the fetus a conceptually suitable subject for rights attribution independently of whether the fetus will in fact be aborted?” Another way to think of this is: Does a fetus have rights independently of whether or not it will be aborted or brought to term? In what follows, I am going to present Jokic’s argument and modify it slightly, for I think some of his conclusions do not actually follow in the manner that he claims.

The methodology that Jokic uses is one of the two clever aspects of his argument against potentialism. Since he wants to remain neutral with respect to what it is that gives adult humans full moral status, he represents that property or set of properties with a variable, ‘Q’, and asserts the following as a claim about rights attribution, call it (A): “(A): There is some nonmoral property (or set of properties) Q such that for any object x, x has some (unspecified) right $R$, if and only if, x has Q.” 268 And the property Q can be disjunctive or logically complex depending on what theory of property instantiation one wants to use for granting rights.

Jokic thinks that there are two ways to try to argue that something has rights: the tired method and his new method. The tired method has two parts: (a) argue for a theory of rights for property Q and (b) show that x has or lacks the property Q. This would be enough to deal with any borderline case of rights attribution. If it has the relevant property, then it has rights, and if not, then it does not have rights. Jokic’s new method differs in that it relies on analogical reasoning instead of granting particular properties to the x in question and then claiming that the thing has rights. His three-part method is to: (i) examine the relevant characteristic of those things that we know have rights (normal adults); (ii) examine those things that we know do not have rights; and (iii) compare borderline cases to see if they are more like those entities in (i) or more like those in (ii). The important question issue is to now determine what counts for groups (i) and (ii).

Jokic grants that adult humans have the relevant property for rights attribution, let us call this group, group (i). Group (i) we will claim have properties Q₁, which satisfy Q in (A) so they are rights-bearers. Some of the possible properties for satisfying Q in (A) are listed by Jokic as:

“Q₁: (a₁) ‘…is capable of having needs (of some specified sort),’ (b₁) ‘…is capable of having interests,’ (c₁) ‘…is capable of feeling pain,’ (d₁) ‘…is capable of acting on the basis of reasons’.”269

There are many types of objects that are not rights bearers and Jokic is aware of this. But for the cogency of his argument, he needs to pick the kind of entity that does not have rights in a very specific way. This is to say that he cannot rely on an average or ordinary rock as his example as an object that does not have rights. So, his method is going to have to include a more interesting object for his group (ii) objects. Jokic proposes merely possible individuals, which are merely possible objects as the paradigm example of objects that do not have rights. His example is called “Noman” and Noman cannot have property Q, which satisfies rights attribution in (A).270 To understand this Noman example, one needs to first understand a simple distinction between possible objects and merely possible objects. Possible objects are just those objects that might have existed in the actual world. So, every actually existing object or object that will exist is a potential object. A merely possible object, on the other hand, is something that might have existed in the actual world but never does. The best example of this kind of merely possible object is Noman, but what is Noman? Noman

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269 Jokic, (1993), p. 180. It should be noted that in Jokic 2001, he misquotes himself and adds to the list of Q₁ properties an (e₁) property: “belongs to the species Homo Sapiens” page 225. This might seem like a harmless oversight, but it will affect the functioning of the argument. There are two things to note here. First, being a member of a species is not something that is potential of an organism, and thus cannot be part of the potentialist claim as a property if one has Q₁ type properties. Second, being a member of a species cannot be the property that grants full moral status or present rights of some thing. I do not have room to argue for this claim here, but I will do so later, but a brief understanding is that eggs and sperm are members of the species Homo Sapiens, but they do not have full moral status and are not rights bearers. In personal communication Jokic as assented to the oddity of his (e₁) property being missing in the first article and it use in the second. I think that for the overall cogency of his position and for the focus of his argument against potentialism, he does not need (e₁) as a property in the list of (Q₁) properties.

is the individual that would have been created if a particular sperm and egg cell had come together for Salmon’s parents. Noman could have even been my brother or the sister of Jokic. At this point it does not matter to whom we attribute Noman’s possible relations to, but we do need to know what kind of properties Noman can instantiate.

According to Salmon, and Jokic agrees, non-existence is not a way to avoid properties. In fact, Noman has lots of properties, they are: (i) nonexistence; (ii) the entailments of (i), negative properties: not being a philosopher; (iii) modal properties, possibly existing and all its entailments; (iv) dispositional properties: he (it?) would have been male if existed; and (v) nonnegative, non-modal properties: being mentioned and discussed in a passage in Salmon’s essay “Existence” and many more. Thus, the reason Noman cannot be a rights-bearer is not that he lacks every property including Q which would satisfy (A) to grant rights, but because he does have properties that are similar to Q₁ properties, which are Q₃ properties, but they are not enough to grant Noman rights. The list of Q₃ properties is as follows: “Q₃: (a₃) ‘…would have been capable of having needs (of some specified sort),’ (b₃) ‘…would have had interests,’ (c₃) ‘…would have been capable of feeling pain,’ (d₃) ‘…would have been capable of acting on the basis of reasons,’ (e₃) ‘…would have belonged to the species homo sapiens’.”²⁷¹ According to Jokic it should be clear that Q₃ properties are not the kind of properties that one would use to grant present rights to individuals.

Now that we have an understanding of the present properties of individuals as well as the present properties of merely possible objects, we need to know what the present properties of future individuals will be, and these are actual future individuals. Jokic lists the present properties of future individuals as Q₂ properties, and they are: “Q₂: (a₂) ‘…will be capable of having needs (of some specified sort),’ (b₂) ‘…will have interests,’ (c₂) ‘…will be capable of feeling pain,’ (d₂) ‘…will be capable of acting on the basis of reasons,’ (e₂) ‘…will belong to the species homo sapiens’.”²⁷² This makes the crucial question: “Are Q₂-properties sufficiently like Q₁-properties to allow for the

ascription of present rights of future individuals?” According to Jokic, when it comes to actual future individuals, the answer is ‘yes’, but for a fetus, the answer is ‘no’. This is a striking similar position that we will see presented by Harman below. Now, it may seem that there is an inconsistency on Jokic’s part, and he even comments thusly: “On the face of it this result may suggest that if future individuals qualify as rights holders, then surely also does the fetus. But as we shall see, there are reasons why we should avoid this conclusion.”

His way out of this seemingly contradictory view will rely on properly defining potentiality, which we shall turn to now.

Since the potentiality argument will rest in large part on how one defines potentiality, Jokic needs to do just that. To begin, he asks the following relevant question: “Is the fact that a fetus potentially has \(Q_1\)-type-properties sufficient to justify the ascription of rights to the fetus?” Since potentiality is the relevant property that potentialist think grants fetuses present rights, let’s use \(Q_p\)-properties to identify the properties under discussion, which should be read as: ‘…is potentially \(Q\)…’ or ‘…has \(Q\) potentially…’ Now what one needs to know is whether or not \(Q_p\)-type-properties are the kind of properties that will allow for the granting of rights to the fetus?

First we need an analysis of potentiality. “I conceive of potentiality in terms of possibility and quantification over future times… These can be seen as necessary conditions since this is just a partial analysis.” So according to Jokic, potentiality involves possibility, but it is just more than possibility: That is, some state of affairs, \(S\), may be a possible state of affairs, and yet we may not find it intelligible to say that \(S\) is a potential state of affairs. Because it is not an impossible state of affairs that Michael Ruse might have been an astronaut, it is a possible state of affairs. Nevertheless, it is not intelligible to think of Michael Ruse as a potential astronaut, since astronaut have to be training before the age of thirty and Ruse is past that age. Thus, there is more to possibility than potentiality. Jokic then claims that “the result of thinking of

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potentiality in terms of possibility and quantification over future times is this: to say that
a fetus is a potential human being is to say that the fetus is suitably related to a possible
future object with the property of being human.\textsuperscript{276}

Given this new analysis of potentiality being possibility quantified over future
times, we need to know three things now: (1) the concept of a possible future person;
(2) which notion of possibility is in operation here, and (3) what exactly is this suitable
relation holding between the fetus and a possible future object. What we do know is
that (2) is not logical possibility nor is it metaphysical possibility, but perhaps it is
biological possibility. (3) seems to be the relation of identity or at least numerical
identity. So the final question has to deal with how we understand (1).

What about (1)? We have two notions of possible objects: (i) any object that
will exist in the future is a possible object, and (ii) any object that might have existed
but doesn’t is a merely possible object. Both (i) and (ii) satisfy (1) in terms of an
analysis of what it is to be a possible future person. So according to Jokic, one should
cash out “x is potentially Q” in the following way, call it (PA). “(PA): Either there will
be a (human adult) y such that y has Q and is identical to x, or it is merely possible that
there will be a (human adult) y such that y has Q and is identical to x, i.e., there will be
no object y such that y has Q and is identical to x, but there might have been such a y (in
the actual world).”\textsuperscript{277}

So, “if the fetus grows normally (i.e. if it is not aborted or destroyed in any other
way), there will be a person that was (or is related in some important way to) the
fetus.”\textsuperscript{278} This was we have seen is by being numerically identical with the fetus. What
one can establish from this understanding of the (PA) analysis is that potentiality has a
disjunctive character. Now that we know that the potentiality property Q_p is a
disjunctive property, we have to express the explicit disjunct with respect to the fetus in
accordance to the (PA) analysis. The first disjunct is Q_2-type-properties and the second

\textsuperscript{276} Jokic, (1993), p. 185.

\textsuperscript{277} Jokic, (1993), p. 185.

disjunct is $Q_3$-type-properties. Thus, Jokic’s disjunctive analysis leaves us with the following dilemma for the fetus has the disjunctive properties of: (i) Being identical either to a future object ($Q_2$-properties that it will be capable of having interest, or (ii) to a merely possible (adult) individual (and thus have the $Q_3$-property that it would have been capable of having interests.) The $Q_p$ property disjunction is between $Q_2$ and $Q_3$ properties. This leads one to need to determine whether or not this disjunction can grant $Q$ in (A) for fetuses to have present rights.

Are $Q_p$-properties sufficient to confer or grant present rights to their bearers takes the following form: “can this disjunctive property (that $Q_p$ turned out to be) justify ascription of rights to fetuses?” 279 Another way to ask this is: Are the $Q_p$-properties more like $Q_1$- or $Q_3$-properties? Jokic does not think that the disjunctive property is enough to secure fetal rights. It seems that the disjunctive property in question is halfway between $Q_2$- and $Q_3$-properties, in fact, because it is a disjunction of the two: $Q_p = (Q_2 \vee Q_3)$. So the properties are too far from $Q_1$-properties and excessively close to $Q_3$-properties to justify ascription of present rights to the fetus. 280 For one to really visualize Jokic’s argument consider $Q_1$ properties to be on the far left, while $Q_2$ and $Q_3$ properties are in order from left to right, and to the right of $Q_1$ properties. If one considers the $Q_p$ properties as being in the middle of the $Q_2$ and $Q_3$ properties, since it is a disjunct of the two, it is clear to see that the potentiality property is too far from $Q_1$ and too close to $Q_3$ properties to be capable to grant present rights to fetuses based on their potentiality.

Jokic is not, however, the only person to argue against potentialism in this manner. Elizabeth Harman has done so as well, and I will show how her argument has the same disjunctive character that Jokic’s has, and using both of these we can see that the disjunctive strategy is a viable method for dealing with the potentiality argument against abortion, stem cell research, and especially human cloning.


280 Jokic does, however, think that the $Q_p$ properties grant present rights to actual future individuals, even though it does not grant them to fetuses. I think that he has this wrong, but will neither explain his argument nor present mine against his in this work.
Harman’s “Actual Future Principle”

Elizabeth Harman’s argument for a very liberal view on abortion comes in her paper “Creation Ethics,”281 and from this argument one can understand how she view the present rights of early fetuses. From her argument on about early fetuses, one can see that the she is employing the same disjunctive strategy that Jokic used some ten years earlier, but her motivation is different than his metaphysical argument that involve Noman. Let’s review her argument using her “Actual Future Principle.”

Since Harman is concerned with a discussion about early fetuses, it will be useful to have a definition of early fetuses. She defines an early fetus as a fetus before it has any intrinsic properties that themselves confer moral status on the fetus. So, similar to Jokic, Harman wants to eliminate the possibility that a fertilized egg has full moral status, but she also does not want to venture a guess as to what intrinsic properties will actually grant the fetus full moral status or as Jokic would claim, present rights, especially that present right not to be aborted. Ultimately Harman wants to defend both the very liberal view on abortion and the Actual Future Principle. In order to motivate this view, she presents us with her Katherine Example.

In the Katherine Example Harman is going to try to reconcile three different intuitions with a general principle. The three intuitions are: (i1) The deaths of early fetuses do not matter morally (those that do not have the intrinsic properties that grant full moral status); (i2) Early fetuses that will be carried to term are appropriate objects of love; and (i3) Because of (i2), Katherine thinks that early fetuses have some moral status. These intuitions conjoined with the equality intuition causes evaluative tension. (EI) “For any two early fetuses at the same stage of development and in the same health, either both have some moral status or neither does.”282 The problem is how to reconcile (EI) with intuitions (i1) and (i2) especially when (i3) holds?


According to Harman, the best way to understand and eliminate the tension is with her Actual Future Principle, which states: (AFP) “An early fetus that will become a person has some moral status; and an early fetus that will die while it is still an early fetus has no moral status.”\(^{283}\) (AFP) claims that the actual future determines whether an early fetus has present moral status or present rights. The reason that I think Harman’s AFP is disjunctive in nature like Jokic’s is that it logically equivalent to the following AFP* principle: If an early fetus will become a person, then it has some moral status, or if an early fetus will not become a person, then it has no moral status. So the disjunction is simply between whether or not the early fetus will have an actual future or not. It is logically necessary that it either has a future or it does not. But her disjunctive strategy does not involve the same kind of metaphysical backing that Jokic uses to justify his disjunction between the two Q properties.

The problem with Harman’s view is that it is not intuitive enough to solve issues for abortion, cloning, and stem cell research if one does not already have the very liberal view on these issues. There are also issues with whether or not being epistemologically blind to the future is relevant to her use of AFP. This is to say that if one aborts a fetus or potential clone, then it does not have an actual future, and if this is the case, then there is never an instance of an improper abortion. Harman is aware of some of these issues, and tries to explain them away briefly, but as it stands, her disjunctive strategy for dealing with the potential objection by appealing to the actual future fail to convince in the same way that Jokic’s do.

From these two attempts to deal with potentiality as an objection to abortion in particular and cloning more generally, one can see that the potentiality, while \textit{prima facie} cogent, fails as a relevant property to grant present rights or full moral status to fetuses and future individuals. So the objection that human cloning will cause the death of too many potential humans, one needs to show that those potential humans have present rights or presently have full moral status before there is a good reason to stop the science of human cloning and the right for women to request and obtain abortions.

Moral Status and Reproductive Human Cloning

The issue of reproductive human cloning with respect to the moral status of the possible clone is quite similar to the debate in the research and therapeutic case. Given certain conditions there is no reason to think that a clone would not have the same properties that a regular fetus would have. There does not seem to be any properties, other than originating, that would change the moral assessment of a human clone. If one takes the originating property of something to be morally relevant to its having a certain kind of moral status as a biological entity, then one would have to have a theory that would support such a claim. There are those that are Aristotelian and believe that how one comes into being is an essential property of that being, but if two things are similar in all respects but the originating cause, then how can one have more moral status than the other would be hard to explain if they are both autonomous agents.

Three Single Conditions For Moral Status

There are three general theories of moral status that are worth evaluating, and all of them take it that there is one sole criterion, both necessary and sufficient condition, for full moral status, they are: life, moral agency, and sentience. Interestingly, the life view is something that many Christians would find plausible as a criterion of full moral status, but we shall see how this condition holds up upon closer evaluation below. Deontologists or Kantians, on the other hand, think that being a moral agent is both necessary and sufficient for full moral status. Moral agency as a necessary cognition for full moral status is too strong a condition for many to agree. There seem to be some things that, although not moral agents, are entitled to moral obligations from other moral agents; that is, they have some moral status, and some think could have full moral status. Examples such as young children, adult animals, and comatose humans are one reason to doubt the necessary condition of rational agency.

The utilitarians or consequentialists generally defend sentience as the lone criterion for full, and even partial, moral status. This criterion, however, lacks a certain kind of sharpness that allows for clear demarcation as to what has full moral status from
those things that do not. The sentience view seems to require more from our current epistemological situation than it can currently handle. Even though this is a limitation of the sentience view, I believe it is the best single criterion view of moral status that there is, and if I had to choose from just one of the three criteria mentioned, I would choose the sentience view, for it is at least a sufficient condition, and may very well be necessary. Let us begin our look at the three different views taking them in the following order: life, moral agency, and sentience.

The way that I will proceed in all of these investigations for an attempt to define moral status is that I will assume that there are really four questions that need to be asked or as I see it, for variables that need to be defined:

(i) $X \rightarrow$ Full Moral Status
(ii) Full Moral Status $\rightarrow X$
(iii) $X \rightarrow$ Some Moral Status
(iv) Some Moral Status $\rightarrow X$

In (i) and (iii) one is trying to find the sufficient condition(s) for what it is for some organism to have either Full Moral Status (FMS) or Some Moral Status (SMS). For (ii) and (iv), however, one is concerned with what the necessary condition(s) for FMS and SMS are. In the end, I will claim that these are difficult to discern, and we cannot get a full analysis of what it is to have FMS or SMS, but what we can do is determine in the cases of cloning and abortion whether or not the entities in question have FMS. But we will see more of this partial analysis shortly.

**Life View of Moral Status**

The “Life View” of moral status is just that life is a relevant criterion for moral status. The crucial question is: “what kind of a condition is it that life is when it comes to moral assessment?” There are two ways to think of the life criterion as relevant to moral status. First is the “Life Only” view, which states that life is both a necessary

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284 I take the labels “Life Only” and “Life Plus” view from Mary Anne Warren’s book *Moral Status*. Since her book is the first book dedicated to the sole topic of defining moral status, I shall use the terms that she puts forth in her text.
and a sufficient condition for something to have moral status. Albert Schweitzer is one of few individuals that hold the life only view. What is interesting about the life only view is that it makes the question of “full” versus “some” moral status irrelevant. For under the “Life Only” view presented by Schweitzer, all living things have moral status because they are alive, and by the very fact that they are all living in the same manner, they have the exact same moral status.

The “Life Plus” view is the claim that life is a sufficient condition to achieving SMS, but it is not sufficient for FMS. So, on the “Life Plus” view some things that are not alive can have moral status by virtue of satisfying some other conditions. Although I am not concerned with the moral or normative status of non-living organisms in this dissertation, then there needs to be some room for talk of moral status of non-living things. For the rest of this discussion, I want to focus on three things: defining life, Schweitzer’s “Life Only” view and the modification to the “Life Plus” view. After considering the two views, I will show what is lacking in them both.

**Defining ‘Life’**. If one is going to have a criterion that sets either a sufficient or an necessary and sufficient condition of something to have moral status, then one needs to have an understanding of what the criterion is, and in this case it is the term ‘life’. Now there is an old joke that says that analytic philosophers have take the old question: “What is the meaning of life?” and changed it to: “What is the meaning of ‘life’?” This being the case, it would seem that we would have a fully drawn out analysis of ‘life’, but we do not. What we do have is, however, helpful in the attainment of a fuller analysis. In fact, a complete analysis of the concept ‘life’ is probably as elusive as the project for determining a complete analysis of ‘moral status’, but we must attempt such an analysis.

The *Webster’s Encyclopedic Unabridged Dictionary of the English Language* defines life thusly: “‘life’: the condition that distinguishes animals and plants from inorganic objects and dead organisms, being manifested by growth through metabolism,

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285 Great works of art, like Michelangelo’s Pieta, seem to have some normative worth or some moral status, but it is not by virtue of any intrinsic property of living that it gets its worth. I shall leave the question of what constitutes the moral worthiness of art for a future discussion.
reproduction, and the power of adaptation to environment through changes originating internally.” This is by no means a bad place to start. If, however, we wanted a fuller definition of what it is to be alive we could look to someone like, Paul Churchland when he wrote:

While it is no doubt true that metabolic activities can manifest themselves in a nomically heterogeneous variety of substrates – governed by sundry chemical principles, or by mnechanical principles, or by electromagnetic principles - it is also true that there is a deeper level of physical law that comprehends all of these cases as instances, and in whose terms the fundamental activities of living matter can be characterized. The theory that achieves this remarkable result is non-equilibrium thermodynamics, a theory of great generality whose concern is with the dynamics, quality, and distribution of energy.... A living thing is a dissipative system, a semi-closed local entropic minimum, whose internal negative entropy filters out further negative entropy from the energy flowing through it.  

As precise as a “semi-closed local entropic minimum dissipative system is,” it is nice to know that the intuitive metabolizes, reproduction, and adaptation are the capacities that we are looking for in a definition of ‘life’. One general objection to any of the criteria for life as necessary is that there are cases where one could be alive but unable to reproduce, or alive but unable to adapt (this would make the organism extinct rather quickly), or those that do not metabolize.

There are other definitions of life that revolve around teleology, but for our purposes it is not necessary to go into these concern. What one needs to understand is that life is diverse and it is more likely that the modes that life can and does take far outstrips our ability to recognize life as such. Of all the worries about defining life, there is one concept that I will not deal with here: whether or not those that were once


living, but are no longer living have moral status. That is, do we have a moral obligation to the dead? At this point I want to leave this as an open question, however, my general intuitions is that dead or no longer animate organisms do not have moral status. This is, however, a separate question from whether or not we have to carry out the wished of the living after they have died.

**Schweitzer’s View.** One of the better summaries of Schweitzer’s view comes from Warren, she writes:

> Schweitzer’s theory of moral status is based upon what he calls “the most immediate fact of man’s consciousness”, namely that “I am life that wills to live, in the midst of life that wills to live.” From this premiss, he draws the conclusion that “Ethics…[consists in] responsibility without limit towards all that lives.” He concludes, further, that all attempts to sort living things into groups whose members have different moral status are dangerous and misguided.\(^{288}\)

As a Christian theologian it is not surprising that Schweitzer had the view that he did. What is surprising is that he was disappointed with much of Christian ethics. So he moved away from much of the Christian ethics he knew and adopted the view of *ahimsa* (non-violence) from Buddhist and Jain ethics. The kind of principle that Schweitzer was looking for had to be assessable to both thought and experience; it had to be relevant to human relationships to each other and the rest of the universe; and it had to be world affirming. That is he wanted there to be a greater focus on doing good rather than doing no harm. Schweitzer called his view of ethics, “Reverence for Life.” One might think of him as a religious existentialist, but for Schweitzer, it was the fact that organisms were alive that made the have moral status, and for him, all life was the same.

Having this view, one might think that it would require that one would have to modify their behavior mightily in order to live ethically, and so Schweitzer could not really have held this extreme view of moral obligation to other things that are alive, but he did. For example, he thinks that a person who reveres life “tears no leaf from a tree,

plucks no flower, and takes care to crush no insect. If in the summer he is working by lamplight, he prefers to keep the window shut and breathe a stuffy atmosphere rather than see one insect after another fall with singed wings upon his table."

This is a rather stiff requirement of people that they not kill things. For part of the definition of life is that one metabolizes those other non-entropic entities. It is a fact of our lives that we eat other living or once animated organisms. This is one of the problems for this view, that it requires too much of other living things. In addition to this worry, there is the problem that there is no practical moral guidance presented in Schweitzer’s view.

On the first objection there does not seem to be any way to avoid killing other living things to life, and if all living things have the same moral status, then killing microbes, ants, or any other living thing is just as immoral as killing another person. In essence, Schweitzer’s view seems to entail the denial of the seeming axiomatic moral principle “ought implies can.” If this is the case, then it seems to be a reductio against Schweitzer’s view. As one commentator on Schweitzer called the view, “biotheism,” and this seems to be the best way to describe the view. If all organisms have the same moral status, then the killing of bacteria would be the moral equivalent of a holocaust, and clearly brushing one’s teeth cannot be a holocaust. But Schweitzer is aware of this problem, and writes:

The necessity to destroy and to injure life is imposed upon me…In order to preserve my own existence, I must defend against the existence which injures it. I become the hunter of the mouse which inhabits my house, a murderer of the insect which wants to have its nest here, a mass-murderer of the bacteria which may endanger my life. I get my food by destroying plants and animals.  

This leads us to Schweitzer’s view that the way to make moral decisions, which is lacking in its philosophical sophistication and support of common moral sense. He thinks that since we cannot avoid the killing of other living things and he rejects any

289 Schweitzer, Civilization and Ethics, (1929) page 247.

290 Schweitzer, Civilization and Ethics, (1929) page 254-5.
relative ethics, he writes that each of us is compelled “to decide for himself in each case how far he can remain ethical and how far he must submit himself to the necessity for the destruction of and injury to life, and therewith incur guilt.”\textsuperscript{291} This leads us to the following objection about his view presenting no moral guidance.

But even though there is this seeming impracticality of the view from the necessity of killing, there is the general lack of moral guidance presented by this single criterion of moral status. Moreover, Schweitzer’s claim that each man should “decide for himself” is not going to get a moral theory rolling in the right direction. Each of us have different backgrounds and theoretical commitments that will taint our moral intuitions. Suffice it to say that this alone is sufficient to warrant that the life only view is not enough to get the kind of moral theory that one wants or needs to make moral decisions in a reasoned way. But there are those that think that there something important in the life view, but not that life is both necessary and sufficient. Let us look briefly at the “Life Plus” view.

\textbf{“Life Plus” View.} The “Life Plus” view states that life is sufficient for some moral status, but it is not sufficient for full moral status. Plus, there are some things that although not living can gain moral status by virtue of some other criteria according to the life plus view. I am not concerned with the second aspect of this theory, but I am interested in the first claim that life is sufficient for some moral status.

The reason that this aspect of this view will matter morally is that fetuses, clones, stem cells, and the like are all most definitely alive. If they are alive and being alive is a sufficient condition for some moral status, then these organisms are owed a certain amount of moral consideration. I do not see that this is a view that can be defended in any coherent way. Much of the cloning, abortion, and stem cell debate hinges on just how much moral status these organisms have or will have. I have presented a view above where I argued that these organisms have possible rights and possible moral consideration as future individuals, but this does not entitle them to rights as current fetuses, clones, and stem cells. From this earlier discussion, I claim that life, although a necessary condition for Full Moral Status, it is not sufficient for

\textsuperscript{291} Schweitzer, \textit{Civilization and Ethics}, (1929) page 255.
some moral status to even organisms like fetuses, early embryos or clones, and stem cells. There is still a problem with other living organisms like trees and higher mammals that are living. What kind of moral status are we going to grant to these living thing, for I do grant that they have some moral status. For now, I do not think that I have to answer this question, but suffice it to say that there are good reasons to think that an adult dog or a mature oak have more moral status than does a fetus clone or stem cell. Let us now move on to the next criterion for evaluation for moral status, moral agency.

Moral Agency View of Moral Status

In Moral Status, Mary Anne Warren takes a position she calls the “Personhood View” of moral status. There are several ways to cash this particular view out, and I shall present a few of these views below. I want to refer to this kind of view as the “Moral Agency View” of moral status because it maps onto the earlier discussion of Kant from Chapter II. In fact, Kant thought that being a moral agent was both necessary and sufficient for having Full Moral Status. It is my own belief that being a moral agent is only sufficient for Full Moral Status, but I will explain why below. In the rest of this section on the moral agency view of moral status, I shall focus on three versions of this view: the personhood only view, the personhood plus view, and the moral agency view.

Personhood Only View. There are several ways to try to classify the views under consideration. Since there is a strong conceptual link between being a person and an agent that has moral status, some might think that trying to define the one in terms of the other is inappropriate. The minimalist view of personhood only requires that some person have the capacity for thought and self-awareness, and that some kind of moral agency is not required for full moral status. This is in stark contrast to what I would call the Moral Agency View, which I will explain below. The way that Warren tries to

292 In Chapter Four of Moral Status, Mary Anne Warren makes this division of personhood a little differently than the way that I am making the distinction. Since I am concerned primarily with moral status and not personhood, I think my characterization is a better way to divide the matter. Conceptually, however, I have little disagreement with the substantive parts of her discussion on this point.
capture this distinction is to say that this kind of view is a minimalist view of what it is to be a person.

The personhood only view, as I have just stated it, only requires that something have particular capacities and abilities to have full moral status. This is supposed to be both necessary and sufficient for full moral status. And what we find in this case is that person is a psychological concept and not a biological one. If there were the kind of organisms that had the capacities for thought, reflection, and self-awareness, then one would consider that organism a person. The virtue of this kind of understanding of what it is to be a person allows the theory to not be chauvinistic about personhood like views that equate personhood with being a member of the human race. Moreover, it allows for adult humans that are in a coma or some other debilitating mental state to continue to have the same moral status as they did when their capacities were active. This is the theoretical virtue of capacities aspect of the “Personhood Only View”

But even though there is this theoretical virtue, the theory requires that we grant Full Moral Status to things that we may not want to. In the first place, it may require that we grant Full Moral Status to a conceptus, and even perhaps the ova and sperm that gave rise to the conceptus. There are those that have the theoretical positions that full moral status begins at conception, but I do not share that view. In fact, I believe that I have argued for a position as to why a conceptus, fetus, and early clone do not have rights and thus do not have full moral status.\footnote{I know that religious views vary, but the dominant view is that life, in the full moral status sense, begins at conception. I do not know of any way to argue against this point straight away even though the view seems to be fundamentally flawed. Nevertheless, there does seem to be room to argue that there are situations in which it is morally permissible to abort or destroy and early fetus or conceptus: Judith Jarvis Thomson’s article, \textit{A Defense of Abortion}, is one such example. If paper along this line are correct, then the intuition that fetuses and early human organisms do no have full moral status can be give some teeth.} If this intuition is correct, that these early human organisms do not have full moral status, and they do not have it in virtue of some possible capacity, then there is reason to think that the personhood only view is false, which leads us to the “Personhood Plus View.”

**Personhood Plus View.** In contrast to the minimalist view of what it is to be a person, one could hold to a maximalist view of what it is to be a person. This just states that if
something is a person, then that person is, or is potentially, a moral agent.\textsuperscript{294} From this we are supposed to understand that this person has full moral status. Such a maximalist view of what it is to be a person is present in the view of people like John Locke. He writes, a person “stands for…a thinking intelligent being, that has reasons and reflection, and can consider itself as itself, the same thinking things, in different times and places.”\textsuperscript{295} Now this is not just a capacity, but an actual ability, and thus a stronger requirement than the minimalist view. But there is the general problem of the coma patient that does not have a certain type of ability, but may have an unrealized capacity, that makes this stronger condition for moral status seem like too high a price to pay for defining moral status.

There are some “Personhood Plus” views of moral status that are not as stringent as the one just mentioned. Tom Regan has a condition he calls, “being the subject of a life.” What this condition allows him is that all subjects of a life have the same kind of moral status as all other subjects of a life. I do not want to go through the details of his theory here, for in the long run, I am not concerned with those subjects of a life that are not moral agents. But for Regan, there are plenty of animals that are subjects of a life that should be granted full moral status because they are in fact subjects of a life. To get a sense of what Regan means by a subject of a life, let me quote him, and one should notice the similarities to Locke. He thinks they include the following capacities:

- beliefs and desires; perception, memory, an a sense of the future, including their own future; an emotional life together with feelings of pleasure and pain;
- preference and welfare interest; the ability to initiate action in pursuit of their desires and goals; a psychophysical identity over time; and an individual welfare in the sense that their experiential life fares well or ill for them, logically

\textsuperscript{294} Since I have dealt with the problem of potentiality above, I would like this aspect of the definition to be removed, for it seem to be otiose as a theoretical point. That is, if it is left in, then there does not seem to be much difference between the normal view and the plus view of personhood, and without this distinction, there is no theoretical gain.

independently of their utility for others and…of their being the object of anyone else’s interests.\textsuperscript{296}

This Regan considers this to be the right kind of analysis for what it means to be a subject of a life. Regan is convinced that his condition of subject of a life is a sufficient condition for something to have moral status, he is almost convinced that it is necessary as well. This can be seen in the following: “it is radically unclear how the attribution of inherent value to…individuals [that are not subjects] can be made intelligible and nonarbitrary.”\textsuperscript{297} What he means is that if one wants to give moral status to trees and other living things, like the life views, then there is no way to do it that is not capricious in nature. Being a subject is essentially what is necessary for having moral status, and this he thinks can be attributed to animals.

He does not think, however, that one has to be a moral agent to be a subject or a person. Peter Singer holds the same kind of view in several of his writings. **Moral Agent View.** One of the stronger conditions for full moral status is that of being a moral agent. For Kant being a moral agent was both necessary and sufficient for something, person, angle, or God, to have full moral status. In Chapter Two, we spent quite a bit of time presenting Kant’s view of what it is for some action to be a moral action. In those discussions there was never talk of anything other than moral agents whose actions were to correspond to some version of Kant’s Categorical Imperative.

It might seem a very strong condition that being a moral agent is both necessary and sufficient for something to have moral status, but this is the consequence of Kant’s views of the Categorical Imperatives and being able to act from duty. So, if actions are only good in situations where one’s action was motivated by a sense of duty in accordance with the categorical imperative, then only moral agents can act morally or immorally. For if one is not capable of being motivated by a sense of duty, then one’s actions cannot not be good. This of course is the most counterintuitive part of Kant’s ethics. That is, there are instances where habit of seemingly good behavior would not


\textsuperscript{297} Regan, (1982), p. 246.
be seen as good if it was not motivated by a sense of duty. This I take to be the necessary condition of moral status as moral agency.

For if Kant is right, and moral agency is a necessary condition for full moral status, then Kant excludes: animals, human infants, young children, and humans that are mentally disabled. Perhaps Kant would assent to the exclusion of these individuals from having full moral status, but today, it seems unlikely that we would not give full moral status to at least young children and the moderately disabled individuals even if we left open the issue of animals and infants.

Thus far, I have only allowed for life to be a necessary condition for something to have both some moral status and for full moral status. And even though I am sympathetic to the Kantian rational that leads him to the categorical imperative, I am not sympathetic to the claim that one has to be a moral agent if one is to have full moral status. I take it that being a moral agent is definitely a sufficient condition for having full moral status, but not that being a moral agent is necessary for such status. I take it that adult humans that are disabled and young children all have full moral status, and we have moral obligations to them even if they are unable to be moral agents back to us.

Moreover, I am aware that there is a concern for moral agency as a sufficient condition for full moral status. Some might claim that futuristic entities like Data, who is an android, from the science fiction franchise Star Trek, might not have full moral status, but is in fact a moral agent. There are two ways to try to motivate the fact that Data does not deserve full moral status. First, one could claim that Data is not alive. Given the definition of living above, it seems that in the narrow sense of living as an organic entity, he is not alive. But if we consider the list above to be a disjunctive list, then Data’s ability to adapt to his environment as well as he requirement for energy could render him alive in a wider sense. Secondly, one could argue that Data cannot reproduce. But not being able to reproduce does not mean that one is not alive. Men that have had vasectomies and women that have had hysterectomies cannot reproduce, but no one would deny that they are alive. So, in the end, I take it that Data, and entities like him, would engender full moral status if they were in fact moral agent. Thus, making moral agency a sufficient condition for full moral status, but not a necessary
one, which I think is the correct analysis. But similarly to the Kantian view of moral agency as both necessary and sufficient condition for full moral status, does not capture all the kinds of individuals that have full moral status, so in order to get young children and disabled adults within the net of full moral status, we need to have another sufficient condition for moral status. This final condition is sentience.

**Sentience View of Moral Status**

One of the most compelling conditions for giving moral status, either full or partial, is the condition of sentience. Reflecting back on Bentham, our two sovereign masters really do seem to be pleasure and pain. With this in mind, it is easy to see why things that are sentient warrant moral concern from other moral agents. In what follows, I will sketch two different views of sentience as a criterion for something to have full moral status: “Sentience Only” view and the “Sentience Plus” view. Included in this analysis I will have to come to some understanding as to what sentience is in order to apply it as a condition for grounding the moral status of things that have sentience. From there, I claim that sentience is a sufficient condition for full moral status. Let us begin the discussion by trying to get clear on sentience.

**Defining Sentience.** There are several ways to try to get the criteria of sentience down to a workable condition. In some ways trying to define sentience is as problematic as trying to define moral status itself, but there are cues at to what might be limiting factors into what sentience might be. According to Warren, “[s]entience is the capacity to feel pleasure and pain.”


She then enlists the help of the philosophy of mind to try to get the point across. One might try to defend sentience and consciousness as coextensive. Appealing to Nagel, Warren writes, “[i]f an organism has experiences then, in Tom Nagel’s words, there is ‘something it is like to be that organism—something it is life for the organism’.”

correct and that folk psychological notions of consciousness are correct in assessing consciousness, it is not logically sufficient to capture the nature of sentience.

Warren claims that “[s]entience is the capacity to have, not just experiences of some sort or other, but experiences that are felt as pleasurable or painful.”\(^ {300}\) She then claims that “[b]ecause not all conscious experience are either pleasurable or painful, evidence of consciousness is not necessarily evidence of sentience.”\(^ {301}\) In other words consciousness is not a sufficient condition for sentience and the best theoretical example is the character Data from *Star Trek*. What is nice about the Data example is that he is conscious, but not sentient, is a moral agent, and thus has full moral status. Additional worries about sentience as a condition for moral status, both full and partial, concerns the sentience as something that is experiences versus sentience as either a capacity or a potential capacity. The potential capacity is not sufficient for granting full moral status, as I have argued above, but there may be something to sentience as a capacity that is not realized in an agent. This is the same gap that occurs for adult humans that are in a coma for the moral agent condition for full moral status. This gap is the kind of a gap that I am unsure how to bridge. For on the one hand, I would like to allow for the condition for euthanasia in cases where there is no sentience and moral agency. But the worry is that there may be cases where this capacity is temporally lacking. If the loss of the capacity is temporary and active euthanasia is performed, then the action could be considered immoral because the individual should have been granted full moral status. This is a gap that I do not currently have a bridge for, and do not see a way around. It seems that the best alternative we have is to use the sentience criterion and allow the individual in a coma enough time for an attempted recovery. But since we have enough data on coma recovery, there are reasonable expectations for some coma patients to not recover in a way that we would like.

The same kind of worry will occur for cases of paralyzed individuals that cannot feel below the neck. If there is no way for them to feel that their legs have been


amputated, then there is no reason to think that it is acceptable to remove their legs without their consent. So there is a theoretical gap, but it is not an intolerable gap that requires a revolution in the analysis of moral status.

Even though there are cases that cause there to be a gap in the sentience line, one still has to have a theory as to how to draw the sentience line. Peter Carruthers believes that animals have experiences, but they are never conscious of their experiences. Like Descartes, there is something important in the use of language that allows animals to be conscious of these pains and such. Peter Singer writes of the line as such: “somewhere between a shrimp and an oyster seems as good a place to draw the [sentience] line as any, and better than most.”302 Warren has proposed some condition for trying to determine if some non-human organism is sentient or not. To paraphrase her tests for sentience is most helpful in this instance; she give four: (1) Check for a nervous system? Is it like human or not?; (2) Observe behavior after an injury or exposure to noxious stimuli; (3) Look for the presence of sense organs and behavior indicative of perceptual ability; or (4) Determine if there is a presence of neurochemicals that relate to experiencing pleasure, pain, or emotions.303

One of the problems with Warren’s method is that when we encounter animals that are so different from us physically, we begin to lose the ability to tell if they are sentient or not. Fish stretch the boundary of our sentience concepts, but squid, spiders, and other insects, make it even more difficult. So how much moral status these animals deserve is difficult to determine. Warren thinks that many of the complex invertebrate animals are in fact sentient. Even though there is this epistemological difficulty of determining animals that are sentient to the right degree from those that are not sentient enough, we have a fairly good idea as to what animals that should be granted moral status under the currently incomplete understanding of sentience. And even though


303 Warren, (1997), p. 60. One of the interesting facts about question (4) is that there are some plants that emit chemicals that are similar to human chemicals emitted during pain stimuli. This could be explained in an evolutionary model. That is, if we are descended from organic life and the principles of evolution are conservative, then it makes sense that the same kind of chemicals are emitted. The crucial question, however, is: “Does this matter to the moral assessment of plant killing?” It seem that it does not, at least at this time.
there is this problem of underdetermination of moral status, there is still a method for ethical decision making, unlike the life view, and sentience allows for more entities than just the moral agent view. Now that I have presented an understanding of what it is for something to be sentient, let us move on to the different sentience views, beginning with the “Sentience Only” view.

**Sentience Only View.** In *Moral Status*, Warren presents the “Sentience Only” view as having two general claims: Sentience is “(1) a necessary condition for having any moral status at all; and (2) a sufficient condition for having full and equal moral status.” Warren does not really explain what it would be for something to have full and equal moral status. We know what the full moral status claim is, it is the kind of moral status that is generally granted to normally functioning human adults. But her description of the view is conjunctive and requires an understanding as to what it would be to have equal moral status.

There are two possibilities that Warren could have in mind in this case. First, she could mean that all sentient creatures have the exact same kind of moral status, namely full moral status. But this seems to be an unlikely point of view. For if she is serious in her view: that insects and other invertebrates animals are sentient, then they would garner the same full moral status as normal adult humans. I think this is an unlikely view for her to take, even though it seems to be what she is implying. More likely it is that the equal moral status is that animals with a certain level of sentience have the same moral status. This means that if something has the same amount of sentience as a normal human, then it should be granted full moral status. But if something had half the sentience of normal adult humans and if some other animal had the same level of sentience, then they would have an equal moral status. But the former view is supported by here other argument rather than the latter view, and can be seen by the following:

In short, sentience is probably the only plausible criterion of strong moral status that most common sentient invertebrate animals meet. If *their* sentience is not sufficient for full moral status, then the Sentience Only View cannot be right.

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And it is not sufficient, for the compelling reason that human beings cannot exist—even as peaceful gathers of wild plants—without sometimes putting their own interests ahead of those of other sentient animals.\textsuperscript{305}

The problem is that neither view seems to be right; and thus the second, conjunctive claim is false.

Some think there is a second problem with the “Sentience Only” view. That is, the requirement that for any moral status at all, the thing has to be sentient. Excluding the strange case of Data from Star Trek as the paradigm case of full moral status without sentience. Data has full moral status because he is a moral agent. One can see that Warren has a point. It would be very strange indeed if there was some organism that was not sentient, but had full moral status. For all that we know there is a very high correlation between organic entities that are not artificially intelligent and sentience. So, having something that is not sentient with moral status and that thing is not a moral agent like Data, is unlikely. Thus, we can grant that it is not a necessary condition, but it very nearly is. There is, however another alternative to the “Sentience Only” view, “Sentience Plus” view.

**Sentience Plus View.** Under the “Sentience Plus” view, sentience is a relevant criterion for full moral status, but not the only one. There are four general claims that a person that holds the sentience only view would assent to according to Warren. (i) If an organism is sentient, then we have moral obligations to it. (ii) But there may be non-sentient things that have moral status: ecosystems and species for example. (iii) Some sentient things require more moral status than others. (iv) Although not a necessary condition for full moral status, sentience is a sufficient for some moral status, but it is not sufficient for full moral status.

I think that Warren has it partially right in this analysis. I think that a particular degree of sentience is required for full moral status, and that some sentience grounds a belief that some animal has some moral status. The paradigm case of sentience and full moral status are humans. Granted there are cases that stretch the boundaries of the concept. In those cases, it clear that we should tread lightly, but I am not convinced that

spiders, snakes, and even early infants have the same rights as adult dogs and chimpanzees. And if her claim (iv) is correct, the sentience of an infant may not be sufficient for full moral status.

I am also inclined to think that her claim (ii) is false. I do not see any compelling reason to think that species and ecosystems have a particular moral status. If there is any reason at all to want to defend and protect the environment, then it is an instrumental good for those organisms that live in that ecosystem. I agree with Singer when he writes about species thusly: they [species] “are not conscious entities and so do not have interests above and beyond the interests of the individual animals that are members of the species.” And I would say to the deep ecologists that believe that plant and animal species, populations, and habitats can all have moral status, that these things do not have moral status. If one thinks in the following way, one can see that there is not anything intrinsic about these species and places that warrants special care. Consider that humans cannot stop the extinction of every animal, even those that we are not responsible for creating extinction pressure. If this is the case, then we are not required to even if these animals are sentient and have the same moral status that humans have. Thus the “ought implies can” principle is at work here. The same goes for environmental concerns. I am not saying that we do not have some obligation to protect parts of the ecosystem, especially if harming it will directly harm humans because I think we do. But we do, not because of the specials status of the ecosystem, but because of the effect that not doing so will have on humans, who we take to have full moral status.

One way to try to understand this point I am trying to make is that there are cases where the moral status is the same, but because some one could do something, then they ought to. This sounds counterintuitive to what I have said before, but let us see how it might work. According to Martin Benjamin, persons and simple beings have moral status. He also believes that persons have reflexive consciousness and because of

this, people have higher moral status than just those with consciousness alone. I think
something like this is right, or it could be that we have the same moral status, but those
with reflexive consciousness have more responsibility. This seems to be the condition,
not that we have more status, just more responsibility. This is the same view that those
that make more money should shoulder more of the tax burden for a society, why?
Because they can is in effect the reason. This might seem like I am confusing the
“ought implies can” principle, but in point of fact, I am using the contrapositive of it as
a premise: cannot implies ought not. So if there is a group that cannot pay the same
amount of taxes and there are some that can and a good society is supposed to work in a
particular way, then I say that those that can should do what they can to make things
work.

This is the same kind of principle that I would have applied in the moral case. If
we have more moral status than some lower animal, then it might not know it has a
moral obligation to us, but we still have certain obligations to it, like not harming it.
But more importantly if we want the ecosystem to work correctly, then we have an
obligation to treat it in such a way that it will not cause us and the other animal in it in a
manner that is detrimental to the lives of the animals in the system.

In the end I want to claim that there is a function from degree of sentience to
degree of moral status, and the function is not one to one because variation of sentience
in the human species should not have a corresponding variation in the moral status of
the members of that species. Sentience to a more or less degree of a normally
functioning human is a sufficient condition for full moral status, and this is all I need
with life as a necessary condition and moral agency as another sufficient condition for
full moral status, to get my moral status theory to work. But before I explain how this
theory is relevant to research and therapeutic cloning and reproductive cloning, I want
to explain the more complex, multi-criterial analysis of moral status presented by Mary
Anne Warren in her book.
Mary Anne Warren’s Multi-Criterial Definition Of Moral Status

Mary Anne Warren think that the three conditions stated above are relevant criteria for an analysis of moral status, but she does not think that they capture the concept completely. Later in her book she introduces the notion of relationships as part of the concept of moral status. From this and the other conditions she creates what she calls her, “multi-criterial” analysis of moral status. From these conditions she tries to develop a theory of how one should deal with cases of abortion, euthanasia, and animal rights. In what follows, I shall briefly present her seven conditions and argue that the theoretical work of many of her conditions can be done by the three conditions stated above. One of her main goals of her book, Moral Status, was to provide an analysis of the concept of Full Moral Status. But when it comes time to do such work, she does not finish it.

What she does do is provide a list of conditions that provide cases of Some Moral Status, and from there one is to make moral decisions based on some condition of more or less moral status. I shall show that these same conclusions can be gotten without the use of her seven principles and can be had with my two sufficient conditions and one necessary condition. After I have completed this task, I shall show how the concept of moral status allows for work on reproductive cloning as well as research cloning can proceed in an unimpeded manner.

Warren’s Seven Conditions of a Multi-Criterial Account

Mary Anne Warren tries to tie moral status to both intrinsic properties and relational properties. One of the key insights that she thinks she has brought to the definition of moral status debate hinges on relational qualities. She has added these relational conditions as a way to try to bring in some of the insight that feminist ethics have brought to the moral debates. Some of the more interesting alternatives to rational conditions set forth by Kant, Aristotle, and Mill, consist of the emotive nature of relationships. From addition of relational properties to the moral status question, we are supposed to get a better understanding of what it is for something to have moral status.
She still thinks that the three key properties are: life, sentience, and moral agency, but for her there is still something lacking in these conditions when it comes to defining moral status as both a full and partial concept. Much of what she adds in her seven conditions is an effort to try to get her theory to mesh with our common moral sentiments, which was not her original stated goal. Why she does this is easy to explain: she wants to get the answers right in the common cases. This is in stark contrast to some of the counterintuitive conclusions that come out of writers like Kant. For example, habitual actions that seem good are not good unless done from a good motive. Or, even more stringent, on behalf of Kant, one ought to never tell a lie under any circumstances. Both of these claims run afoul of our common moral reasoning. For this reason, Warren tries to stop gap all the worrisome places and provides a hierarchical method for determining the moral status of something, and ultimately how much moral concern we should give it.

After I present her conditions, I shall argue that the higher numbered principles could be subsumed under the lower principles, and she could still get the conclusions she wants by appealing to instrumental value of some of the entities for other entities that have moral status. For those things, like species and ecosystems, I do not think she needs to have them within the realm of entities that have moral status. Finally I show that her final condition leads her to a rather counterintuitive situation where contradiction might follow. I also show that she has abandoned her original project of defining moral status and decided instead to give a moral theory. Then I shall move on to what I take to be the most effective understanding of moral status.

**Warren’s Project**

Warren began her book trying to provide a complete analysis of what it is for something to have moral status, and at the start, she is mostly concerned with full moral status. What she provides in her seven conditions is more a moral theory rather than an analysis of moral status. Toward the end of her book she has abandoned her project and decided to present a definition that is more *ad hoc* than it is necessary and sufficient conditions for the concept of moral status. Let us keep in mind the following
definitions that I claimed she was looking for initially are: (i) \( X \rightarrow \text{Full Moral Status}; \)
(ii) \( \text{Full Moral Status} \rightarrow X; \) (iii) \( X \rightarrow \text{Some Moral Status}; \) and (iv) \( \text{Some Moral Status} \rightarrow X \)

I shall show that the only thing she has giving us an answer to is: (i) and (iii), the sufficient conditions, but these are easy conditions to provide. What we want is an answer to (ii) and (iv). It might even be the case that we have an answer to (ii), I claim ‘life’ is just such an answer, but not (iv) and this is why she is going to all the trouble to give us this moral theory instead of the rest of the analysis. She does this because she has particular moral conclusions that she wants to reach, and a theory that is too bare boned might cause some of her cherished moral conclusion left unjustified. Let us begin looking at her principles.

“(1) The Respect for Life Principle. Living organisms are not to be killed or otherwise harmed (damaged or destroyed), without good reasons that do not violate principles (2)-(7) (other sound moral principles).”\(^{307}\) This is Warren’s number one principle. It is a statement that life is fundamental, and that taking a life can only be done if there is some good reason. Living is a value for the variable in condition (2). She thinks that (1) is easier to apply than some other moral principles and this is why it is better than some others as the fundamental moral principle. By respecting life, one can avoid doing harm to something that has moral status, but is one of the cases that is unclear to normal humans. Clearly this principle is derived from the influence of Schweitzer to which Warren is rather sympathetic. But this principle does not tell us when and why one could harm some other living thing, and thus we need more principles.

“(2) The Anti-Cruelty Principle. Sentient beings are not to be killed or subjected to pain or suffering, unless there is no other feasible way of furthering goals that are: (i) consistent with (3)-(7) (other sound moral principles); and (ii) important (vital) to human beings, or to other entities that have a stronger moral status than could be based

upon sentience alone. (The more highly sentient and mentally sophisticated a being is, the stronger the obligation to avoid harming it.)”  

Clearly Warren does not think that all animals are equal in their attainment of moral status. She writes, “But because we are only human beings, we cannot accord full moral status to all sentient beings.” This is very interesting claim to make, and it engenders the following question: “Why is it that we cannot accord full moral status to all sentient beings?” If her claim is true that we cannot harm sentient beings, then we have an obligation to do so no matter how difficult achieving that goal is. Moral obligations do not wax and wane based on the degree of difficulty. That is, unless it is not possible to do something, then one is not required to do so. Now it could be the case that we will live in an immoral society no matter what we do, but the degree of the immorality is something that we can control on a very broad scale. Her claim just seems a copout on the sentience requirement that she wanted to adopt in the guise of a “Sentience Plus” view.

There is a second issue that is in need of pointing out at this point. Warren is using pain and pleasure as her relevant moral status properties. The question is, “why is it that pain and pleasure are the properties she uses as justification for not harming birds and other warm-blooded mammals?” Could there be some other property or value that one accepts as more important that pleasure and pain? Aristotle thinks that there is, and Warren does not argue for this principle or its placement in her moral theory, but just accepts it as given.

“(3) The Agent’s Rights Principle. Moral agents have full and equal basic moral rights, including the rights to life and liberty.” One of the main problems with asserting that agents have full and equal basic moral rights is that she does not explain what or how one is related to their alleged rights. Are rights relational properties that one has in virtue of being a human being? Clearly this cannot be the reason that one has

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rights according to Warren, since she thinks that moral agents have these rights, and the set of entities that are moral agents is greater than the set of human beings, but of course Warren is aware of this worry when she begins her analysis of language use, moral agents, and apes.

Another problem is that she does not give any indication as to whether or not rights are coextensive with moral status. She agrees that, “moral rights are not absolute,” but the issue of moral status seems to be something that is absolute. Can one lose moral status in the way that one can have a right abridged? These are very difficult issues that Warren has not considered, and for the “agent’s rights principle” to be a relevant criterion for explaining or defining moral status, she needs to come to grips with how the two, rights and moral status, are related, which she does not.

In her defense of the agent’s rights principle, Warren presents a pragmatic argument for moral rights. Her pragmatic defense, however, does not relate to a definitional issue of moral status in the least. It seems that a pragmatic defense is one that is contingent on some further goal that may or may not be commensurate with trying to define moral status, and in a way to try to deal with this issues Warren claims that (3) is a moral floor and not a moral ceiling. It seems that what Warren is trying to get is a good society. Her pragmatic arguments about rational choice and the attainment of good citizens that would act this way behind Rawls’ “veil of ignorance” do not provide justification for (3) to be part of a definition of moral status. Plus, I am not convinced that if everyone acted morally, that we would have a good society. This is a clear example of the fallacy of composition. Nevertheless, there is something plausible about the agent’s rights principle when it comes to analyzing moral theories, but not when it comes to presenting a definition of moral status. Why is she worried about these social relationships when the goal of her book is the defining of moral status? The only simple answer is that Warren has either lost focus of her project or she

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312 One could think of a moral floor as a necessary condition, but the agent’s rights principle does not seem to be a necessary condition for full or partial moral status.
has changed to focus to the presentation of a moral theory. I think, perhaps, that it is a little bit of both at this point.

“(4) The Human Rights Principle. Within the limits of their own capacities and of principle (3), human beings who are capable of sentience but not of moral agency have the same basic moral rights as do moral agents.”

Here is a principle that I even though I think is true, I do not think needs to be articulated in a definition of moral status, and I will explain why below. Essentially Warren has this principle in her list of seven in order to deal with objections to moral agency not being a necessary condition for full moral status.

There are instances where an individual or child could have a certain level of sentience that one thinks is sufficient for full moral status, but is not or cannot be a moral agent because of conceptual immaturity or isolation from other entities that have moral status. This is clear when we see what Warren has to say about the way individuals become moral agents: “The inadequacy of the view that only moral agents have full moral status becomes apparent once we consider how human beings become moral agents.”

Children that are in the process of learning moral concepts, but cannot use them correctly are not moral agents, but they do have full moral status, or at least this is the intuition that Warren has, and I agree with her, but for different reasons. I claim that one can set sentience as a sufficient condition for full moral status and leave it at that, and these cases of infants at the edge of learning moral concepts will be protected.

Warren then goes on to ask the following question: “why include the mentally disabled as entities that have full moral status?” She admits it seems that cases of the mentally disabled having full moral status is less cogent than that of children and infants as having full moral status. This seems to be an indication that she is going to present reasons why the disabled do have full moral status, but then she writes: “Empathy for

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disabled members of the human community, and for those who care for and about them, requires that they be accorded full moral status.”

She does not argue that they do, in fact, have moral status, but instead she wants to grant them full moral status by fiat. To do this, however, is to pass the moral buck and evade the ethical decisions that come with such a tough case of a disabled person. Given Warren’s attempt to deal with the disabled in this manner, she has de facto provided the answers to other such issues as euthanasia and sterilization of the disabled. In her zeal to protect the disabled, she has built into her principle a condition that has nothing to do with her primary goal of defining moral status. Moreover, this is just more evidence that Warren is, at this point at least, more concerned with deriving particular moral conclusions than she is with defining moral status. Let us leave this criterion and move on to the rest of her criteria.

“(5) The Ecological Principle. Living things that are not moral agents but that are important to the ecosystems of which they are part, have, within the limits of principles (1)-(4), a stronger moral status than could be based upon their intrinsic properties alone; ecologically important entities that are not themselves alive, such as species and habitats, may also legitimately be accorded a stronger moral status than their intrinsic properties would indicate.”

There are many considerations one has to make toward the ecosystem, but to grant it moral status of a degree higher than its intrinsic properties alone does not seem to be something that is necessary for the analysis of moral status. This principle seems to be a prudential principle for entities that have full moral status, are affected by their environment, healthy and safe. If it were the case that entities with full moral status did not need a particular ecosystem, would it then be acceptable to not grant that ecosystem higher moral status than its intrinsic properties alone would grant?

There are really two issues at work in this principle. The first is the protection of species and other ecologically important entities like habitat. How habitats differ

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from being anything other than a local ecosystem is an open question, and thus her call to protect habitat in order to protect the ecosystem seems at best a situation where one has to protect the parts to protect the whole and at worst is an instance of circular reasoning. But more importantly there is the issue of protecting species. If species have more moral status than they would have had given their particular intrinsic properties, then it seems that we have a strange requirement to species. My intuition is that we do not have moral obligations to any particular species, but we may have obligations to members of species. If we had more of an obligation, because of the more moral status they have, than would have been granted by the intrinsic properties alone and the species would be good for the ecosystem, then we would have an obligation to try to recreate particular species that have gone extinct. That is, given that they the species in question is important to the ecosystem.

The second issue is that there could be living, non-moral agent organisms that are important to the ecosystem, but do we really have an obligation to them because they are important to the ecosystem? My intuition is that one does not have an obligation to them especially if one wants to develop or change the particular habitat or environment. This is not to claim that there are some habitats that it is prudent to maintain, like the Florida Everglades, but the Everglades are a different situation morally speaking.

Ultimately, this principle seems to be nothing more than a self serving tool to keep things that do have moral status alive and well. If it were the case that humans did not need the biosphere, habitats, or certain ecosystems, would we consider them as having full moral status? I do not think we would. So it is the case that these non-living things have moral status because it keeps moral agents alive or because there is some “relationship” we have with them that is important, or is there no real reason other than an instrumental reason to keep the biosphere and smaller parts of it safe? Saving nature does not appear to be a moral evaluation unless there is some dramatic effect it will have on something that does have full moral status, but this again is a prudential concern.
“(6) The Interspecific Principle. Within the limits of principles (1)-(5), non-human members of mixed social communities have a stronger moral status than could be based upon their intrinsic properties alone.”\textsuperscript{317} In evoking this principle, Warren is trying to come to grips with our common moral beliefs that our pets have some moral status. In fact, our pets have more moral status than their intrinsic properties would allow them to have in the first place.

The worry that I have with this principle is that there is no guiding method to determine which pets or members of the mixed community have more moral status than others. Clearly, cute kittens, puppies, and bunnies are going to get preferential treatment over fish, birds, and reptiles. It seem that Warren has succumbed to Hume’s claim that “reason is a slave to the passions.” I find no compelling reason to accept that these members of the social community have more moral status because they are members.

What I do find compelling is the explanation that we have certain relationships with animals that are more similar to us in terms of sentience. So, our dogs and cats have a higher degree of sentience and similarity to us by being mammals than the birds, reptiles, and fish that we throw away, bury, or flush when they die. Given this psychological explanation of why we behave the way we do toward certain animals in our mixed social group is not a reason to give them more moral status. It is just a contingent fact that we do what we do with certain animals, and it is capricious to make the argument that because we do this they have a certain moral status.

“(7) The Transitivity of Respect Principle. Within the limits of principles (1)-(6), and to the extent that is feasible and morally permissible, moral agents should respect one another’s attributions of moral status (stronger moral status to certain entities than could be based upon their intrinsic properties.)”\textsuperscript{318} This principle would make it the case there whenever there is a group that grants moral status to something, that others have to grant it as well given the constraints of the other principles. But since the other


principles are wide in their application, it would make sense that there is a large group of entities that could be granted moral status, and others in the society would have to accept this fact.

Warren notices that this is a consequence of her principle and writes the following: “This principle does not require us to accept other people’s attributions of moral status—at least, not without good reasons.” Clearly what counts as good reasons is where the moral buck stops here. The problem is that given the rest of her theory, we should know what good reasons are or are not. Warren then goes on to give the following restrictive claim about accepting other claims of moral status: “Respect for the ethical or religious beliefs of other people need not mean adopting those beliefs, or even regarding them as reasonable.”

Now it seems that there is a little bit of a puzzle or contradiction going on here. If we do not have to accept other’s attribution of moral status without good reason, and religious beliefs of others do not have to count as reasonable, then those beliefs do not need to be accepted. But what other beliefs would one give for the attribution of moral status other than some religious belief?

In the final analysis, it looks as though many of the relational properties that Warren wants to get into the moral status definition fail to be relevant to the debate. She is far more concerned with getting particular moral conclusions to follow from her theory than she is with getting at the actual definition of moral status. If she had decided to change her project to present a moral theory that relies on moral status and some relational properties, then she would have done a fairly good job doing so, but this was not her goal. Her chief goal was to provide an analysis of moral status, and the addition of the relational principles is otiose for this task.

Moreover, if one were going to try to apply Warren’s seven conditions to either research or reproductive cloning, one would find it difficult to determine how to proceed. Thankfully Warren provides a similar model for applying her conditions to

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abortion, and since I claim that much of the cloning debate is the same debate as the abortion debate, we can take this model and see if there is some way to proceed.

Essentially, when Warren is dealing with the abortion debate, she takes it that her principles provide justification for the very liberal view on abortion, in large part because fetuses are neither sentient nor moral agents. But there are other considerations can and do come into play in her analysis of abortion. I will not go into it here, but she thinks that some of her other principles as well as reproductive rights will have to play a role in the analysis of abortion, and I would think the same holds true of human reproductive cloning as well.

**Pynes’s Moral Status Definition**

Now that we have seen Warren’s attempt to create a multi-criterial account of moral status that will account for all the moral conclusion for which she wants to arrive, I propose to present a simpler, public policy friendly set of conditions for full moral status. My three conditions for a public policy friendly analysis of moral status consist of one necessary and two sufficient conditions for moral status, they are: life, moral agency, and sentience. Now these conditions are not exhaustive in their ability to deal with every moral intuition that one has, but I shall claim that they are enough to make good public policy with respect to human cloning and other biomedical issues like stem cell research, abortion, and euthanasia. But since I am most concerned with cloning, I shall couch my discussion in terms of both research and reproductive cloning and argue for defending both practices.

**The “Life” Condition**

After contemplating many possible necessary conditions for full moral status, only one stands out: life. Now this may seem to be a rather simplistic necessary condition, and in fact, some may even claim that it is not a necessary condition at all.\(^\text{321}\)

\[^{321}\text{Or at least it will be sensitive to how one defines life. For what I am going to claim about the life condition, one could grant the widest possible definition of what it is to be alive: everything from viruses to Star Trek’s android character Data will satisfy my necessary condition for full moral status of life.}\]
One could argue that there are some non-living entities that have full moral status, but I will claim that no matter what the non-living entity in question is, from ancestral bones to moon rocks, the item does not have the same moral status as a living human being that we would grant full moral status. That is, if we had the standard ethical dilemma of the trolley problem, modified slightly, where the trolley is going to kill the one person if we do not switch the track to where the non-living entity is, then I would claim that it would never be morally permissible to not switch the track in order to “save” the bones or moon rock. One can pick their favorite non-living example and I will make the same claim, and if I am right in this claim and normal adult humans have full moral status, then life is a necessary condition. Upon reflection it seem that there are no non-living entities that have more moral status than a particular entity that has moral status, and that includes Warren’s beloved species and ecosystems.

The problem with this sole necessary condition is that it does not provide us with much guidance with respect to determining what things have full moral status and those that do not. There are many living entities that we would clearly not grant full moral status, plants for example, and so this leads me to have to move on to the sufficient conditions for full moral status.

The “Moral Agency” Condition

Being a moral agent is a sufficient condition for having full moral status. Again this is not a surprising claim to make, and in fact, it might not even be that informative in terms of epistemological conditions. That is, it might be difficult to determine if something is a moral agent or not. There are many times when some entity appears to be performing moral behavior, but is not. Setting the epistemic worries aside, I take it that being a moral agent is a sufficient condition for having full moral status, but it is not a necessary condition.\textsuperscript{322}

\textsuperscript{322} If being a moral agent were a necessary condition for full moral status, like Kant thinks, then everything that had full moral status would have to be a moral agent. Young children and individuals that are in a coma or asleep would be clear counter examples to the principle. Thus, I argue that it is just a sufficient condition, and a fairly convincing one at that. That is, there are no moral agents that do not have full moral status. This claim does, however, have implications for certain kinds of punishment like...
This condition is fairly uncontroversial, but there are a few things to consider. First, there are those conceptual situations where some entity, like a computer or robot, acts or has behavior that is rightly called moral behavior, and thus the computer or robot is a moral agent in a very wide sense. This could be seen as a potential objection to the moral agency condition, and there are at least two things to make of this as a potential worry. One could say that the “agency” part of moral agent presupposes that the computer or robot has free will. Leaving behind the traditional problems of free will for normal humans, it seems that there are clear cases where computers that only behave in terms of a program, and thus are not able to do other than their program. If this is the case, then the behavior in question is not moral. The same would go for the robot or Star Trek’s famous character Data. If the computer or robot could not have done otherwise, then it is not agency in the right sense and thus the behavior cannot be moral behavior.\textsuperscript{323} The second reply to the computer or robot issue is that computers and robots fail to satisfy the sole necessary condition of life. And all one has to remember is the definition of life provide by Paul Churchland when he said that life is essentially “semi-closed local entropic minimum dissipative system”\textsuperscript{324} as presented in the section above on “defining life.”

The second issue up for consideration here relates to Warren’s concern for relations properties, and how certain kind of relation properties are relevant to an analysis of moral status, but full and partial. It is at this point that I want to show that the concept of moral agency is all the relational properties that one needs to get a usable definition of moral status, at least for public policy issues. We need to keep in mind that my goal for defining moral status far less encompassing. That is, I am not claming, the death penalty. If inmates are moral agents and thus have full moral status, and it is impermissible to kill something with full moral status, then the death penalty is morally wrong.\textsuperscript{323} There is an interesting similarity with a computer program and my denial of its actions as moral actions and Kant’s claim that if an action is done from habit or training alone, then it is not moral behavior. This seems to be the exact kind of reasoning that is going on here. But even though it sounds strange in the Kantian case for seemingly good behavior to not be good because it is done from habit instead from a good will in accordance with duty, it does make sense to make the claim about computer behavior as not being moral because it is not done in accordance with the moral law.\textsuperscript{324}

like Warren, to be providing a full analysis of the concept of moral status. All I want to provide is enough of a definition to get public policy issues settled, and since public policy is concerned with behavior or moral agents with other moral agents, my concept is enough to get the cloning debate through the relevant policy analysis.

Moral agency is a relational property. That is, for one to be a moral agent, someone has to be a moral patient; and one cannot act immorally to something that does not have moral status. Thus moral agency is at least a two place relational property with the following logical form: $MA_{xy}$, and can be read in any of the following ways: $x$ is a moral agent to $y$ or $x$ acts morally towards $y$. So if Warren really thinks that there have to be relational properties involved in the defining of moral status, then all one needs to appeal to is moral agency.

The “Sentience” Condition

The last and most difficult condition to determine epistemologically is the sentience condition. Earlier we saw that some wanted to argue for sentience as both a necessary and sufficient condition, but this is clearly too strong a claim. Warren writes that sentience is “a sufficient condition for having full and equal moral status.” I will grant that a particular degree of sentience is a sufficient condition for full moral status, but what that degree is, is too difficult to quantify here. But this difficulty should not pose a theoretical obstacle for us to understand its sufficiency as a criterion for moral status.

So, let us briefly look at a few different claims about sentience and come to a few conclusion about it relation to moral status. In Warren’s claim, there is a plausible moral principle: entities with equal sentience have equal moral status. This seems right. If there are two living entities that have the same degree of sentience, then they have the same degree of moral status, whether full moral status or some lesser degree of moral status. Now this leads us to two kinds of cases to deal with when it comes to moral assessment.

The first issue is that of situations where two things have the same amount of sentience, but we may not treat them the same. Assume that a full-grown Boarder Collie has the same degree or slightly higher of sentience as that of a one-year-old child. If this is the case and Warren is right about degrees of moral status being equal with equal degrees of sentience, then there could be an instance where a dilemma between a adult dog and a child could cause one to choose saving a dog over the life of a child in cases where both are trapped in a burning building. Clearly this is not the kind of decision that firefighters would make, but the conception point is made. In fact, if the firefighter came out with the dog and said, “I could only save one, the dog or the infant, and I saved the dog” people would think the firefighter morally bankrupt. So one could in this case reject the same sentience same moral status claim or one could claim that infants have some other property that makes them have more moral status than the adult dog. It seems that the latter is the better way to go in this case, but if there were no other properties for which one could appeal to, then there would be a problem. 326

The second kind of case is where two entities have reached the level of sentience required for full moral status, but one is more sentient than the other. If there are cases like this were the level for achieving moral status is low enough that lots of things can achieve it, but there are clearly cases of entities that have far more sentience than the minimal to grant full moral status. If there is a situation where only one can be saved and they both have full moral status, if all else is equal, it seems that this condition would require that the one with more sentience should be saved. And this claim is buttressed by the intuitive claim that more sentience means more moral status, which is derived from the claim that the same sentience requires the same sentience claim. One way to deal with this issue is to claim that full moral status mean just that, full; and if the dilemma is between two entities that have full moral status, then there

326 Some would want to make a move to the potentiality of the infant as a moral agent and entity that will have more sentience than the dog, but I have barred that move for myself since I argued above that potentiality does not matter. In this case, however, there could be good reasons to choose the infant over the dog. One such reason is that the firefighter has agreed to save humans over dogs in cases where only one can be saved.
cannot be a wrong decision morally if no other conditions are morally relevant to the choice.

The Three Conditions and Public Policy

If good public policy is a desire to protect those that cannot protect themselves and to make law that does not allow for the harming of individuals that have both full and partial moral status, then the conditions I have presented are sufficient as guidelines for the production of good public policy on this matter. I do not have a full fledged model for public policy, and it would be too much for this work to contain such a model, but from what I have presented in these three conditions is a moral floor for which we cannot fall when it comes to experimentation.

Moral agents and sentient beings have a certain level of moral status that requires that they be treated in a certain manner. The question is clear: “how will this kind of understanding of moral status help us determine good public policy with respect to human reproductive cloning, research cloning, stem cell research, and the abortion debate?” Let us move on to my defenses of research cloning and reproductive cloning to see how this will work.

Defending Research Cloning. There are several kinds of research cloning with which one could be working. One could be doing work on bacteria or plants or even humans cells. The question is: “is there something morally impermissible with research cloning with respect to moral status?” The reason that I ask this question in this way now is that, if I am correct in claiming that much of the cloning debate revolves around the hidden assumptions of moral theorist’s views on moral status, then the right way to try to provide a defense of research cloning is going to be through the concept of moral status. That is, does the practice violate something that has full moral status?

Clearly no one has much of an issue with the cloning of plants and bacteria. The real worry is with human biological tissues that could be used to clone a human or reproduce extra stem cell lines for research. So given my analysis of moral status as all that is required for good public policy, then we can see that a defense of research cloning falls out straight away. It is only where there is a special assumption that a
fertilized egg has full moral status at conception, that there is a problem with the cloning of stem cells.

Thus, as long as we grant that a fertilized egg that is allowed to mature to the four-week stage is neither a moral agent nor a sentient being, not sentient enough to grant full moral status at least, then we can see that there is no good reason to place a complete ban on research that uses fetal tissues. There is no moral agent to which some harm could befall, and there certainly is not sentient individual whose rights have been violated. So there are no good reasons to ban research cloning on human tissues, especially in the form of stem cell lines from aborted fetuses, left over fetuses from IVF procedures, or chord blood.327

There are several replies that one could make about the policy parameters that I have suggested here. First, one could claim that fetal research is fine, but that it should not be funded by tax dollars. My worry is that the only reason that one would object to the use of tax dollars for any kind of scientific research that does not violate the moral status conditions of this kind stems from the religious convictions of the people making the laws. And if there is a ban on releasing tax dollars for certain kinds of research because of religious convictions, then this is in essence a violation of the generally accepted “Establishment Clause” of the First Amendment.

**Defending Reproductive Human Cloning.** My defense of reproductive human cloning follows similar lines as my defense of research cloning. If there is no violation of the rights or if there is nothing that has moral status to be harmed in the case of reproductive human cloning, then there is nothing that seems to be the problem with the action. This liberal view on reproductive human cloning follows from how I have defined moral status. There are clearly other ways to try to defend human reproductive cloning: as a reproductive right. But what I have tried to do in this section is to remain neutral with how one couches the debate in reproductive terms. If this is the case, then what one needs to determine is whether or not there is some harm or if some individual’s moral status is being violated in the process of human cloning.

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327 One could claim that there is a difference between good public policy and a public ban that is wanted by its citizenry.
Given that eggs, sperm, and early embryos satisfy only the necessary condition for full moral status and neither of the sufficient conditions for full moral status, there is no objection to human cloning that can be applied on that front. This conjoined with clear refutation of the other objections to reproductive cloning make the action something that is morally permissible. There will, however, be concerns that govern the rights to certain sequences of DNA, but these are property rights issues and not issues that are at the heart of the reproductive human cloning debate. So as far as I can tell, there is noting about the act of human cloning that violates either the clone’s right or the rights of the individuals that want to clone themselves. If this is right, then a complete ban on human reproductive cloning is inappropriate at this time.

**Moral Status Conclusion**

In concluding this chapter, it is safe to say that there is nothing special in the cloning debate that we have not already seen before in the abortion, *in vitro* fertilization, and euthanasia debate and will continue to see in other biomedical debates like stem cell research. There are many problems that we have seen in trying to define what moral status is, from purely intrinsic properties to special relational properties. When the definition of moral status gets too complicated, it becomes difficult to determine to what things one has a moral obligation. When this occurs, there is a genuine problem of determining what actions are moral or not. I am not advocating a simpler theory so that we can get conclusions, but I have shown that we can get the conclusions we need with a simpler definition of moral status.

When it comes to most ethical debates, there are always going to be issues that give rise to objections. Human cloning seems to be a challenge to our very way of life in terms of reproduction as well as how we see and understand personal identity. I do not think, however, that these new understanding are the kind of worries that should make the actions of research cloning and reproductive human cloning impermissible.

I take it that Warren’s conditions for moral status are too wide, and a simpler definition needs to be accepted. Instead of working on refining the relational properties that we have that might grant some entities some moral status, I suggest that work be
done on refining the notion of moral agency and sentience, for it is the questions of
sentience that will really determine if some individual has full moral status or not. It is
one thing to just grant individuals full moral status as Warren likes to do, but if we
really want to determine if some action is morally permissible, then we need to be able
to do more than just grant that some individual has the moral status that makes some
action done to it impermissible.
CONCLUSION

Focusing The Cloning Debate And Future Public Policy

Cloning whether human or animal, whether for research or for reproduction, there are many factors that influence our moral assessment of the behavior in question. I have presented many of the dominant ethical theories, both secular and religious, and shown where they come apart. In the final analysis it seems that the crucial question about cloning is really a question about the moral status of individuals. This is to say that until there is widespread consensus as to when and how some individual gets full moral status (or even partial moral status for protection against some harm to very young humans) bioethical debates will remain stalemated.

What one needs to remember is that technology is not going to get worse or disappear, and the biological advancements are going to become greater and occur more often. In an attempt to provide at least a working definition for moral status for the public policy analysis, I have given a model for dealing with the tough cases.

Along the way, I have argued that traditional argument for potentiality do not matter, that the religious argument are not cogent, and that the real moral debate is not on the level of cloning, abortion, or stem cells, but is really one level down at the concept of moral status. How one views the cloning debate will in large part determine how one categorizes the case morally. If one thinks that cloning is really an issue about reproductive rights, then the most likely outcome seems to be similar to other reproductive rights, that cloning has to be such a reproductive right. The trend toward more rights in the area of reproduction seems to be the way of the future, and thus not something that people will want to give up even in the face of religious dogma. If one thinks that cloning is a sin against God and nature, then one will come to the conclusion that cloning is morally impermissible. The problem with this view is that there are few
cogent argument to the conclusion that cloning is either a sin of any kind, and thus difficult to consider impermissible.

If we are to have good public policy that allows for freedom of research and reproductive rights that do not violate the rights of others that have rights, then the debate needs to be focused not on the individual problems like cloning or abortion, but on the questions about what we have moral obligations to. These issues can vary widely from one’s immediate environment to the impact of other countries to a single fertilized egg. Whatever method one chooses to evaluate the cloning debate, these are fundamental issues for which one will have to deal.

In the end, I take it that reproductive cloning is best seen as a reproductive rights issue. Seen in this light there are few compelling arguments with conclusions that state process of cloning is morally impermissible. Research cloning is also an action that I find morally permissible, given the constraints on what I have argued constitutes full moral status. Since the view of moral status that I have defended does not ascribe full or partial moral status to embryos that are not moral agents or have a particular degree of sentience, I do not find experimentation on these embryos as something that is morally impermissible. There will be room for discussion about when an embryo is old enough to not be experimented upon, but for now, early embryos do not have the required properties for ascription of full moral status. Thus, my view of both research cloning and reproductive cloning is that they are morally permissible activities; and if one wants to pursue these as either a means of reproduction or as a research project, then it is something that is morally permissible.

If there is a genuine desire by the participants of the human cloning debate that they want to have good public policy, and there are reasons to doubt this claim, then particular issues such as abortion, stem cell research, and human cloning are not what should be discussed in the public realm. The point for which we can fulcrum these debates is the concept of moral status. I suggest that this is the topic that needs to be researched further.
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BIOGRAPHICAL SKETCH

Born: 17 January 1970 in Atlanta, GA.

Education
Ph.D., Philosophy, The Florida State University, Tallahassee, FL, 2003
M.A., Philosophy, San Diego State University, San Diego, CA, 1998
B.A., Philosophy, University of California, Santa Barbara, Santa Barbara, CA, 1996

Areas of Specialization
Ethics
Biomedical Ethics
Metaethics
Logic

Areas of Competence
Philosophy of Language, Frege
Philosophy of Science
Epistemology
Philosophy of Law

Publications

Book

Articles
Book Review


Professional Experience

Lecturer, Department of Philosophy, The University of Tennessee Fall 2003 to present
- Formal Logic
- Business Ethics
- Biomedical Ethics

Undergraduate Advisor, Department of Philosophy, The Florida State University Summer 2002 to Summer 2003

Instructor, Department of Philosophy, The Florida State University Summer 2000 to Summer 2003
- Reasoning and Critical Thinking
- Introduction to Philosophy
- Ethical Issues and Life Choices
- Biomedical Ethics
- Philosophy of Science

Research Assistant for Michael Ruse, Lucyle T. Werkmeister Fall 2000 to Fall 2002
Professor of Philosophy

Instructor, Princeton Review May 1998 to June 2003
- Law School Admissions Test

Teaching Assistant, Department of Philosophy, The Florida State University Fall 1998 to Spring 2000

Teaching Assistant, Department of Philosophy, San Diego State University Dec. 1997 to June 1998

Paper Presentations

“Kant’s Second Proposition to the Categorical Imperative”
“Validity, Schema, and a *Modus Tollens* Paradox”
  - Southwestern Philosophical Society, 63rd Annual Meeting, Dallas, TX, November 2001.

“Supervenience in Epistemology”

“On the Brink of an Answer: Why Antirealism Isn’t Defeated”
  - FSU Student Philosophical Association Graduate Student Colloquium Series, Tallahassee, FL, November 1999.

“The ‘Scope’ of Dennett’s Intuitions About Qualia”

“Frege, Fiction, and Reference”

**Award**

The Florida State University Outstanding Teaching Assistant Award April 2001
Nominated for this one time award again in 2003.

**Professional Development**

♦ Fellow, Preparing Future Faculty Program Fall 1999 to Spring 2000
♦ Certificate, The Speaker Series, Center for Professional Development FSU Program for Instructional Excellence Fall 1999 to Spring 2000
♦ Participant, The Florida State University Teaching Conference, Fall 1998
FSU Program for Instructional Excellence
Service

Member, FSU Campus Development and Space Committee  
Spring 2001 to Fall 2002

Vice President, FSU Student Philosophical Association  
Spring 2000 to Spring 2001

Member, Philosophy Department Student Peer Review Program  
Spring 1999 to Fall 2001

Founder and Director, FSU SPA Grad. Student Colloquium Series  
Fall 1999 to Spring 2001

Member, Student Advisory Committee College of Arts and Sciences  
Fall 1998 to Spring 2001

Vice President, San Diego State University Philosophy Club  
Fall 1997 to Spring 1998

Professional Memberships

Florida Philosophical Association  
Fall 1998 to present

American Philosophical Association  
Fall 1999 to present

International Society for the History, Philosophy, and Social Studies of Biology  
Spring 2001 to present

Southwestern Philosophical Society  
Summer 2001 to present

Graduate Coursework

Evolutionary Ethics (Troxell)  
Philosophy of Biology (Ruse)

Tutorial In Ethics (Rickless)  
Modern Logic I (Jung)

Kant’s Ethics (Rickless)  
Modern Logic II (Jung)*

Subjective Ethics (Dalton)  
Aristotle’s *Metaphysics* (Wheeler)

Ethics: Expressivism (Gert)*  
Plato’s Theory of Forms (Dancy)

Philosophy of Mind: Consciousness (Francescotti)  
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* Audited

**References**

Professor Michael Ruse
Lucyle T. Werkmeister Professor of Philosophy
The Florida State University
Department of Philosophy
151 Dodd Hall
Tallahassee, FL 32306-1500
850.644.1483
mruse@mailer.fsu.edu

Professor Russ Dancy
Chair, Department of Philosophy
The Florida State University
Department of Philosophy
151 Dodd Hall
Tallahassee, FL 32306-1500
850.644.0226
rmdancy@mailer.fsu.edu

Professor Donald Hodges
The Florida State University
Department of Philosophy
151 Dodd Hall
Tallahassee, FL 32306-1500
850.644.4127
dhodges@mailer.fsu.edu

Professor Peter Dalton
The Florida State University
Department of Philosophy
151 Dodd Hall
Tallahassee, FL 32306-1500
850.644.0229
pdalton@mailer.fsu.edu