

## PHIL 50 – INTRODUCTION TO LOGIC

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HOMEWORK – WEEK #1 – DUE MONDAY APRIL 7TH, 2014 AT THE BEGINNING OF CLASS

### 1 PASTA [30 POINTS]

Making a pasta dish is relatively easy. You buy a box of pasta; you heat the water; when the water boils, you add the pasta and wait until cooked. While you wait for the water to boil and the pasta to cook, you prepare a sauce. When the pasta and the sauce are ready, you mix them together.

In class, we've seen that seemingly simple tasks, such as cracking an egg, are in fact rather complex. Suppose you want to tell a computer—which has no common-sense and knows nothing about the world—how to make a pasta dish. Write the most excruciatingly detailed series of instructions which leave (almost) nothing unsaid. *Once you fill up half a page, single-spaced, you may stop.* The goal is to write instructions which are so detailed that half a page won't be enough to describe how to pick up the box of pasta.

### 2 NEWBORNS [35 POINTS]

Please read the following quotation from a controversial article on the killing of a new born:

... The moral status of an infant is equivalent to that of a fetus in the sense that both lack those properties that justify the attribution of a right to life to an individual.

Both a fetus and a newborn certainly are human beings and potential persons, but neither is a person in the sense of subject of a moral right to life. We take person to mean an individual who is capable of attributing to her own existence some (at least) basic value such that being deprived of this existence represents a loss to her. This means that many non-human animals and mentally retarded human individuals are persons, but that all the individuals who are not in the condition of attributing any value to their own existence are not persons. Merely being human is not in itself a reason for ascribing someone a right to life. Indeed, many humans are not considered subjects of a right to life: spare embryos where research on embryo stem cells is permitted, fetuses where abortion is permitted, criminals where capital punishment is legal.

Our point here is that, although it is hard to exactly determine when a subject starts or ceases to be a person, a necessary condition for a subject to have a right to X is that she is harmed by a decision to deprive her of X. There are many ways in which an individual can be harmed, and not all of them require that she values or is even aware of what she is deprived of. A person might be harmed when someone steals from her the winning lottery ticket even if she will never find out that her ticket was the winning one. Or a person might be harmed if something were done to her at the stage of fetus which affects for the worse her quality of life as a person (eg, her mother took drugs during pregnancy), even if she is not aware of it. However, in such cases we are talking about a person who is at least in the condition to value the different situation she would have found herself in if she had not been harmed. And such a condition depends on the level of her mental development, which in turn determines whether or not she is a person.

Those who are only capable of experiencing pain and pleasure (like perhaps fetuses and certainly newborns) have a right not to be inflicted pain. If, in addition to experiencing pain and pleasure, an individual is capable of making any aims (like actual human and non-human persons), she is harmed if she is prevented from accomplishing her aims by being killed. Now, hardly can a newborn be said to have aims, as the future we imagine for it is merely a projection of our minds on its potential lives. It might start having expectations and develop a minimum

level of self-awareness at a very early stage, but not in the first days or few weeks after birth. On the other hand, not only aims but also well-developed plans are concepts that certainly apply to those people (parents, siblings, society) who could be negatively or positively affected by the birth of that child. Therefore, the rights and interests of the actual people involved should represent the prevailing consideration in a decision about abortion and after-birth abortion.

It is true that a particular moral status can be attached to a non-person by virtue of the value an actual person (eg, the mother) attributes to it. However, this subjective account of the moral status of a newborn does not debunk our previous argument. Let us imagine that a woman is pregnant with two identical twins who are affected by genetic disorders. In order to cure one of the embryos the woman is given the option to use the other twin to develop a therapy. If she agrees, she attributes to the first embryo the status of future child and to the other one the status of a mere means to cure the future child. However, the different moral status does not spring from the fact that the first one is a person and the other is not, which would be nonsense, given that they are identical. Rather, the different moral statuses only depends on the particular value the woman projects on them. However, such a projection is exactly what does not occur when a newborn becomes a burden to its family.

(From Giubilini-Minerva, *After-birth abortion: why should the baby live?*, Journal of Medical Ethics, 2012)

Please do the following:

- (a) Summarize the argument briefly—i.e. identify what’s essential and what’s inessential—and divide it up in premises and conclusion(s).
- (b) Is it a deductive argument, inductive argument, or neither?
- (c) Do you think the argument is deductively or inductively valid?

### 3 COLORS, 1’S AND 0’S [35 POINTS]

Draw a table with 4 rows and 9 columns. Please color each cell in the table and assign a 0 or a 1 to each cell. Make sure you satisfy the three constraints below:

- (C1) For any cell  $c$  in a given column, there is exactly one other cell  $c'$  in another column such that  $c$  and  $c'$  are filled with the same color. (NB: the expression ‘exactly one’ means ‘at least one and at most one.’) Whenever two cells  $c$  and  $c'$  are colored with the same color, we shall call them *twin cells*.
- (C2) Each column has exactly one cell to which the numbers 1 is assigned.
- (C3) Twin cells must be assigned either both 1’s or both 0’s.

If you think that the above coloring and numbering task cannot be done, explain—as precisely as you can—why it cannot be done. Can at least (C1) and (C2) be satisfied? Explain your answer.