THE PROBLEMS WITH "PERSONS"

Presidential Address

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This paper originated in the fact that for the last three years I have consistently been unable to convince students in medical ethics classes that the notion of "person" as distinct from "human being" makes sense. The majority of students who take this course are medical or nursing students and are above average in intelligence, motivation, and scientific education. Thus, it has seemed to me that this educational problem is not a problem with the students.

For three years, three semesters a year, two or three sections a semester, I have assigned standard philosophical articles on the notion of person. In almost every instance the students have rejected the ideas presented. They are perfectly able to restate the idea, but if asked their opinions, most students reject the idea of "person."

While I am not a proponent of the "common man" argument, it is nevertheless worrying to find a majority of students consistently rejecting a standard philosophical notion. Furthermore, they are willing to accept much less obvious and outré ideas, such as Rawl's "veil of ignorance." It therefore has seemed to me that there is some basic problem with the idea of "person."

The contention of this paper will therefore be that the notion of "person" as it exists in philosophical theory, is inconsistent with the ideas of modern science and thus cannot, as generally stated, be successfully assimilated into medical ethics. Why this is the case will be examined and a new formulation will be proposed.

Theories of "person" in philosophy may be divided into four large groups, which I shall call (1) the Cartesian, (2) the Kantian, (3) the social, and (4) the materialist. Each one, when carefully examined, exhibits a "failure of fit" with contemporary science.

The oldest approach to providing criteria for the idea of person is what I will call the Cartesian, after one of its major

proponents.[1] This approach looks for a criterion in some attribute of mind. This approach may be further subdivided on the basis of the mental attribute or behavior being considered.

The most common definition of "person" within this group rests on the presence of usage speech.[2] Because of the other-mind problem, a large number of philosophers have asserted that the way to recognize whether an entity is a person is to see whether that entity can communicate by using speech.

Obviously by speech these philosophers do not mean the mere making of sounds. Rather, there must be meaning in the speech and ecolalia; mere repetition such as that of a parrot or an autistic child do not count, as does not mechanical sound reproduction as that of a record player. Likewise, most philosophers who hold to this view would not limit speech to sounds: sign language, writing, and so on, are allowed to count as speech. Otherwise, deaf people using American Sign Language would not count as persons. Likewise, it is possible to imagine communication that does not make use of sound modulation but rather uses some other wave phenomenon, such as light. Speech or language in this context clearly refers to a complex, open, recursive and infinitely variable symbol system with conventional meanings and capable of being used to provide novel utterances.

When Descartes formulated this approach, it was quite plausible. With the possible exception of deaf-mutes and a few rare individuals with syndromes that did not kill but made speech impossible (a small group within the medicine of the time), this criterion successfully divided the world of living creatures into "human" and "non-human.'" The idea of a machine which could speak had not even been thought of as a real possibility.

However, in the second half of the twentieth century, this is no longer the case. The first challenge to this sort of criteria comes from work in teaching chimpanzees and gorillas sign language.[3] At least one member of each species has reached a functional level of sign language equivalent to a deaf human child. We would not wish to claim that a human child who happened to be deaf was not a person, and so by this criteria, it

is difficult to see how "speaking" apes are to be excluded.

An objection to this line of argument has been made by B. F. Skinner, who asserts that the great apes in question are merely exhibiting "clever Hans behavior."[4] This term refers to a circus horse during the last century who appeared to be able to add and subtract. If questions were asked, such as "How much is two plus two?" Hans would answer by pawing the ground with his foot four times. After considerable observation, this phenomena was explained as a learned, conditioned response. When Hans reached the correct number, his trainer, who could of course add, would tense very slightly. Since horses, as herd animals, are extremely sensitive to nonverbal cues, Hans perceived this tension and stopped pawing at the "correct point." When Hans couldn't see his trainer, he could no longer do mathematics.

Skinner has claimed that the apparent speech activities of the great apes are the same sort of phenomena. He claims that the apes are picking up subtle cues from the humans around them and are essentially exhibiting conditioned responses. A number of observations make this implausible, beyond the inherent implausibility of such complex behaviors being merely conditioned responses. First, Washoe the chimpanzee and Koko the gorilla have invented neologisms when confronted with new objects. Washoe called a duck a "waterbird," combining two words that she knew. Koko named her pet kitten "All-Ball," a rather good name for a kitten. Further, Koko had requested her kitten as a pet. Her human associates did not think that this would be a particularly good idea and got a stuffed toy kitten for her. Koko objected that she wanted a "real kitten." When she got it, besides naming it, she cared for it quite well and mourned its death when it was run over by a car. Both Washoe and Koko have spontaneously used "bathroom words" to swear with and both have lied when they have been naughty. It is difficult, to the point of impossibility, to explain these behaviors as complex and conditioned responses. It seems clear that the great apes are capable of some speech.

There has been recently even a suggestion that at least one chimpanzee mother has signed to her baby. *Planet of the*

Apes may not be as far-fetched as it once seemed. Whether this behavior will continue to propagate, as food washing has among Japanese snow monkeys, remains to be seen, but certainly it seems to me that we must grant that there are some great apes who can speak.

However, including only those apes who have learned sign language as "persons" would result in the irrational conclusion that only "educationally advantaged" apes are persons, while the rest are not. This would require us to exclude educationally disadvantaged deaf-mutes if we are to be consistent. If we consider all great apes to be persons, we violate our intuition that apes are not ethically as important as humans. We will find this pattern of either including too much or excluding too much in virtually all the usual approaches to defining "person."

A second body of data that affects using speech as a criterion for "person" is the attempts of artificial intelligence theory to enable computers to synthesize and understand speech. Let it be said immediately that at present no computer can pass any form of the Turing test, which is the generally recognized criterion in AI research.[5]

A simplified Turing test involves two humans and one computer, all three in different rooms and linked only by a keyboard and some form of written output. The three exchange comments, and if the first human cannot tell which is the computer and which is the human, the computer is said to have passed the Turing test.

A sort of unintentional Turing test was passed by the program ELIZA, which imitates the speech of a psychotherapist.[6] A naive person once spoke to ELIZA on the phone and did not realize that the party on the other end of the line was a computer. However, the utterances of psychotherapists are extremely constrained and poverty-stricken when compared to normal speech. Thus, this is not a completely satisfactory test.

On the other hand, many humans couldn't pass the Turing test. I could, for example, probably differentiate a freshman student in Philosophy 110 from one of the people at this conference. Likewise, one could easily recognize a child, say,

or someone of limited intelligence.

The criterion of speech as a definition for persons is undermined by a computer having some usable speech. After all, many humans whom we would term "persons" do not have great verbal facility. Since the subject-verb-predicate barrier has been overcome,[7] it seems to me that computers have enough usable speech to threaten this definition of "person." Those who would question whether computers can use speech are invited to use one of the extremely sophisticated speech-synthesizing programs at Sandia Labs or Los Alamos and then see if this objection is supportable, especially as, at this point, I am only considering the issue of speech itself and not its origin. If computers have usable speech, then in principle they might at some future date be defined as persons. Can computer suffrage be far behind?[8]

A second approach that looks for a criterion of person in some mental aspect is that of Leibniz, who asserts that a person is one capable of rational thought.[9] Clearly this criterion is useful to medical ethics only if some behavioral correlative of rationality can be found that can be objectively verified. Medical science cannot make use of wholly subjective data.

One suggestion for such a behavioral criterion is that of persistent movement toward a goal.[10] This seems to be the sort of thing, perhaps, that Hobbs had in mind.[11] However, such a criterion for "person" is a particularly unsuccessful approach. Virtually all living creatures exhibit goal-directed behavior. Indeed, a guided missile and even a common thermostat exhibit goal-directed behavior. All that is required to produce this is a negative feedback loop.[12]

Clearly, some more complex idea must be intended. Usually this more complex behavior is termed "rational" and equated with having "meta-goals." Persons do not merely have goals; they have goals that lead to other goals. They study in order to get a grade so as to get a degree so as to get a job that will get them money with which to buy candy. Animals are only capable of directly seeking candy. A more scientific formulation of persons is, "Those who make tools in order to make tools."[13]

However, this is a quantitative rather than qualitative distinction. The making of tools to make tools has been developed by anthropologists because of the discovery that the great apes use tools, as do sea otters and many birds. Clearly, tool using in itself is not a sufficent criterion.[14]

When we examine the record of ancient tool-making, however, it is not clear just when the trait of making tools to make tools appeared.[15] It sems clear that, before the emergence of the species "*homo*," all tool use was of existing objects for an immediate purpose, similar to the behavior of chimpanzees today. It is further clear that by the time of *homo erectus* there is a "tool kit" with clear patterns and rules established by tradition. The intervening period, however, is one of gradual change rather than abrupt invention. Choosing of better natural rocks gives way to casual bashing, to more directed bashing, and so forth. There is no point at which we can say, "Here, at this point in time, human beings have become rational."

An alternative way of examining the development of human mental equipment is to look for developmental points, such as the appearance of a belief in life after death, which emerged among *homo sapiens neanderthalensis,*[16] or the practice of art, which occured with the appearance of *homo sapiens sapiens cromagnon.*[17] Either of these is a satisfactory criterion for defining a particular point in human development, but neither provides a definition for "person." Being artistic or religious is not a prerequisite for being a person, in spite of the views to the contrary on the part of TV evangelists or art appreciation professors.[18]

In somewhat the same vein, creativity or the capacity to produce novel ideas is sometimes proposed as a criterion for "person." However, until "creative" and "novel" can themselves be sufficiently well-defined to exclude finger paintings by chimpanzees and music composed by computers, not to mention paintings by elephants, this approach will not serve.

A second way of examining rationality is to consider problem-solving activities. At the time of Leibniz, it was obvious that only people could do things like logic proofs. This

criterion, unfortunately, was one of the first to fall to computer science. Computers have been able to manipulate formal systems as well or better than people for at least twenty years.[19] Even chess has been conquered, and one program now holds the rank of grand master.[20] There is a certain irony in the fact that computer science has its origin in Leibniz's work on symbolic logic.

"Real life" problem-solving has proved more difficult for AI, and learning to "put the red block onto the green chair" has proved to be quite difficult for computers.[21] However, computers are getting more skillful, and again we have not a qualitative but merely a quantitative difference.

Further, the sort of "aha" problem-solving that is usually given as an example of rationality can often be observed in animal behavior,[22] as anyone who has had a "Houdini of a pet" has probably discovered. In a more formal vein, experiments by gestalt psychologists in the first half of the twentieth century showed that problem-solving ability among primates is only quantitatively different from that of humans.[23]

The third quality of mind which has been proposed as a criterion for "person" is that of consciousness.[24] This is, perhaps, the least satisfactory approach that we have so far considered. Due to the other-mind problem, consciousness is something I can never certainly predicate of anyone other than myself. There is no way directly to discover whether a computer, Koko the gorilla, or the individual to my left is conscious. Virtually all the evidence I have on the matter comes from language, and this is subject to the problems we have already discussed.

Futhermore, as Gunderson has pointed out, the term "consciousness" is singularly ill-defined.[25] A criterion that I can neither define nor observe seems singularly useless when making ethical decisions.

Alternatively, we could follow in the lead of U. T. Place and agree that certain brain states—those that are observable—correspond to consciousness.[26] Unfortunately, the very science of neurology, which makes these states

observable with an evoked potential EEG, presents us with difficulties.[27]

When an individual with multiple personality syndrome is examined with an evoked potential EEG, the various personalities show patterns as different as the patterns of two different individuals. Is the individual (in the sense of a single body) one person or many? How can we ascribe blame if one of the personalities exhibits immoral behavior? Furthermore, there is nothing in a human brain pattern that is qualitatively different from that of animals that could serve as a criterion for "person." Likewise, the earlier stages of such progressive dementias as Alzheimer's cannot be successfully diagnosed, even though behavior in such cases suggests a gradual loss of self-awareness.[28]

A few other traits, such as empathy or an awareness of time, have been proposed as part of a "checklist" approach to defining "person."[29] None of these taken by itself will serve as a criterion. Those who have proposed them recognize that there are some individuals, such as the autistic,[30] who lack the trait in question but are nevertheless clearly persons. Also, the evidence for these traits invariably comes from language, which we have already found wanting.

To summarize the argument to this point: I have examined one group of approaches to defining what counts as a person, the Cartesian, which looks at mental traits. I have shown that all of these (1) involve purely subjective data that are of no use to medical ethics, (2) include too much or exclude too much, or (3) provide only a quantitative rather than qualitative distinction.

The second primary approach to defining "person" is what I have called the Kantian, after its founder.[31] It cuts through all of the subjective-objective problems of traits of mind and goes directly to the heart of the matter by asking, Is the individual in question a moral agent? Alternatively, we can formulate this approach as the notion that, in order to be a person, an entity must be capable of being praised or blamed. Certainly the application of this to medical ethics is clear.

But this approach also fails critically to differentiate

animals and humans. All normal human beings have a sense of right and wrong, however strange the content of the sense may be (to another's point of view). Thus, all human beings past a certain age who are neurologically normal feel that some things are "right" and should be done and that some things are "wrong" and should not be done. It therefore makes sense to praise them for doing what they feel to be right and to blame them for doing what they feel to be wrong.

Unfortunately, not all human beings are neurologically normal. Damage to certain parts of the frontal lobes will remove this sense of right and wrong.[32] There is a classic case of a man in the last century who had a spike driven (accidentally) through his skull. Although his general intelligence was not affected, his capacity to feel that some actions were wrong disappeared.[33] This also sometimes occurs as a function of a prefrontal lobotomy,[34] a procedure that makes the patient less anxious but at the expense of an important part of human functioning. It has been suggested, and partially confirmed pathologically, that individuals who commit particularly heinous crimes and experience no sense of remorse have suffered such damage at some time, perhaps prenatally.[35] Clearly, therefore, there are some individuals whom we would wish to count as persons who cannot be held accountable because they literally can't tell right from wrong.

On the other hand, it seems to me that some animals are capable of being moral agents, at least to some extent. My dog has a clear idea that there are some activities, such as stealing the porkchops for dinner off the counter, that are wrong. If she does this anyway, she gets what I can only describe as a "guilty look on her ears." She holds her ears close to her head, looks down, and carries her tail flat. These make up the posture that all canines use to exhibit guilt.[36]

I don't believe that I am anthropomorphizing this behavior. Wolves in the wild have been observed to behave in this way when they have transgressed the rules of wolf society.[37] This behavior in wolves may be instinctive. There is no way to know whether the content of wolf moral systems is built-in or learned.

Nevertheless, my dog's response is clearly learned. There is no instinctive rule against taking unguarded food among wild canines.[38] I am the one who has made it clear to my dog that this behavior is wrong. It is not merely that my dog fears punishment and is thus exhibiting negative conditioning. If that were the case, my dog would run away as my cat does when caught doing something I disapprove of. Rather, my dog exhibits penitent behavior, much like a human who says, "I'm sorry. Please forgive me." As a matter of fact, I generally don't punish my dog precisely because she acts guilty (which is, of course, the point of such behavior in wolf society). Thus, if the behavior were merely conditioned, it should have extincted long ago, which it has not. It thus seems to me to make sense to speak of praising and blaming my dog.

On the other hand, the same cannot be said of my cat. She is aware that there are things, such as stealing food, that I would rather she didn't do. However, she avoids these actions only when there is a reasonable chance that she might get caught. She has absolutely no internalized system of right and wrong.

It does not seem to me that this fact, taken by itself, implies that dogs are "smarter" than cats. Cats live within human society as successfully as dogs, which is in the end the only way (pragmatically) to measure global activity between species. The difference rather is a result of the different social structures of canine and feline groups in the wild. Canines are, like humans, pack animals.[39] They live in cooperative groups of adults who hunt together and work together to raise the puppies of the alpha pair. In this situation it is often necessary to the survival of the pack that an individual behave in an altruistic fashion. Therefore, canines have evolved a sense of right and wrong. Felines, on the other hand, tend to be solitary as adults.[40] At most a few related females may remain together after kittenhood. Consequently, altruism is unnecessary and morals have not evolved among felines.

This evolutionary distinction does not seem great enough to warrant making dogs persons while excluding cats. Cats have merely followed a different evolutionary path than dogs. One

can imagine (and indeed science fiction stories have been written to propose) a race of intelligent felines with a solitary lifestyle in adulthood. Such intelligent cats, it seems to me, would be persons, even though amoral. If it is argued that cats could never have a culture precisely *because* they are not social, I am still left, by this formulation of person, with the resulting implication: my dog is a person, at least to some extent, but my friend who has suffered frontal lobe brain damage is not. This seems clearly wrong-headed.

It has been argued that personhood is simply the kind of thing that is predicated only of humans.[41] Such an argument is either engaging in very thinly hidden speciesism (that is, if you are similar enough to me, I will grant you the status of person) or merely arguing in a circle (that is, only humans are persons because only humans can be defined as being persons). Neither approach is acceptable.

Even if we change the formulation of "person" slightly, this is still the case. One might argue that persons are entities who should be treated as ends rather than as means. If we therefore argue that only humans are treated as ends, and only those entities which are treated as ends are persons, so only humans are persons, we have again begged the question by assuming the very issue at question.

Alternatively, we might change the argument to something like the Catholic church's argument against abortion.[42] Humans are creatures with souls. Only creatures with souls are treated as ends. Creatures treated as ends are persons. Therefore, only humans are persons. Again, we are arguing from definition. Until some objective test for discovering souls is developed, no such argument can be other than analytically true, and such an argument cannot form a part of medical science and, therefore, of medical ethics.

Thus, the Kantian approach to defining "person" is also unsuccessful. Either it is circular, or it is unable to differentiate "persons" and "non-persons" unambiguously.

The third approach that I wish to consider is that of a social definition of "person." Deriving as it does from a social contract theory of society, it owes a certain amount to

Hobbes[43] but is best seen in the work of the contemporary philosopher H. T. Engelhardt.[44] Engelhardt has given up on trying to find some ontological aspect of an entity that can be used to define "person" and, borrowing from legal practice, has invented the category of "social person." A slightly different form of this would be to assert that personhood *is* nothing but a social construct, having no ontological reality.[45] In either form, the question becomes, not how do we define "person," but rather what formulation of "person" has the greatest utility.

If this approach assumes that there is something like natural law from which the social contract derives, we would be able to link the notion of social person to something in the natural world. However, in this case there is no way of determining what is to count as a person, since no agreement exists as to what these natural laws, rights, or contracts might consist of. This approach is forced to assume something like an instinct of benevolence. We have seen that this idea is supportable as an evolutionary part of human nature, but it says nothing about what *should* be the case and merely describes what *is* the case with regard to the human sense of "in-group."

Alternatively, we can view social contracts as entirely arbitrary inventions of human culture. In this case the criterion for "person" is that of utility, namely, what way of defining person most benefits the society as a whole? Fairly good arguments can be developed to show that utility is maximized in certain situations by categorizing some subgroup, defined perhaps by race, gender, or economic situation, as not quite persons. Thus one could claim that the institution of slavery in preindustrial societies was necessary if certain classes of important but disagreeable work were to get done. Likewise, apartheid in South Africa is often justified by the argument that everyone, white or black, is better governed if blacks are denied full status. It seems clear that a principle that would allow us to exclude whole subcategories of humans from the classification of "person" merely because of expediency is not ethically sound.

To avoid this problem, a "slippery slope" argument is often invoked. Thus, while we could logically exclude some

subgroups to maximize immediate utility, when the longer view is taken, we would see that such behavior would cause a loss of concern for others, which would ultimately damage society.

There are two difficulties with this response. First, as we all know, a slippery slope argument is an informal fallacy. Also, as Williams points out, actual experience fails to confirm the sorts of effects postulated by this slippery slope, at least in the United States.[46] Second, why would a lack of concern for entities socially defined as subhuman have a different effect from a lack of concern for animals?[47] If cruelty to one's slave will coarsen one's moral fiber, it would seem that cruelty to one's animals would have the same effect. This again results in an inability to critically determine an ethical difference between human and nonhuman.

The fourth and last approach to defining "person" that I will consider is one that is most often resorted to when all else has failed. In its crudest form, it consists of asserting that "person" and "human" are coterminous in reference: anything that looks like a person is one, and nothing else is. A sophisticated form of this is Strawson's position that a person is the combination of a human form and mind.[48]

We have already seen that using an attribute of mind as the critical defining characteristic for "person" does not serve the purposes of medical ethics, and so we need not consider this position further. The addition of a human body seems merely another example of speciesism and begging the question:

> "How do you know whether the entity in front of you is a person?"
>
> "Well, does it look like a person?"
>
> "What does a person look like?"
>
> "A person [by definition] looks like a human being."

This begs the question as much when applied to the human shape as when applied to the human soul. It seems, therefore, that "looking like a human" is not an adequate criterion. For example, in a recent TV program, "Star Trek: The Second Generation," the issue of whether a manufactured android was a person was considered as a serious question. Looking human is clearly not enough.

A crude version of this position, which ironically is often the view of my students—before I confuse them with philsophy—is that a person is someone with human DNA. This formulation still does not provide an unambiguous criterion because "having human DNA" is not itself without problems of definition. At the most obvious level, neither a single cell with human DNA nor even a coherent group of cells can be a person. Otherwise, an appendectomy would be murder. Obviously, what must be meant here by "having DNA" is "an entity that has human DNA and is capable of individual survival."

But what is human DNA? Is it confined to *homo sapiens sapiens*? *Homo sapiens neanderthalis* appears to me to be fairly personlike.[49] But, if we allow *neanderthalis*, why not include *homo erectus* and so forth down to some apelike prehuman like *rama pithecus*? We are back to trying to find some trait that will allow us unambiguously to draw the line between human and nonhuman. If we have learned anything in this century of paleoanthropology, it is that no such unambiguous criteria exist. Attempts to place the line beyond the species boundary only extends the problem into the problems of evolution and species formation.[50] The probability is quite good that *homo sapiens sapiens* and chimpanzees could interbreed,[51] thus setting up a continuum divided not by genetic characteristics but by ecology and time.

Likewise, do individuals with Down's Syndrome have human DNA? Every single one of their cells is abnormal.[52] Are they therefore not persons? Having known a number of individuals with Down's Syndrome, this conclusion seems absurd to me. How normal does DNA have to be in order to be that of a person? Clearly, criteria that exclude the merely physically, genetically handicapped cannot be supported, but what other criteria can be put forth if "looking human" is what is meant by "person"?

In addition, we do not want to exclude aliens from another planet, at present hypothetical but plausible beings, who would surely neither look human (unless parallel evolution is much more parallel than seems likely) nor have human DNA.

Now, after considerable journeying, we are back at our

starting point, sure that it is necessary for medical ethics that we be able to recognize persons but still with no criteria that will allow us to do so. It thus seems clear to me that there is some basic problem with the way "person" has been dealt with in philosophy. I suspect that it is a dim awareness of this that makes my students reject all of the ideas about persons that they are offered and fall back on their original view that "human" and "person" are equivalent.

As we examined proposed ways of recognizing or defining "person," we found a consistent pattern. Virtually every approach ended either in begging the question or in being unable to draw a clear line between person and non-person. I believe this is because we are trying to force the natural world into a two-stated system that is ontologically incorrect. There are not two mutually exclusive categories "person" and "non-person." Rather, there is a continuum that starts with inanimate objects, which are in no sense persons and towards which we have no moral duties, that moves through various levels of personhood, such as that exhibited by first mammals and then primates, and that finally reaches the level of fully functional, adult human beings, who are certainly persons. Attempts by thinkers like Fletcher[53] to provide an operational definition by use of a "checklist" don't work well within an "off-on" system because there is no way to combine a number of variables in a binary system and because it is not clear which traits are necessary but not sufficient or visa versa. Nevertheless, such an approach works quite well when the phenomena in question are distributed on a continuum, and indeed this is a standard method for defining many syndromes of this sort in medicine.[54]

Thus, we can take all of the approaches that we have considered and by weighting them come up with a "person value" for any entity in question. As an example, let us consider the often-discussed question of the moral status of a fetus with reference to abortion. Our usual intuition is that, as the fetus develops, abortion becomes progressively less acceptable. The embryo has virtually no mental traits that are characteristics of a person: it cannot speak, reason, or

experience empathy, and it is not self-aware. It cannot be praised or blamed. But it does have human DNA, and it may or may not have a part in a social system, depending on the circumstances of its conception. It certainly doesn't look like a person. Thus, the embryo has a limited person-level and our duties toward it are fairly low. A genetically flawed embryo is even less a person, since its DNA is less human. If the mother planned to get pregnant, then the embryo may have some social personhood, be a little more of a person, and be owed a little more duty. This also quite neatly introduces the mother's actions as an aspect of her duties. A canine embryo, on the other hand, seems in no sense to be a person; and, indeed, I have never heard anyone object to aborting a dog.

As a human embryo develops, its capacity for mental activity increases, as does its social relationship to the mother. At six months, a fetus is capable of learning. It looks fairly human. And, I'm told, it is difficult for the mother of a sixth-month fetus to have no social relationship with it. Thus, a sixth-month fetus is more of a person than an embryo. Likewise, a neonate has still more personhood, since both its abilities and its social level have increased. Consequently, a late abortion requires more justification than an early abortion.

The point at which a human infant is more of a person than a domestic animal will, of course, depend on how you choose to weight the various factors. However, by age three or four, a human child is more of a person than the cleverest dog or cat. At this point our duties to a human child are so extensive that we no longer use the specialized term "infanticide" and switch to the term "murder."

It seems clear to me that the same is the case for the lower (extinct) humanoids and the talking great apes. I find it interesting, although of course not conclusive, that Dian Fossey, who studied gorillas extensively in the wild, used the term "murder" to describe the killing of an adult gorilla.[55] It does not seem to me that she was using the term metaphorically. Likewise, it seems to me that medical research using chimpanzees and gorillas is on very shaky ground ethically.

On the other hand, a severely retarded member of the species *homo sapiens sapiens*, one who is not capable of any speech or social behavior, is less person-like than a dog or cat. The only aspects that suggest personhood in this case of serious retardation are human DNA and, to some extent, resemblance to human beings. A dog has some symbolic ability, can be praised or blamed, and definitely exhibits some social activities. She lacks only human DNA and physical resemblance.

After what I fear has been a rather long inquiry into why previous approaches to defining "person" have not succeeded, I hope this brief sketch shows why I feel that an approach based on a continuum developed by the use of a weighted "checklist" is more likely to succeed. I feel that it is possible in this way to deal with virtually all of the problems in recognizing persons that have beset medical ethics and to develop a system that corresponds to our ethical intuitions.

NOTES

[1]René Descartes, *Discourse de la Methode* (Paris: Librarie Larousse, n.d.) 55.

[2]For example, see: Mary Anne Warren, "On the Moral and Legal Status of Abortion, with a Postscript on Infanticide," in *Bioethics*, ed. Rem B. Edwards and Glenn C. Graber (New York: Harcourt, 1980) 585; Susan K. Langer,"The Language User," in *Philosophy and the Human Condition*, ed. Tom Beauchamp, Joel Feinberg, and James M. Smith (Englewood Cliffs: Prentice-Hall, 1989) 121-22; and H. H. Price, "Our Evidence for the Existence of Other Minds," *Philosophy* 13 (1938): 425-56.

[3]R. Allen Gardner and Beatrice T. Gardner, "Two-way Communication with an Infant Chimpanzee," in *Behavior in Non-Human Primates*, vol. 4, ed. A. M. Schrier and F. Stollnitz (New York: Academic, 1971); James Premack and David Premack, "Teaching Language to an Ape," *Scientific American*

230 (October 1972): 92-99; Francine Patterson, *Koko's Kitten* (New York: Scholastic, 1985).

[4]B. F. Skinner, *Recent Issues in the Analysis of Behavior* (Columbus: Merrill, 1989) 69-84.

[5]A. M. Turing, "Computing Machinery and Intelligence," in *Minds and Machines*, ed. A. Anderson (Englewood Cliffs, NJ: Prentice-Hall, 1964) 4-30.

[6]I am indebted for this information to Frederick Tart, W. J. Schaffer, and Associates, Albuquerque, NM.

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