

The Humanity of the Infant

For most people, to believe that we are equal in a moral sense is to believe that there is a respect in which we are equal that is more fundamental to what we are than are the respects in which we are unequal, and to believe this is to believe in a common nature underlying our differences, a nature more fundamental to what we are than are the respects in which we differ.

To give my pursuit of goals a higher place in my evaluations is the same as giving myself a higher place as a pursuer of goals. The reason the relative positioning does not stop at our desires is that we are aware of the desires as emanating from and belonging to Horowitz and myself. The recipients of the unequal evaluations are the concrete entities that are the agents and subjects of the conflicting interests. And to be a pursuer of goals here means to be a maker of decisions based on rational knowledge, for the pursuit in question is the pursuit of goals chosen by acts of the rational appetite. In evaluating myself to be higher as a pursuer of goals, I am evaluating myself to be higher as a producer of rational decisions.

In a moment, I will discuss what "rational knowledge" means in this context. But first, what does evaluating another person to be unequal as a maker of acts of will have to do with inequality with respect to human nature? To be aware of myself as a producer of decisions is to be aware of myself as a being whose makeup includes features sufficient to enable me to produce decisions. And to be

aware that another is equal to me as a pursuer of goals is to be aware that her makeup includes features sufficient to enable her to produce evaluations based on rational knowledge of what things are. The evidence that she is equal to me in this respect is the evidence that she too can consciously aim at making something exist as she has rationally conceived it to exist, that her conception of future goals can be based on her rational knowledge of what things are that already exist, and that her satisfaction in an accomplished goal can derive from rational awareness of what exists when that goal exists.

The features enabling me to cause decisions include proximate dispositions, for example, my state of readiness to make decisions when I am awake. They also include more remote dispositions, for example, the dispositions for making later decisions that I possess when asleep, drugged, or in a coma. But it is not the dispositions that cause decisions; it is I who cause decisions by means of whatever features of my being constitute my dispositions for making decisions. To be aware of myself as a cause is to be aware of myself as a concrete existent. Only concrete existents, not their features considered in abstraction, can be causes.

Therefore, in evaluating myself to be higher than another person as a producer of decisions, I am evaluating myself to be higher as a concrete entity whose features enable him to be the cause of decisions, and I cannot avoid evaluating myself as higher with respect to what makes me a cause of decisions. When I put my

interest ahead of hers, the reason my comparative evaluation does not stop at the interests in abstraction from the entities whose interests are in conflict is that I am aware of our desires as achievements, effects, of dispositions belonging to us. But both the proximate and remote dispositions by which I cause decisions are themselves actualizations of more fundamental dispositions. If the fact that our desires are actualizations of dispositions requires evaluations made by rational beings not to stop at the desires themselves, that same fact requires that those evaluations not stop at the more proximate dispositions but extend to the more fundamental dispositions.

Indeed, for a being who evaluates things according to knowledge of what things are, the more fundamental dispositions must be the more fundamental features in respect to which the things are evaluated; otherwise, the evaluations would be defective by the standard of failing to evaluate according to our knowledge of what things are, the intrinsic finality of the will. For I am made a cause of decisions principally, as opposed to instrumentally, by the more fundamental dispositions through which I produce and maintain the existence of the more proximate dispositions for decision; and the more proximate dispositions are related to the more fundamental as what exists secondarily and derivatively to what exists primarily and foundationally. In particular, I have my proximate ability to make decisions because the organism that existed when I was a child developed that ability

by means of causal dispositions it then possessed, and it maintains that ability in existence by means of more fundamental causal dispositions it now possesses.

A child is an agent who will produce, in the course of her development, the dispositions enabling choice, just as a novice athlete is an agent who will produce, in the course of her training, the dispositions for feats she is now incapable of. And just as the agent who now produces admirable athletic feats is the same agent who undertook training some time ago, the person who now makes ethical decisions is the same agent who began developing the proximate ability to make decisions long before she had that ability. Contrast the existence of the sperm and ovum that will become the child to the existence of the child. When the sperm and ovum exist separately, there does not yet exist an agent whose causal dispositions will enable it to produce the proximate dispositions for choice; when the child exists, there does exist such an agent. Therefore, when the child begins producing choices, the agent producing them is the same agent that existed before. And it is this agent that we evaluate as equal or unequal to another person. Nature is a causal concept and a temporal causal concept. A nature is a set of features that accounts for ongoing development and change. Do we value an infant because of what it is or because of what it can become? A false dilemma. We value what it is because what it is now has a relation to what it can become. What it is now is a set of dispositions by which it is

destined to become a mature human being, given the proper environmental support. The underlying dispositions that determine our other features constitute our nature. And whatever features constitute our mature ability make to decisions are themselves caused by means of the more fundamental features that belong to our nature.

Therefore, it is principally by means of the nature I already possessed as a child that I am a cause of decisions, somewhat as it is the artist rather than her tool that is principally the cause of a human fabrication. In order to make something, an artist may first have to make a tool. But the artist is more the cause of the final work than is the tool. The tool produces the effects it does only because it is both designed by and used by the artist to produce those effects. Likewise, in order to cause decisions, an organism must first produce whatever features proximately dispose it to cause decisions. Decisions are not ends in themselves; they are means to the kind of ends we are related to by the inclinations and faculties of our nature (see Chapter 5 and Section 6.2). In fact, the rational appetite is itself a means to ends, to achievements, relations to which are inscribed in the zygote; for evolution selected the human zygote because of its relation to achievements of that kind. Therefore, reason knows that the rational appetite and its decisions are related to the more fundamental dispositions of the rational decider the way tools are related to the artist; and an evaluation of humans as pursuers of

goals is defective as an act of a rational appetite if it does not evaluate us with respect what reason knows about the nature through which we principally become causes of rational decisions.

Another aspect of the features by which we make decisions leads to the same conclusion. Usually, the tools an artist makes in order to produce her final work exist independently of her, as brushes exist independently of the painter. However, the more proximate dispositions by which I make decisions exist in me derivatively and secondarily relative to the more fundamental features of which the proximate dispositions are achievements. The proximate dispositions exist only by residing in a being constituted what it is by more fundamental features, features by which the proximate dispositions are caused. And it would be defective for an appetite adapted to what exists as known by reason to value things according to what exists secondarily and derivatively more than what exists primarily and foundationally.

However, the features of our nature necessary for making decisions include many dispositions we share with nonhumans. Does it follow that I must give them a place equal to myself in my evaluations? No, the equality in question is equality as beings whose natures bestow on them, actually or potentially, the ability to pursue goals based on rational knowledge. The generic features we share with nonhumans are necessary but not sufficient for our having underlying dispositions that will produce the rational appetite, since rational appetite is specifically human. Hence, it

would be defective to evaluate what these other beings are equally to what I am as a being that can produce acts of a rational appetite.

(*On the other hand, is a nature sufficient to produce a rational appetite common to all humans? What about the severely retarded or human offspring without human brains? The phenomena of idiot savants and of Downs' Syndrome victims attending college make it rash, to say the least, to assume that the retarded lack the kind of knowledge required for a rational appetite. More generally, there are only two possibilities. Either the afflicted human's causes, her parents, did not pass on a rational nature to their offspring, or a nature sufficient to produce rational faculties is present, but, due the presence or absence of other causes whose cooperation or lack of interference is necessary, the rational nature cannot produce its normal effects. In the latter case, the afflicted human is equal in nature to us just as a zygote that has not yet produced its normal effects is equal in nature to us. And even if the former were the case, a decision to treat the afflicted human unequally would be defective unless we knew her causes had not passed a rational nature onto her, since we know that human parents normally do pass on a rational nature. Sufficient, though not necessary, evidence that her causes had given her a rational nature would be her ability to produce offspring with a rational nature. Other evidence could come from the kind of genetic repair that would correct the affliction.)

To return to the main point. The features primarily responsible for our being causes of decisions are features belonging to our underlying nature. Therefore, in denying her an equal opportunity to pursue goals, I cannot avoid evaluating us as if we were unequal with respect to our underlying nature. Since the finality of the rational appetite is (1) to evaluate concrete entities (2) according to what reason knows of them, my evaluation could abstract from the nature only if I did not know that the underlying nature made me the kind of entity that can make decisions. In making the decision, I am evaluating myself as a certain kind of agent. The fact that it is my nature that enables me to be such an agent by producing the proximate dispositions is something that could not be altered by a choice to act as if it was not. If I chose to kill someone who was unconscious on the grounds that she was not then equal to me with respect to the proximate ability to make decisions, my decision could not avoid evaluating her as if her nature were not equal to mine. I would still be evaluating one concrete entity as being higher than another in respects that include human nature. For I would be evaluating myself as the kind of entity from which decisions emanate, that is, as having whatever the features are that enable me to cause decisions.

2.7. Equality and Underlying Nature

The freedom of reason-based decisions, however, does not resolve all issues concerning our obligation to value others

equally as rational pursuers of goals. In particular, it does not explain our obligations to humans who are incapable of free decisions. For example, in what sense, if any, are children or those in comas equal to us as rational pursuers of goals?

To answer questions of this kind, Chapter 4 will argue that there is more to our equality as rational pursuers of goals than I have so far explained. A complete picture of obligation requires summarizing the conclusions of that argument, but the summary will involve a more technical discussion than I would prefer in this introduction. You might want to skip this section now and come back to it if you judge the rational appetite analysis of obligation worthy of further investigation.

For most people, to believe that we are equal in a moral sense is to believe that there is a respect in which we are equal that is more fundamental to what we are than are the respects in which we are unequal, and to believe this is to believe in a common nature underlying our differences, a nature more fundamental to what we are than are the respects in which we differ. Section 4.?? will argue that a common nature is not precisely what is necessary for ethical equality. Still, it happens to be the case that humans do share a common nature in a sense sufficient for ethical equality, and most people in fact believe in a common nature in this sense. But as Section 4.?? will also argue, belief in a common nature sufficient for ethical equality does not commit us to as much as one might think. Thus, not only is the common nature I am

defending not necessary for ethical equality, but the belief in a common nature sufficient for ethical equality is less controversial than belief in a common nature can be in other contexts.

The nature in question is a set of causal orientations¹ more fundamental than the proximate ability to make rational decisions we exercise when we are fully conscious or even the more remote dispositions to make rational decisions we possess while we are asleep or in a coma. Of course, human nature orients us to other activities than making rational decisions, but the latter activity is central to obligation, for the reasons already given. The importance for ethics of other human activities will be discussed in the appropriate places below.

Giving my pursuit of goals a higher place in my evaluations than someone else's pursuit of goals amounts to giving myself a higher place than her as a maker of decisions. The reason the relative evaluation does not stop at the decisions but includes the deciders is that I am aware of the decisions as emanating from and belonging to the other person and myself. The recipients of the unequal evaluations are the concrete entities that are the agents and subjects of the conflicting decisions. (The evidence that she is equal to me in this respect is the evidence that she too can consciously aim at making something exist as she has rationally conceived it to exist, that her conception of future goals can be based on her rational knowledge of what already exists, and that her satisfaction in an accomplished goal can derive from rational

awareness of what exists when that goal exists.)

But to be aware of myself as a producer of decisions based on rational knowledge is to be aware of myself as a being whose makeup includes features enabling me to produce such decisions; and to be aware that another is equal to me as a maker of decisions based on rational knowledge is to be aware that her makeup includes features enabling her to produce such decisions. The features enabling me to cause decisions include proximate dispositions, for example, my state of readiness to make decisions when I am awake. They also include more remote dispositions, for example, the dispositions for making later decisions that I possess when asleep, drugged, or in a coma. (For the analysis of obligation, it does not matter whether we identify the "rational appetite" with either these proximate or these more remote dispositions, as long as whatever dispositions enable decisions give them the finality of evaluating according to rational knowledge.)

Of course, it is not the dispositions that cause decisions; it is I who cause decisions by means of whatever features of my being enable me to make decisions. To be aware of myself as a cause is to be aware of myself as a concrete existent; only concrete existents, not their features considered in abstraction, can be causes (although, if this is understood, there is nothing wrong with calling the features causes).² But it is through certain features that I am made a cause of decisions. So in evaluating myself to be higher than another person as a producer of decisions,

I am evaluating myself to be higher as a concrete entity whose features enable him to be the cause of decisions. When I put my interests ahead of hers, I cannot avoid evaluating myself as higher with respect to what makes me a cause of decisions, since I am aware of our decisions as achievements, effects, belonging to us because of whatever features enable us to make decisions. That is why my comparative evaluation does not stop at the interests in abstraction from the entities whose interests are in conflict. To evaluate according to rational knowledge is to evaluate according to knowledge of what things are. What a thing is consists of a variety of features. Therefore, to evaluate someone equally to ourselves as pursuers of goals and do it according to rational knowledge is to evaluate them equally to ourselves with respect to the features that enable us to make decisions.

But both the proximate and remote dispositions by which I cause decisions are themselves effects of more fundamental features. The dispositions I have been calling proximate and remote, I will henceforth call the more proximate features enabling free choice. If the fact that our decisions are effects caused by means of other features requires evaluations made by rational beings not to stop at the decisions themselves, that same fact requires that those evaluations not stop at the more proximate features but extend to the more fundamental features enabling free choice. In particular, the more proximate features exist as effects of a underlying orientation belonging to human nature to

cause the existence of a being who acts through those more proximate features.

It does not follow, however, that this underlying orientation no longer exists when its effect, a being with the more proximate features, has been achieved. A living organism has an orientation to maintain itself in existence by its own activities. That is, the organism is oriented to activities that will cause the future existence of a being with a similar causal orientation to cause future existence. An orientation so described exists as long as the living organism exists. And our orientation to maintain ourselves in existence is an orientation to cause the future existence of a being with the more proximate features enabling free choice. Hence, the more proximate features are always effects of a more fundamental feature that continues in existence.

Still, this way of describing the relation between the more fundamental and more proximate features can make it appear that the causal relation between them is characterized by temporal succession rather than coexistence. The exercise of a disposition to cause the future existence of a being oriented to free acts does occur before those acts occur. However, our present activities would not exist now if the exercise of the disposition or dispositions by which we maintain ourselves in existence did not exist now; for if the latter did not exist now, we would be dead. An orientation to cause the continued existence of a being with a similar orientation to cause continued existence has to exist and

be exercised as long as we exist and act, because the exercise of that causal orientation is what makes us alive. Hence, all our present activities are now effects of our fundamental orientation to maintain ourselves in existence. That fundamental feature of human nature is the underlying feature enabling us to cause the existence of our activities.

We share the ability to maintain ourselves in existence with all living things. But the being we maintain in existence is a being whose nature also disposes it toward the production of free choices. We do not possess one ability to cause our continued existence as beings with the ability to cause our continued existence and another ability to cause our continued existence as beings oriented to make free choices. Our orientation to maintain ourselves in existence is our orientation to cause our continued existence as beings oriented to make free choices. Hence, our orientation to maintain ourselves in existence is the underlying feature enabling us to make free choices.

Moreover, our past ability to initially produce the more proximate features enabling free choice was, when it existed, an effect of an orientation to maintain ourselves in existence as beings oriented to the eventual production of free choices that also existed in the zygote. That is, when the zygote existed, it possessed the same causal orientation that is now the feature that ultimately enables free choice. Only certain genes disposed us toward the original production of the more proximate features

enabling choice. But what disposes us to maintain ourselves in existence is not this gene or this set of genes but the fact that our genes, whatever they may be, are oriented toward cellular activities, including reproduction through cellular division and the activities that lead up to cellular division. And we do not possess one orientation to cellular reproduction and another to specifically human cellular reproduction; our orientation to cellular reproduction is an orientation to reproduce a genetic plan oriented toward specifically human activities.

The 1-celled zygote's dispositions to cellular activities make the zygote an agent oriented to the eventual production of free choices and other human activities; for the zygote is oriented to initiate a chain of events that will bring into existence a being with the more proximate features enabling free choice. The fact that the production of the more proximate features enabling choice is a long way from the activity of the zygote does not make the connection between them accidental. The plan for the production of the more proximate features, as well as for the necessary intermediary steps, is encoded in the zygote, and if it were not, the production of the more proximate features would not occur. Furthermore, evolution selected the zygote because its genetic plan disposes it to initiate a chain of events bringing into existence the more proximate features enabling choice.

The zygote's dispositions to cellular activities also constitute an orientation to cause the continued existence of a

being oriented to the eventual production of free choices, and oriented to that eventual production by dispositions to cellular activities called for by the same genetic plan that gave the zygote its causal dispositions. For the reason the 1-celled zygote is oriented to the eventual production of free choices is that it is disposed to activities causing the continued existence of a being with a causal orientation toward the eventual production of free choices. The 1-celled zygote is oriented to cause that continued existence by initiating a process that will go through many stages. But at each stage an underlying orientation to cellular activities causing the continued existence of a being oriented to the eventual production of free choices will exist, will cause the continued existence of the process, and will be the ultimate cause of the activities that exist at that stage. The production of the more proximate features enabling free choice is one of the stages called for by the 1-celled zygote's orientation to cause the continued existence of a being oriented to the eventual production of free choices. So we are proximately disposed to the causing of free choices as an effect of a more fundamental causal orientation always belonging to human nature, the orientation to maintain ourselves in existence as beings oriented to the eventual production of free choices.³

Human nature includes but is not identical with our genetic code or with our dispositions to cellular activities. The bearer of human nature is the whole entity oriented to the eventual

production of decisions and other human acts; that is, human nature is nature of a complex whose parts are so organized that the whole is oriented to the production of certain eventual effects, including the effect of the continued existence of a being oriented to the same eventual effects. At one time, a 1-celled zygote is a whole whose parts are organized to be oriented to certain effects; at later times a 2-celled zygote or an n-celled adult is a whole whose parts are organized to be oriented to the same effects. The reason the later complexes are beings with the same underlying nature as the zygote is that they continue the orientation to cause the continued existence of a being oriented to the same eventual effects.

The later complexes continue that orientation by means of cellular activities called for the presence of the same genetic plan in each of the complexes' cells; for the genetic plan existing in the zygote and in the later cells calls for the existence of the later complexes of cells, and their activities, as stages in the continued existence of a being oriented to the same eventual effects toward which the zygote was oriented. But the presence of the genetic plan in the later cells gives them a relation to the causing of that continued existence and, therefore, to the causing of the eventual effects that differs from the zygote's. The genetic plan made the 1-celled zygote the entire agent oriented to causing the continued existence of a being oriented to certain eventual effects. The genetic plan makes the later cells only

parts of the agent oriented to causing that continued existence, that is, parts of the bearer of human nature; and the genetic plan gives the later cells functions in fulfilling the orientation to cause that continued existence that differ from the zygote's function and from each other's. As different genes switch on according to the genetic plan, the reproduction of different cells produces features with different causal orientations, that is, features enabling different activities, features like heart tissue, brain tissue, and so on. The dispositions that now ultimately enable of our production of free choices are the dispositions to the multitude of activities, called for by our genetic plan, by which we cause our continued existence as beings oriented to making free choices.

Human nature even exists when no complete set of DNA molecules exists, as when the original zygote is in the process of dividing. At that moment, there continues to exist, and not only to exist but also to act, a complex whole oriented to the production of the original zygote's eventual effects by causing the continued existence of that orientation. Hence, the genetic plan encoded in the DNA is not identical with human nature, not identical with the underlying orientation to the eventual production of free choices and other human activities. Rather, the genetic plan is the instrument through which that orientation remains in existence; for the genetic plan was selected by evolution for its ability to maintain that orientation in

existence.

There is a distinction between our nature's causal orientations and its causal dispositions. For example, as long as we live we are oriented to cause our continued existence as beings oriented to certain eventual effects. The activities by which the zygote maintains the existence of that orientation, activities causing cellular division, are only a subset of the activities by which the organism with differentiated tissue will maintain that existence. So our orientation to cause our continued existence is embodied in different dispositions to behavior at different times. But those various dispositions are all called for by the same genetic plan selected because the causal dispositions it produces are oriented to maintaining the existence of a being oriented to the eventual effects. The various stages of development we go through are part of a genetically encoded plan which requires an underlying disposition or set of dispositions, perhaps different at different stages, always describable as an orientation to cause the eventual production of certain effects by causing the continued existence of a being oriented to those effects.

The essential point is that we have a nature constituted by an underlying and continuously existing orientation to effects of certain kinds. Unless our original dispositions to behavior constituted an orientation to cause the continued existence of a being with an underlying set of dispositions oriented to the eventual production of these effects, our later dispositions could

not come into existence, nor, if they did exist, could they continue in existence or be exercised. At every moment of our existence, an agent oriented to the eventual production of free choices and other human acts exists. The orientation to the eventual production of free choices does not always coexist with the more proximate dispositions enabling free choices. But even when those more proximate dispositions exist, they are not the most fundamental features making the agent a producer of free choices. The agent's genetically designed orientation to maintain itself in existence as an eventual producer of free choices is still in existence when the more proximate dispositions exist. And the exercise of the orientation to maintain a producer of free choices in existence not only was the cause of the coming into existence of the proximate features enabling choice but is now the underlying condition necessary for acts of choice. So the agent currently making free choices is still most fundamentally made a producer of free choices by an underlying causal orientation that existed when the proximate features enabling choice did not exist.

Chapter 4 will argue that one does not have to know genetics to know that rational deciders are made such by a nature that continues in existence and underlies the more proximate features enabling choice. One only has to know that we are alive. For life is a causal orientation to maintain in existence an orientation to the same eventual effects. That is what we happen to call "life." The kind of agency we call life does not have to exist, but it

happens to exist, and since it does, certain consequences follow. In particular, since we know human life exists, we know that human life is the underlying source of our ability to make rational decisions. In other words, without knowing anything about the genetic explanation of the existence of human life, we know what it is that is to be explained. At least, we know enough to know we must explain an orientation to cause the continued existence of an orientation to the eventual production of human acts, for we know that that orientation, human life, is the underlying source of all our acts.

What are the implications of this analysis for the finality of valuing things according to rational knowledge of what they are? The causal orientation ultimately underlying decisions must be the fundamental feature in respect to which things are evaluated to be what they are; otherwise, the evaluation would be defective by the standard of failing to evaluate according to our rational knowledge of what things are. For that underlying orientation is related to the more proximate features enabling choice as a principal cause to an instrumental cause, or as what exists primarily to what exists secondarily. I am made a cause of decisions by means of the nature I already possessed as a zygote, somewhat as it is the artist rather than her tools that is principally the cause of a human fabrication. In order to make something, an artist may first have to make a tool. But the artist is more the cause of the final work than is the tool. The tool produces the effects it does only

because it is both designed by and used by the artist to produce those effects. Likewise, in order to cause decisions, an organism must first produce whatever features proximately dispose it to cause decisions.

Decisions are not ends in themselves; they are means to the kind of ends we are related to by the orientations of our underlying nature (see Chapter 5 and Section 6.2). In fact, our more proximate dispositions enabling choice are means to ends, to achievements, orientations to which are inscribed in the zygote; for evolution selected the human zygote because of its relation to achievements of that kind. Therefore, reason knows that decisions and the more proximate dispositions enabling them are related to the more fundamental features of the rational decider the way tools are related to the artist; and an evaluation of humans as pursuers of goals is defective as an act of a rational appetite if it does not evaluate us with respect what reason knows about the nature through which we principally become causes of rational decisions.

Another aspect of the features by which we make decisions leads to the same conclusion. Usually, the tools an artist makes in order to produce her final work exist independently of her, as brushes exist independently of the painter. However, the more proximate features enabling me to make decisions exist in me derivatively and secondarily relative to the more fundamental features of which the more proximate features are achievements. In this respect, the more proximate features are like the artist's

tan, muscle tone, or weight, and not like her brush. The more proximate features exist only by residing in a being constituted what it is by more fundamental features, features by which the more proximate features are caused. And it would be defective for an appetite adapted to what exists as known by reason to value things according to what exists secondarily and derivatively more than what exists primarily and foundationally. Thus, it would be defective to value the artist's tan, muscle tone, or weight more than her life.

The features primarily responsible for our being causes of decisions are features belonging to our underlying nature. Therefore, in denying another person an equal opportunity to pursue goals, I cannot avoid evaluating us as if we were unequal with respect to our underlying nature. Since the finality of the rational appetite is (1) to evaluate concrete entities (2) according to what reason knows of them, my evaluation could abstract from the nature only if I did not know that the underlying nature made me the kind of entity that can make decisions. In making the decision, I am evaluating myself as a certain kind of agent. The fact that it is my nature that enables me to be such an agent by producing the proximate features is something that could not be altered by a choice to act as if it was not. If I chose to kill a pre-rational child or someone who was comatose on the grounds that she was not then equal to me with respect to the proximate ability to make decisions, my decision could not avoid

evaluating her as if her nature were not equal to mine. I would still be evaluating one concrete entity as being higher than another in respects that include human nature. For I would be evaluating myself as the kind of entity from which decisions emanate, that is, as having whatever the features are that enable me to cause decisions.

Likewise, if I chose to kill a zygote, I am evaluating her as if her nature were not the same as the underlying nature that enables me to make rational decisions. But there is no denying that the overwhelming multitude of features in respect to which zygotes and adult humans are not alike can obscure our unity in underlying nature and the ethical significance of that unity. To put that significance in sharper relief, consider that the adult's maturely developed abilities do not get their value from themselves. The ability to achieve X has value because X is a value. That is, an ability is a means, and means derive their value from the ends that can be achieved through their use. The ability to achieve X bestows a value on a being oriented to end X in the sense the state the thing is in when it possesses that ability is better than the state it was in previously, all other things equal. But the possession of the ability is better for the thing only because the thing was previously, or in the present is more fundamentally, oriented to end X. The ability does not bestow a value in the sense that depriving something of an already existing ability would be worse, by the standard of the thing's

goal of achieving X, than would preventing it from acquiring that ability to begin with.

The causal dispositions of the zygote are oriented to the end of the eventual production of decisions based on rational knowledge, just as are the causal dispositions of the adult. And it is just as defective to decide that the zygote not be able to achieve that end as it is to decide that an adult be able to achieve that end no longer. In both cases, we deprive a thing whose end is the making of decisions based on rational knowledge of the ability to achieve that end. The adult already possesses that ability, but it is not the possession of the ability that gives the adult the ethical "right" to that ability (in the sense of "right" to be discussed in Section 3.??). What gives an adult a right to that ability is the fact that she needs that ability to achieve her ends. But the same ends, requiring the same ability, are inscribed in the zygote's causal orientations. If there is a difference between depriving the causal system constituted by the zygote of the opportunity to cause the eventual production of free choices and depriving the causal system constituted by the adult of equal opportunity to pursue chosen ends, the difference is that depriving the zygote of that opportunity is usually ethically worse, since we usually do not kill adults when we deny them equal opportunity to achieve their ends.⁴

A zygote is often considered only a potential human being, where an actual human being would be a possessor of features such

as the more proximate features enabling choice. It has been said, for instance, that a mature steer is incomparably more rational than a human child. But contrast a zygote or child to the steer's meat or to any other thing that can become human food. Beef is potentially human in the sense it, or the material making it up, can become part of the causal system we call an adult human being. But by being what it is, that is, by having the causal dispositions that constitute its nature, neither a steer nor its beef is not oriented to the eventual production of reason-based decisions. One cannot read the bovine genome and find an orientation to activities of that kind. But the zygote's genome does contain an orientation to activities of that kind, just as much as it contains an orientation to the eventual production eyes of a certain color. So when we deprive the zygote of the opportunity to cause the development of the more proximate features enabling choice we are depriving the zygote an end to which it is oriented by its nature, while depriving beef of the opportunity to become part of a causal system with the more proximate features enabling choice does not deprive the beef of an end to which it is oriented by its nature.

The existence of a zygote is the existence of potentially human life in the sense that what the zygote actually is orients it toward the production of specifically human activities, like the first reproduction of the zygote's human genetic code and the eventual production of free choices. Food potentially partakes of human life, and food's potentiality for being human is identical

with what it actually is. But what the the food actually is does not include an orientation to specifically human activities. In other words, food is a passive potency for becoming human, while the zygote is an active potency for the production of specifically human effects. The zygote is sometimes referred to as the genetic "material" from which actual human life will later emerge. But material in this context connotes a passive potency, like the potency of the material out of which a sculptor molds the statue. Instead, the zygote is analogous to the sculptor. The zygote's role in human development is that of an efficient cause, not a material cause. Since the efficient causality in question constitutes life, material making up the zygote is also the receiver of the activity. That is, the zygote's causal dispositions include dispositions for parts of the zygote to act on other parts to produce an effect made up of materials at least some of which were in the original zygote. The zygote's activities would not be what we call "life" unless the material acted on could be described, not just as passively potential, but as itself a member of the system whose active potencies make it the agent for these activities. And the reason the zygote has an orientation to activities that continue the same orientation in existence is that the result of the zygote's activities is itself an agent oriented to continue that orientation by its activities.

Incidentally, the basis for saying it is the zygote that develops or grows into a human being is what it is that exists

throughout the process of change the zygote initiates. Something remains in existence throughout every change, something which exists in one state before and another state after. That is what distinguishes change from creation ex nihilo. In the process initiated by the zygote, what exists before, during, and after is some of the same material making up the zygote and an active orientation to the same eventual effects to which the zygote is oriented. The zygote's orientation is to act on parts of itself to produce a causal system continuing the presence of an orientation to the same ultimate ends as the zygote was oriented to in some of the same matter that belonged to the zygote.⁵ And the zygote is oriented to initiate a process in which that description applies to the relation between agent, material, and result at every successive moment of the process. Development or growth, as opposed to mere succession, is that kind of continuity between agent, material, and result. And when an agent's causal dispositions orient it to activities of that kind, the agent is said to develop by means of those activities. To put it another way, that is why we say it is the same agent that exists at each stage of the process: some of the material making up the present agent is the same, the present agent has an orientation to the same eventual effects, and the existence of that orientation in some of the same material is the result of the prior agent's orientation to produce the eventual effects by causing a continuation of an orientation to them in some of the matter then making up the agent. As a result

of this relation between agent, material, and immediate and eventual effects, it never ceases to be the case that some of the matter now making up an agent oriented toward the production of certain ultimate effects by acting on matter that makes it up will go to make up an agent oriented toward producing the same ultimate effects by the same means. Likewise, it never ceases to be the case that such an orientation exists in an agent made up of matter that existed in an agent with such an orientation.

It follows that the causal orientation existing at each stage of the process is the same individual causal orientation. The causal relation between agent and patient is a diachronic relation; it exists throughout a span of time. The result of a process of change exists after the process. But the causing of a change exists simultaneously with the change. Hume asked why the simultaneity between cause and effect would not drive time out of existence. For if all events are effect of prior causes and are themselves causes of posterior effects, yet cause and effect are simultaneous, must not all events be simultaneous? So simultaneity would drive time out of existence unless causality itself takes time. For example, the causality required to move water from being frozen to boiling exists throughout the process; once water reaches the boiling point, other diachronic processes requiring that temperature can begin and can continue to exist. Since the causing of water going from being frozen to boiling exists throughout the process, an agent whose orientations to activity enable that

causality to occur must exist throughout the process, for example, a heating element with a temperature at or above water's boiling point.

Of course, the element's temperature may fluctuate with time as a result of the action of other causes on the material making up the element. The zygote's activity is influenced by other causes as well. But to the extent that those other causes do not interfere with the orientations inscribed in the zygote by the genetic plan, those orientations remain in existence throughout the zygote's action, since they are what call for the diachronic activity of the zygote. That activity results in changes in the dispositions that carry on the orientation, but the orientation calling for those changes in dispositions must exist diachronically as what determines the agent to diachronically produce the activities resulting in those changes.

One point at which we might be tempted to say that an individually distinct human causal orientation has replaced the original orientation is that point at which there is no matter remaining from the original bearer of the orientation. For example, the matter making up an adult human is completely replaced every seven years, as we all know. But consider points A and B, eight years apart in the life of an adult. The agent existing immediately after B is made of some of the same matter that existed immediately before B, and an individual diachronic causal orientation exists immediately before and after B, since B is a

point in a continuous process of causality. But the same description applies to any point selected between A and B. The same individual causal orientation existing immediately before any such point also exists after it. Therefore the fact that, by the time of B, all of A's matter has been replaced cannot imply that the same individual causal orientation does not exist at A and B. And a fortiori, if a total replacement of matter does not imply an individually distinct causal orientation, lesser changes cannot imply it.

But cannot the zygote's initial causal orientation begin undergoing changes as the zygote acts, just as a heating element can undergo fluctuations in temperature all the while the element is causing the water to reach the boiling point? Not only can the orientation undergo changes, but that is what the zygote's causal orientation is all about; that is what it means for a living agent to grow and develop while being the same agent. For to say that the causal orientation undergoes changes is to say that the causal orientation, or the individual agent with the causal orientation that constitutes the agent's individual nature, is what remains in existence throughout the changes; the same agent, made such by the same orientation existing in some of the same matter, exists in one state before the change and another state after. Likewise, as long as the element's temperature variations keep it above the boiling point of water, the element is characterized by an orientation to raise things in its environment to that temperature, and when the

temperature fluctuates below that point, the activity of raising water to that temperature ceases. The main difference, for this discussion, between the examples of the zygote and the heating element is that there could be more justification in saying that changes in the temperature of the element result in distinct causal orientations; for those changes do not constitute life and so do not result from a orientation to maintain in existence a orientation not just similar, but, since they are diachronically continuous, really the same.

To return to the question of the zygote's being only potentially human. We contrasted the sense in which the zygote is potentially human to the sense in which food is potentially human. Now contrast the existence of the zygote to the existence of the ovum and sperm that will become the zygote. By being what they are, the ovum and sperm are potentially human in a way that food is not. Ova and sperm are agents oriented to activities that will produce an agent oriented to the eventual production of human effects. But when the ovum and sperm exist separately, there does not yet exist an agent whose orientation to eventual effects is an orientation to all the eventual features and activities we call human; there does not yet exist a complete human causal system. When the zygote exists, there does exist such an agent, a causal system oriented, as a unified system, to all the eventual features and activities we call human exists. Since the zygote is the same agent that will later produce the eventual effects, we can say that

agent is in some sense only potentially human, since it has not yet developed features like the more proximate features enabling choice. Yet in another sense, it is actually human, since it is a complete causal system oriented to the eventual production of human effects (including the specifically human activity of reproducing the complete human genome). In other words, the zygote does, and the ovum and sperm separately do not, possess human nature. In order for an individually distinct human agent to exist, the ovum and sperm must lose their identities as individual agents. Separately, they are only potentially parts of a complete human agent. The 1-celled zygote loses its identity as a 1-celled zygote by acting, but the agent that results is same agent that existed when the 1-celled zygote existed.

In this sense of human nature, the phenomenon of twinning, or the opposite phenomenon of previously divided cells recombining, are irrelevant to the 1-celled zygote's status as a complete instance of human nature. There is nothing to prevent some of the matter that at one time was part of a human individual from separating from that individual and becoming part of another human individual. Nor is there anything to prevent matter that is not now part of individual A from becoming part of individual A; whether that matter is now part of another individual is a question I do not have to answer. Neither, therefore, does the emergence of the "primitive streak" have anything do to with the zygote's status for the rational appetite. The primitive streak is, like all other

features we develop, an instrument of the nature that underlies and causes all our development. From the perspective of the rational appetite's finality of evaluating according to reason, the 1-celled zygote must be considered as much a bearer of human nature as is an adult. Again, we cannot avoid evaluating the zygote to be or not be an agent with the same underlying nature that enables us to make free choices, since we cannot avoid evaluating ourselves to be agents with features that enable us to be makers of free choices. In a comparative evaluation of ourselves and others as makers of reason-based decisions, we cannot avoid a comparison with that which principally and ultimately causes us to be makers of reason-based decisions, human nature. Therefore, we cannot avoid evaluating the zygote either correctly, by evaluating it to be like us in having human nature, or defectively, by not so evaluating it.

This discussion of the zygote's humanity was undertaken to underscore zygote's moral significance in the face of the uncountable ways in which the zygote is unlike us. But can a somewhat complex and very abstract analysis be expected to overcome the psychological impression made by the concrete ways in which we differ radically from the zygote? Perhaps it can if we realize that what is really at stake in the question of the zygote's ethical value is the existence of any objective, unconditional, and knowable ethical values whatsoever -- including the value of adult human life.

If the value of the zygote's life is a matter of an adult's

personal preference, then our decisions do not have the finality of evaluating things to be what reason knows them to be in their extramental existence. Therefore, it is not too much to say that, if the value of the zygote's life is a matter of an adult's personal preference, there are no objective, unconditional, and knowable ethical values. For the adult's possession of features like the more proximate features enabling choice does not provide an objective basis for valuing adults unequally to zygotes. Again, a possessor of abilities does not acquire her right to them from the abilities themselves. Abilities have value because they are needed for ends, and the ends which our mature abilities serve are ends to which the zygote's nature is casually oriented.

Of course, those who ignore the rational appetite's finality of evaluating according to reason's knowledge need not shrink from the conclusion that there are no objective, unconditional, and knowable ethical values. But if not, the value of an adult's life cannot have these characteristics either. The value of zygotes and adults would be equal in their lack of these characteristics. I am not talking about the value of an adult's life for the adult whose life it is; I am not talking, for example, about whether an adult can ethically choose to terminate her own life.⁶ I am talking about the value of one adult's life for another adult, just as I am talking about the value of a zygote for a human mature enough to make decisions based on rational knowledge.

If the statement that a mature steer is more rational than a

human child is meant to imply that the steer has more ethical value, then the value of an entity for our decision-making abilities is determined by its behavior rather than nature, that is, rather than by the underlying cause enabling the behavior. But if our decisions have the finality of evaluating according to rational knowledge, they have the finality of evaluating according to our knowledge of what things principally are in order to act they way they do. A nature is lower or higher, by the standard of that finality, according to whether the eventual ends to which it is oriented are higher or lower, by the standard of that finality. What a human child now is has more value by that standard than does an adult, no matter how mature, of a species whose nature does not orient it to making free decisions. A relation of being the principal cause of free decisions belongs to the child's nature. That relation is part of the structure of the child -- even if it is a zygote, part of its identity with what it is.

they areTo get a better what about the case of the brain-dead? person, on the other hand, possesses a It follows that we evaluated of pre-rational children of of those in comas as From this it can be seen what our obligations are to children, the insane, and those ot

1.. One might want to make a distinction between our nature's causal orientations and its causal dispositions. For example, as long as we live we are oriented to cause our continued existence as beings oriented to certain eventual effects. The activities by which the zygote maintains the existence of that orientation, cellular reproduction, are only a subset of the activities by which the organism with differentiated tissue will maintain that existence. So we could say our orientation

to cause our continued existence is embodied in different dispositions to behavior at different times. I will not make this distinction. My argument is that the various stages of development we go through are part of a genetically encoded plan which requires an underlying disposition or set of dispositions, perhaps different at different stages, always describable as an orientation to the eventual production of certain effects. In other words, the essential point is that we have a nature constituted by an underlying and continuously existing orientation to effects of certain kinds. Unless our original dispositions to behavior constituted an orientation to cause the continued existence of a being with an underlying disposition or set of dispositions oriented to the eventual production of these effects, our later dispositions could not come into existence, nor, if they did exist, could they continue in existence or be exercised.

2.. This argument does not require a metaphysics of the person as something distinct from the sum total of its dispositions. Even if a person were no more than a "bundle of dispositions," it would be the bundle that acts, or the disposition would act but only as part of the bundle. The essential point is that it is existents that act; and existents are concrete, not abstract, as are dispositions considered separately from the concrete wholes of which they are dispositions.

3.. Human nature is not constituted by the genetic code. The bearer of human nature is the whole entity oriented to the eventual making decisions; that is, human nature is a complex made up of parts so organized as to be oriented to the production of certain effects. At one time, a 1-celled zygote is such a organization of distinct parts; at later times a 2-celled zygote or an n-celled adult is such an organization of parts. The reason the later complexes are beings with the same underlying nature as the zygote is that they continue the orientation to the same ultimate effects by means of the presence of the same genetic code in each of the cells. But the presence of the genetic code in the later cells gives them a different relation to the ultimate effects than did the presence of the code in the 1-celled zygote. The genetic code made the 1-celled zygote the entire agent oriented to the production of the ultimate effects. The genetic code makes the later cells parts of the agent the continues the orientation to the production of those effects. The genetic plan existing in the zygote and in the later cells calls for the existence of the later unions of cells as stages in the accomplishment of the ultimate effects toward which the zygote is oriented. Human nature even exists when no complete set of DNA molecules exists, as when the original zygote is in the process of dividing. At that moment, there continues to exist, and not only to exist but also to act, a complex whole oriented to the production of the original zygote's ultimate effects.

4.. But consider a case where we could prevent the zygote from causing the development of that ability without killing the zygote. We may someday be able to alter a zygote or embryo so that it can develop physically but not develop human mental powers. That way we could, for example, develop a slave class of underdeveloped, otherwise human, beings. If the embryo does not have the right not to be deprived of its opportunity to develop fully, there is nothing wrong with treating it this way.

5.. Individual ultimate ends. Reproduction of another member of the species causes the existence, in some of the matter that belonged to the agent, of an orientation to specifically similar ultimate effects, but not the same individual effects, e.g., eyes and blue eyes but not the same blue eyes that exist in the parent.

6.. On suicide, see Section ??.