

The meaning of "person"

SIR — John Godfrey (*Nature* 373, 100; 1995) seems to admit the possibility of an "infusion of the soul". But in the next sentence, he implicitly equates the human person with the gradually evolving body. The possibility of the human person being an incarnated soul is silently dismissed. It is only the body and not the person or individuality that is seen to come "into being by continuous progression during ontogeny". If a pre-existing soul (in the Platonic sense) makes up the core of human individuality, and gradually takes possession of the evolving body, that individuality cannot be said to come into being in a continuous way, although its (new) body does.

Moreover, Godfrey states without any kind of proof that the gradual character of human ontogeny implies a gradual growth of the rights of the individual. Even from a purely materialistic viewpoint, there is no logically compelling reason why this implication should hold. Does the gradual rising of water level logically imply gradualness of the consequent inundation? Of course not: the same lump of reality can have both gradual and discontinuous aspects. Moreover, the argument is not only flawed but also antihuman. Adult members of our species are endowed with several biological characteristics such as a fully erect stance, tool fabrication and language. None of these capacities is already present in the newborn human; they evolve gradually after birth. Does it follow that newborn humans have a diminished right to live? Of course not. The simple truth is that biological systems as such never have rights, just as colours as such never have weight.

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SIR — Godfrey states that the "fundamental biological and ethical issue" (*sic*) raised by Pope John Paul II in his book *Crossing the Threshold of Hope* is "the origin of an individual person during life before birth". He furthermore states that "there is no moment when human life starts" and, further on, that "it is understandable that ethical thinking should have been founded on obsolete biology".

In his book, Pope John Paul II does not explicitly state what he regards as the fundamental biological and ethical issues in human reproductive biology, but he did write: "the concept of 'person' is not only a marvelous theory; it is at the center of the human ethos"; and, in another paragraph, "in this field more than in any other, collaboration among pastors, biologists and physicians is indispensable". Godfrey combines these two passages into a single quotation although the

two statements by the Pope were made in different contexts.

The programme for development as a human being with personhood is set in motion at the beginning of the fertilization process. The events that may potentially follow the union of end-cell gametes might not have occurred had the initial event in the fertilization process not been successful.

It is difficult to understand how Godfrey defines person. He seems to say that a person is someone who has characteristics conferred by the complete expression of her/his entire genetic endowment. If that were the situation, it seems unlikely that any person would survive long enough to attain reproductive age and that would settle the issue once and for ever.

To justify his view of why there can be no such thing as person during embryogenesis, Godfrey recounts the complexities of the fertilization process, which may take several days for completion.

These events include (with a few of my own added) the activation of the ovum, chromosomal events, maternal influences, expression of paternal genes, the possibilities of twinning and entry of genetically foreign cells, organogenesis including neurogenesis, birth and the acquisition of language. This sequence of events is indeed, according to Godfrey, a "seamless change". But this is irrelevant to an understanding of what the Pope said.

Hopefully, the concept of person as expressed by Pope John Paul II will remain at the centre of the human ethos. We must not be distracted by obscurantism and the many straw-men placed here and there to guard the windows of opportunity for human embryo manipulation. Let us hope that ethical thinking may survive in the milieu of contemporary biology.

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SIR — Godfrey offers a convincing example of the incapacity of biology to represent a reference point for ethical issues. As a biologist, Godfrey states that "there is no moment when human life starts", . . . "life is continuous from one generation to the next", . . . "the picture of the nascent human which emerges from modern embryology is one of seamless change." Biology is clearly not able to establish the frontiers of life. (It is not uncommon that an expert in a field finds serious difficulties in defining his science.)

So we have to look elsewhere for more solid foundations of ethics. Empirical knowledge and good sense (*Epikēia*) give us sufficient arguments for significant statements. They teach us that when a man and woman couple, there is a high probability that the woman becomes pregnant. Nine months later a baby will be born, who will grow to be an adult. Something new surely happened after (or during) the coupling and originated something/somebody that did not exist before. That act is necessary for a new human being to be born. From then on, all that concerns the result of coupling has to do with the life of a potential person. (Of course, at this stage, he is not a person, nor is a newly born baby a person.) Therefore, and notwithstanding he is not a person in a technical sense, he has some rights, the first of which is to life. The conclusion of Godfrey from the state of his art ("the rights of, and our duty towards, the unborn must grow gradually") is hazy and ambiguous, and may lead to arbitrary behaviour.

The Commentary offers also a good example of the troubles into which a scientist falls when he tries to derive ethical issues or philosophical conclusions from the results of his researches. A scientist, lacking the sense of complexity of reality, often tends to extrapolate his results, which are valid for a given limited field, to all of reality, without considering the other sciences. It is already difficult to study irreversible transformations in dynamical systems, as from melt to solid: how much more the emergence of a new human life. A human being, even unborn, is not just an assemblage of living cells, but something other too, and other disciplines (philosophy, sociology and so on) have to be involved when studying human behaviour and discussing ethical issues.

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DNA evidence

SIR — In 1987, Andrew Deen was convicted of rape largely as a result of DNA evidence.

On 21 December 1993, the Court of Appeal in London ordered a retrial after hearing evidence from the defence (see *Nature* 367, 101–2; 1994). The implications of the retrial were widely reported and discussed in *Nature* (D. J. Balding & P. Donnelly 368, 285–286; 1994) and by the press. However, at the Liverpool Crown Court on 26 April 1995, the DNA evidence was accepted without question by the defence and Deen pleaded guilty.

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