

Viewpoint

Let science be our ontological guide. A comment on Christian Erk's reply

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In a previously published paper [1], I defended the thesis that the embryo is not a person, but a potential one, quoting Aquinas several times. This prompted a reply from Christian Erk, recently published in the same journal [2], where the author denies that for Aquinas any human being can be a potential person, because the expression 'potential person' is a *contradictio in adjecto*. However, as Erk has seen, our disagreement does not merely pertain to a matter of historical interpretation, but has substantial content. This is the reason why I think it important to comment on his reply. My comment will consist of two parts. First, I will briefly show that 'potential person' is not such a contradiction from Aquinas' point of view, and second I will try to demonstrate that the "ontological personalism" Erk contrasts with my position, labelled "empirical functionalism", does not do justice to modern and contemporary scientific results. Moreover, my position is not devoid of any ontological dimension.

Aquinas does not use the expression 'potential person' (*concedo*), is the concept therefore incompatible with his philosophical view? I do not think it is (*nego*). Erk acknowledges that Aquinas "believe[d] that the embryo's and thus man's soul gradually develops from a vegetative, to a sensitive and then to a rational, i.e. human, soul" [2, p. 107]. The same physical entity or matter can

receive successively three different forms or souls. We can express this by saying that such an entity passes through three different stages: vegetative (v-stage), sensitive (s-stage) and rational (r-stage). The r-stage cannot come from any s-stage: it must be a *human* s-stage (because no other animal embryo, that is an entity in the s-stage, will ever evolve into a human r-stage), as glass cannot come from any mineral but sand, which can be said to be potential glass.¹ Therefore it seems perfectly correct to claim that, in such a view, an embryo can be said to be a potential person (that is, a human s-stage can be said to be a potential human r-stage). A human s-stage possesses in itself a nature or a form that authorizes a later reception of a 'rational soul'.

However, quoting Breuer, Erk claims that "the scientific basis for Aquinas' position and the theory of successive animation is outdated and untenable" [2, p. 107]. I agree and confess that Erk has a point against my argumentation in [1]. If we add contemporary biology to Thomism and link rational nature (soul or form) to DNA, the notion of potential person has no sense, except perhaps for gametes.

¹ This is only a weak analogy for the purpose of illustration, because sand is not a living material.

I agree and confess, but I immediately add a caveat: if we really want to keep “to the biological scientific state of the art of [our] time” [2, p. 107], we must reject the whole hylomorphic conception and then the Thomistic approach, updated or not.

This debate has taken place already in the 17th century and one of its masterpieces is Robert Boyle’s *The Origin of Forms and Qualities* [3]. I examined it some time ago [4, chap. 1], but, in a nutshell, his argument is that in order to understand natural phenomena, we must substitute the hylomorphic view with an approach that studies the various properties of natural beings (their first and second qualities). This substitution has prompted the entire scientific progress, as we all know. Hylomorphism is consequently a research programme that has degenerated for long – to borrow an expression from Imre Lakatos [5]; it has even been falsified according to Boyle – to borrow an expression from Karl Popper [5, chap. 1]. Could it be hijacked by philosophy or ontology? Some authors think that it could and should: in parallel with natural science, we have philosophy, each with its own methods and concepts. To my mind, such an attempt is a dead end. Aristotle proposed an analysis of our natural world taken up by Aquinas: it was a scientific enterprise in the sense we give now to this word, and finally, like all scientific enterprises, it has come to an end. It therefore makes no sense to rescue it as a philosophical enterprise, especially for a philosophical view that wants to take scientific results seriously. Of course, science and philosophy are different disciplines, but, as ontology is concerned, their difference consists mainly in the level of abstraction. Ontology is more abstract and studies the most general categories of reality like substance and properties, actuality and dispositionality. Due to its abstract character, its job is mainly conceptual and can function as a conceptual map for natural sciences. Hylomorphism is not that abstract, and it is precisely for this reason that it has been possible to falsify it.

These reflections have led us far from the question of the embryo’s moral status. Let us now return to it and see what consequences the demise of hylomorphism has for it.

If no living being is a compound of matter and soul, then an embryo is not. So, what is it? A being of a certain kind with specific properties. In Aristotelian words, he is a substance with certain accidents – a true ontological distinction that, for good reasons, has survived hylomorphism. Rationality is not a property a human embryo possesses in the sense that it has no rational activity of any kind, but it will have it later. However, is not this “capacity [...] a symptom of man’s substantial being”? [2, p. 109] Or, as I would say, a disposition that is linked to the nature of the embryo, as brittleness is linked to the nature of glass? The dispositionalist thesis I have defended answers this question negatively, because rationality has the same ontological status as virtues and acquired skills: its existence does not get

ahead of its first manifestation [1, p. 78-79]. I didn’t give a thorough justification of that claim, but only objected to capabilitism in mentioning the existence of twins. It is now necessary to do more.

The brittleness of glass stands on a property of glass (a basis property) that is tied to its molecular structure. Structure determines function, actual and dispositional. The structure/function relation is the offspring of the matter/form one, and it is no surprise that many scholars have pointed out that the former has an Aristotelian flavour [7, p. 48], the *Stanford Encyclopedia of Philosophy* claiming even that functionalism “is rooted in Aristotle’s conception of the soul” [8]. However, the big difference between form and function is that Aristotle and Aquinas thought that the former is set once and for all,² whereas modern biology thinks that functions (in the plural, because they are many) evolve following the structure’s changes.³ Therefore a human being acquires new capacities through changes in structure, and we can follow structural changes by observing the emergence of new functions or capacities. However, is not the genetic code set? Not completely, but for most parts it is. Therefore, how could it be justified to deny that, in Thomistic terms, “all human beings get to have a rational soul at the moment of conception, i.e. once a new human genome has been constituted” [2, p. 107]? ‘Having a rational soul’, for me, is being a person.

A first answer consists in the fact that possessing a human genome is neither necessary nor sufficient to function as a rational being. It is not necessary, because artificial intelligence programmes show that certain devices manifest rationality and because – in the Boëthian-Thomistic tradition at least – God and angels have a rational nature, too. And it is not sufficient because every human cell possesses a human genome and a lot of them could even be reprogrammed – notably the iPS cells – to develop into whole human organisms [9] [10].

This last observation prompts a second answer. Embryos are special entities in the sense that they develop at a very fundamental level, acquiring new properties and new capacities from their own intrinsic development, but also in an essential dependence on their environment. This fact has led Alex Mauron and myself to claim that the embryo’s moral status cannot be determined only through its intrinsic properties and structure (i.e. its human genome) but also through its relational ones [9, p. 101–102]. The developmental nature of the embryo also means that, due to the deep changes in its

2 Substantial forms like souls, and not accidental ones like qualities, of course. Notice also that there exist other important differences: structure is not matter, but matter *and* form, and function is not form, but disposition or exercise. Functionalism is not hylomorphism rejuvenated.

3 The dependence of functions on structure and their common birth implies that we can consider both equally as bearers of value. Formally speaking the bearer is function, materially it is structure. Cf. [2, p. 108-109].

structure, the embryo's capacities supervene successively on it, as true *new* capacities, inducing a change in moral status – in Thomistic terms if not in spirit: passing through different stages, vegetative (v-stage), sensitive (s-stage) and rational (r-stage), the last, and only the last, conferring on the embryo or on the infant a rational nature or the moral status of a person.

The advent of personhood takes time; to be human is therefore not sufficient to be a person, because the somatic structure necessary for being a person (i.e. to function as a person) is not present from conception. Consequently, human embryos spontaneously aborted in the first semester of pregnancy (i.e. billions of human beings) and anencephalic babies are not persons, even if they are obviously human beings, since they do not possess “a rational nature”.

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