Abortion: is the fetus human?

by Rochelle Forrester

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Preface

This paper addresses the question of whether the fetus is human and its effect on the abortion debate. It investigates the concept of "human" and asks whether the concept of human has an essence or is best understood by the idea of family resemblance. It asks whether DNA is the essence of humanity and concludes that it is not and that humanity is best understood using family resemblance involving a range of attributes common to humans. It concludes the fetus does not have the range of attributes that would make it human.

The world-wide debate about the ethical status of abortion has largely been conducted on the assumption that the fetus is human due to its DNA and that at some point in time the fetus becomes a living human being. The fetus can be considered to be a living human at any time between conception and birth with some considering the fetus as a living human at fertilization, implantation, segmentation, the beginning of a beating heart, neuromaturation, the start of fetal movement, the time when the fetus can feel pain or is capable of cognition or can live outside the womb or is born. There has been much debate as to which of these stages in fetal development can be considered to be the start of human life. The debate usually assumes the fetus is human from the start and the question is when life begins. The question, however, is not just when life begins, but whether the fetus is human or not human. It must satisfy both criteria in order to obtain protection as a human being. The assumption that the fetus is human is usually based on the fact that the fetus has the

same DNA as postnatal human beings. But why should DNA determine what is a human being and what is not a human being?

Those opposed to abortion often assume that there is an essence to being human, something that we have, which if it was taken away from us, we would cease to be human. They assume the essence of being human is the sequence of DNA that is unique to humans. But the great majority of the DNA is also shared with many other species. Only the particular sequence is unique to the human species.

There are however many characteristics unique to the human species and any one of them could be considered to be the essence of humanity. A certain level of rationality, language and culture could be considered to have as good a claim as DNA to be the essence of humanity. If any one of these was considered to be the essence of humanity, then a fetus would not be considered human as a fetus does not have language or culture and would hardly be considered to be rational. Why should we prefer DNA as the basis for deciding what is human and what isn't. It is possible to come up with many other ways in which humans are different from other species. Why do we focus on the DNA and not on the many other ways humans are different from other species?

DNA is a molecule that contains the genetic instructions used in the growth of all living organisms. DNA is what causes us to go through certain physical changes, but it does not make us human by definition. There are two different meanings to the word "make". One meaning relates to the process of development or creation for example your make something. This is a verb, a doing word or action word. The second concerns what makes us a member of a group by definition, which is a noun, a naming word, for example it is what defines us as what we are or as a member of a group. DNA certainly contains the instructions that cause us to grow and develop in a certain way, but it does not decide that we are human by definition. That which causes us to have certain characteristics, for example DNA, does not determine whether we are a member of a particular group. DNA is like the instructions in a manual of how to put together a bookcase, but the instructions of how to put a bookcase together do not define what a bookcase is. The physical process of creation is a quite different thing from the intellectual question of whether or not you are a member of a group. DNA does not make us human. It makes proteins and causes us to grow and go through a physical process of development. These are purely physical events not at all related to the intellectual question of what we mean by the word "human".

What is it that defines us by species, if it is not DNA? Ludwig Wittgenstein suggested the best way to understand many concepts such as

being “human” is through the idea of family resemblance. Family resemblance considers that an idea such as human applies when there are a large number of items with many features in common so they can all be considered to be members of the same family. About the only things a human and a fetus have in common is DNA and they are both made up of atoms and cells and they are alive and growing. A cat is alive and growing, made up of atoms and cells and has a lot of DNA in common with humans although not as much DNA in common with humans as a fetus does. However a cat has a great number of other features in common with humans that a fetus does not have. Yet despite the many features a cat has with humans, it is plainly not human so why should a fetus which has much less in common with humans be regarded as human?

If I compare a human, a cat, a plant and a fetus I will find out a human has far more in common with a cat, than with a fetus. A cat, to some extent lives in the same world we live in, it sees and hears much of what we see and hear. We can observe its reactions and it can observe ours and there is at least a partial understanding of what is going on between us. If there is a loud noise and the cat runs off, as it often does with loud unexpected noises, I know it is the loud noise that has scared it.

Cats have brains similar to those in humans. They both have cerebral cortices with similar lobes and both have surface folding and are divided into different areas for carrying out different tasks. The different areas in both cats and humans have many connections and share information in order to create a complex view of the world enabling cats and people to react to and manipulate their environments. Cats brains have areas such as the neocortex, the thalamus, hippocampus, the amygdala, frontal lobes, the corpus callosum, anterior commissure, pineal gland, caudate septal nuclei and the midbrain all of which are also part of the human brain. Cats have memories good enough to enable them to adapt to new environments by using memories of past environments. Memories and learning abilities decline with old age in cats just as it does with humans. Cats have dreams while sleeping just as humans do.

Cats bodies function in a similar way to human bodies, as they eat, drink and breath in a similar manner to humans. They have similar organs such as hearts, kidneys and livers as humans. Their hearts pump blood carrying nutrients to the various different parts of their bodies, just as human hearts do. They take in food and drink and excrete waste products in solid, liquid and gaseous forms just as we do. Cats suffer from many of the same diseases we have, such as cancer, diabetes and rabies, and suffer upper respiratory diseases caused by viruses and bacteria just as we do.

This is hardly surprising as their bodies work in a similar fashion to our own.

If I compare a fetus, say a few weeks after conception, to me I seem to have little in common with it. It not only doesn't live in my world, it doesn't live in any world, as it has no nervous system and no brain. It has no awareness of anything, it doesn't even know it exists. If the fetus existence ends early on in the pregnancy, it won't miss anything as it was not aware of anything. Obviously this changes as time goes by, but at least early on the fetus has much more in common with a plant than with a human being.

Embryos in a wide variety of species are quite similar to each other, due to their possession of *homologous* structures, which have the same or similar functions and mechanisms across a wide range of species. This means a fetus, in the embryonic stage, the first eight weeks after fertilisation, has more in common with the fetus of a dog, an elephant or a whale than with a postnatal human.

Over time the fetus develops and organs such as the brain, heart, kidneys and liver are formed. But they are still developing and do not operate in the way in which human and cat organs operate as the fetus is still in the womb. If the fetus was not in the womb it would not be able to survive as its organs would be inadequately developed for survival outside the womb. Even after the fetus has developed organs it is nowhere near as sophisticated or developed as a non human animal such as a cat. Its level of development can be considered to be somewhere between a plant and a non human animal.

If I was to make a list of the things I have in common with a cat the list would be quite long, while if I made a list of the things have in common with a fetus probably the list would be quite short, basically a similarity in DNA and we are both made of atoms and cells, and are alive and growing. But then plants are made of atoms and cells and are alive and growing, so only the DNA would be significant. There seems to be no reason to regard DNA as the essence of what it is to be human.

We use separate words for seeds and plants because they are clearly different things and we use words like fetus and human as they are clearly different things. The seed may become a plant and the fetus may become a human, but seeds are not plants and a fetus is not a human. It may become a human, but it is not a human.

There are a number of thought experiments that could be seen as relevant to a definition of "human". Imagine a being with human DNA but quite unlike us. A brain dead person with blood being pumped through him or her by a machine would be quite unlike a normal human but would still have human DNA. If there was no chance of the person

recovering consciousness we would normally turn of the machine which suggests even though the person has human DNA there is no point in trying to keep the body supplied with nutrients.

Imagine a being that is very like a human but with no human DNA, such as a robot human like in the TV programme Humans, or Star Trek or Star Wars aliens who are as intelligent and as logical as we are, surely we would need to give them full rights equal to humans. This shows the utter irrelevance of DNA. It is not DNA that matters but having a brain and emotions comparable to human beings. A cat or other similar mammal is definitely not human and yet has intelligence and emotions far closer to those of humans than a fetus has at anytime in its development.

The other question is whether it is even membership of a group, such as humans, that should provide the basis for laws limiting abortion. Such laws limit human freedom so there should be a good reason for the existence of laws limiting rights to abortion. It may be that such laws should only exist to protect beings with certain characteristics such as intelligence, emotions and other desirable traits. This would allow the protection of human like robots, Wookies and various intelligent Star Trek like aliens. I don't know whether we will find Wookies or Star Trek like aliens in the future but we will almost certainly have human like robots. Such laws will obviously not cover a fetus as it obviously does not have characteristics such as emotions and intelligent.

Why do we want to find out if something is human or not? In the context of the abortion debate it is to see whether it merits protection from the law. In other contexts there will be different considerations, but family resemblance is the appropriate basis for classification in the context of the abortion debate. The fetus has no characteristics that would suggest it should have protection by the law. A much better case could be made for the protection of many non human animals.

The controversy over abortion is largely caused by a misunderstanding of the multiple meanings of the word "made". It is a simple case of a word having two meanings and of people failing to distinguish between the two meanings. Some people make the mistake of thinking that the instructions for the creation of something in a physical sense gives membership of a group when, whether something is a member of a group is simply an intellectual question. We should stop giving DNA a power it does not have. DNA does not make us human, it simply makes proteins and causes certain physical things to happen within our bodies. To claim DNA makes us human is to give it magical qualities it does not have. The fetus is not human according to any reasonably definition of human.

The author acknowledges the work of Mary Anne Warren in "*On the Moral and Legal Status of Abortion*" (The Monist, Vol 57, No 4, 1973) in which she discusses similar issues and reaches the same conclusion which is reached in this paper, but by a different process than is used in this paper.