

On the Future of Species and Human-kind

Christological Implications

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Introduction¹

At the council of Nicaea in 325 it was professed that Christ, the Son of God, being of one substance with the Father, was incarnate and was made man. In the next century, at the council of Chalcedon in 451, it was clarified that his becoming man meant that he became consubstantial with human beings. To the annoyance of the so-called 'monophysites' Christ was acknowledged in two natures, one divine and one human, and it was stressed that the union of these natures did not alter or confuse either of them but rather preserved the distinctive property of each. Christ, then, was believed to be co-essential with the Father according to his divinity as well as co-essential with us according to his humanity; 'like us in all things but sin', it was said.

During the following centuries Christological reflections continued, not least in the eastern parts of the Church. According to Jaroslav Pelikan there was a noticeable doctrinal development that took place in these centuries (not least through the works of Maximus the Confessor and John of Damascus), resulting in the understanding of Christ as 'universal man'.² Since

Christ was believed to have assumed not a human *being* – which would have been either the 'Adoptionist' or the so-called 'Nestorian' position – but human *nature*, it was realized that the humanity of Christ must be universal in scope. Such a realization found expression in the doctrine of 'enhypostasis', according to which the human nature of Christ has its being, its personal reality, not in a human subject or centre of identity but in the divine person of Christ.³ More importantly such a realization was related to soteriological considerations. As Saviour Christ had assumed what needed to be saved. Already in the fourth century Gregory of Nazianzus – 'the Theologian' – had formulated the crucial axiom: 'Whatever has not been assumed has not been healed'.⁴ Hence it came to be realized (or at least emphasized) that Christ in order to save human-kind – *all* human beings – must have assumed what necessarily pertained to *all* of its members, i.e. human nature as such.

Lying beneath this post-Chalcedonian understanding of the person and mission of Christ there seems to be an *essentialist* view of human beings, namely a view according to which there is a unique nature common to all and only the members of the class of human beings. To take an example: if it is claimed that all and only human beings are made in the 'image of God' (however that is to be understood), then an essentialist claim is being made. More precisely, what is being claimed is that there is a property –

¹ An earlier draft of this paper was originally presented at 'Religious Responses to Darwinism': a conference at St Anne's College, Oxford University, July 15-18, 2009, organised by the Ian Ramsey Centre for Science and Religion.

² Jaroslav Pelikan, *The Spirit of Eastern Christendom, 600-1700* (Chicago and London: University of Chicago Press, 1974), 75.

³ *Ibid.*, 88-9.

⁴ *Ibid.*, 74.

having been made in the image of God – that is both necessary and sufficient for being human. In other words: the property in question is said to be an *essential* property without which the object or thing (or property holder) would cease to be what it is (namely human). Of course there may be more than one property that is essential to being human. What seems important from a post-Chalcedonian perspective is that there be an essential (and hence universal) set (containing at least one element) of human characteristics.

For those of us who have accepted the Darwinian theory of evolution, according to which biological species – including *Homo sapiens* – are dynamic rather than static entities, this may effectively seem to rule post-Chalcedonian Christology out of court. We may try to develop a ‘process’ theological hermeneutics of what it means to be human or otherwise try to re-interpret the doctrinal statements of the early Church to imply a non-essentialist view of humankind. Given its historical as well as contemporary significance, however, I wish to investigate into the prospects of harmonizing post-Chalcedonian Christology, which appears to imply belief in a universal human nature, with the Darwinian insight that biological species are evolving rather than universally fixed entities. My modest conclusion will be that such harmony indeed can be achieved, but only at the cost of re-introducing the metaphysical notion of an immaterial human soul.

Models of speciation

Our objective, then, is to figure out a way to harmonize post-Chalcedonian Christology with the theory of evolution. For this purpose we need first of all to distinguish between the philosophical notion of being *human* and the biological notion of being *Homo sapiens*. Perhaps a member of humankind is not necessarily a member of the biological species of *Homo sapiens*? (Perhaps e.g. the Neanderthals would fit such a classification?) In fact the possible solutions to our problem are affected by whether or not we believe that human beings are necessarily *Homo sapiens*. If we deny this proposition it would seem as if the somewhat controversial question of *speci-*

ation becomes a non-issue. If being *Homo sapiens* is not essential to being human anyway, we need not bother too much (from our post-Chalcedonian point of view) whether biological speciation occurs gradually or rapidly. If on the other hand we affirm that human beings are necessarily *Homo sapiens* it would seem as if speciation does become an issue. To see why, we first need to clarify the philosophical implications of an essentialist view of human nature.

As we have seen, the essentialist holds that there is a set of necessary (and jointly sufficient) conditions for being a member of humankind. If this view is correct it follows that one cannot be, say, 99 or 70 or 35 percent human; either one *is* a human being or one is *not* – although one that is *not* may be more or less *like* human beings, but that is another issue. But here comes the crux: if every particular being either is or is not a member of humankind and there is no grey zone in between, *then the first historical appearance of human beings was an instantaneous event rather than a gradual process*. Given that we accept the theory of common descent (which we do, of course, if we accept the theory of evolution) this sudden actualization of humankind was effectuated in one of two ways. Either there was a non-human being that gave birth to a human being or else a non-human being was transformed into a human being. Neither of these alternatives looks credible or even evolutionary possible, of course, if a human being is *defined* as a member of *Homo sapiens*, but our present issue is only whether or not such membership is a *necessary condition* for being human.

Now we are able to see why the question of speciation becomes problematic if we insist that every human being necessarily belongs to *Homo sapiens*. In that case we will have to insist, too, that the speciation process that resulted in the formation of *Homo sapiens* was completed before the first humans entered the scene. This of course presupposes that there is such a thing as a *completed* speciation process, but according to the ‘phyletic gradualism’ model of speciation, championed among others by British evolutionary biologist Richard Dawkins, speciation is a continuously ongoing process. In order to speak of a completed speciation process we need rather to look for a different model. The probably most

influential alternative to ‘phyletic gradualism’ is ‘punctuated equilibrium’. According to this model of speciation, championed among others by American palaeontologist Stephen Jay Gould, new species arise through relatively rapid morphological changes, and once such processes are completed species remain essentially in *stases*, i.e. in static states during which no major morphological changes occur. Which of these models best describes evolutionary reality is hotly debated, as may be well known, but at least ‘punctuated equilibrium’ seems better suited than ‘phyletic gradualism’ if we want to affirm that every human being necessarily belongs to *Homo sapiens*.

As we have seen, however, we can remain neutral as to which model of speciation is correct if we deny the assumption that human beings necessarily belong to *Homo sapiens*. Hence a solution to our original problem, namely how to reconcile post-Chalcedonian Christology with evolutionary theory, seems more likely to succeed if we loosen the conceptual connection between *Homo sapiens* and humankind. And this preliminary conclusion seems to be strengthened if we turn, not to the *origin* or speciation of humankind, but to its hypothetical *future*.

A futuristic scenario

Let us imagine a science fiction-like but still perhaps not physically impossible scenario. Suppose that quite many humans go to space and travel to the nearest exoplanet, find it inhabitable and settle down. Suppose further that they multiply and stay there for some, say, 20 million years, without any physical contact with earthlings in the meantime. In theory, at least, this would provide a clear-cut opportunity for ‘allopatric’ or geographically isolated speciation to occur. Suppose finally that after having been there for all this time they decide to return to the planet of their ancestors and, having arrived, it becomes evident that they no longer belong to the same biological species as do humans on Earth.

Personally I would find it hard to deny that *both* populations in this futuristic scenario would be human, essentially speaking, although (at

least) one of them would no longer belong to the biological species of *Homo sapiens*. And from a soteriological point of view this conclusion seems justified, too, because if Christ assumed a human nature, then only those with a human nature can be saved, given the axiom of Nazianzus’ that was mentioned earlier. Would it not be very odd, indeed, disturbing, if either of these hypothetical populations were denied the possibility of salvation because of some issues regarding their biological classification?

Difficulties – and responses

Our preliminary conclusion, then, seems to have been strengthened by taking a futuristic story of allopatric speciation into account. Hence there appears to be at least a couple of reasons to prefer a solution to our original problem that loosens the conceptual connection between *Homo sapiens* and humankind. This suggestion, however, is not free from difficulties of its own. To begin with, even if we grant that the link between humankind and *Homo sapiens* is not essential it cannot be weakened too much. Not only do we know that all living members of humankind are also (as a matter of biological fact) members of *Homo sapiens*, but we know, too, that no living beings *but* members of *Homo sapiens* are members of humankind. Our closest living biological relatives, the chimpanzees, *Pan troglodytes*, are decidedly *non-human* beings (hence *Pan* rather than *Homo*), and so it seems that even if humankind is not essentially connected to *Homo sapiens* it must still be connected to a rather limited range of biological species. Presumably these species must belong to the genus *Homo*, i.e. to the (modern) taxonomical subtribe of ‘hominans’ within the tribe of ‘hominins’ within the family of ‘hominids’.⁵ In plain English: they must belong to species that resemble modern humans more than they resemble modern chimps. The earliest species within this subtribe of hominans (of which *Homo sapiens* is the only extant example) is believed to have evolved about 2 to 2.5 million

⁵ Bernard Wood, *Human Evolution: A Very Short Introduction* (Oxford UP, 2005), 23.

years ago.⁶ Thus even if we loosen the conceptual link between humankind and *Homo sapiens* we cannot likely allow for connections beyond the taxonomical subtribe of hominans, and hence we can conclude that the first human beings appeared at the very earliest about 2.5 million years ago.

Another difficulty is that the aforementioned conceptual restrictions may affect our futuristic scenario. What if, after some 20 million years have passed, one of the two hypothetical populations of our future descendants looks and behaves just like the chimpanzees of the 21st century? Since we have just stressed that chimps are *not* humans it would seem unreasonable to insist that these future hypothetical chimp-like beings *are* humans. Somewhere down the future evolutionary line they must rather *cease* to be human, and, just like when humans first originated, their transition must be instantaneous rather than gradual, given an essentialist understanding of humankind. But this seems to re-actualize the soteriological predicament that we have already tried to solve. The prospect of a human being giving birth to a non-human being or, even worse, of a human being transforming into a non-human being, seems gloomy. Indeed this very prospect provided us with a reason to loosen the conceptual connection between *Homo sapiens* and humankind; now, having done that, it seems that the problem may reappear, albeit at a higher level in the taxonomy.

Or maybe it does not reappear? Perhaps the modified version of our futuristic scenario, i.e. the version in which a human population eventually (because of its chimp-like tendencies) ceases to be human, is evolutionary unrealistic? Indeed it is difficult to see how Darwinian mechanisms could favour *less* intelligent (chimp-like) specimens over *more* intelligent (human-like) ones. Rather it seems evolutionary more reasonable to expect that once a species has acquired such traits as we consider distinctively human, such as higher-level rationality, abstract language and communication capacities, existential self-awareness, and moral sentiments, it will either keep these characteristics (and perhaps improve them) or become extinct. But if

this reasoning is correct the prospect of a human population that suddenly loses its humanity – its essential human characteristics – appears to be hardly more than a theoretical construct.

For the sake of argument, however, let us not rest content with such a reply. Indeed let us suppose that a future human population may suddenly lose its essential humanity. What would this mean from a post-Chalcedonian point of view? The answer, I reckon, is that the anthropologically daunting prospect of a human population that suddenly loses its humanity should remind us of the inevitable end of the world and Judgement Day. *If* a human population were ever about to evolve itself out of human existence, as it were, Christian eschatology (both in its pre- and post-Chalcedonian form) would seem to predict the arrival of a new and better order of the world. Whether such a prediction is true is, of course, another issue; suffice it to say that post-Chalcedonian Christology – one of the two subject matters of our investigation – has no obvious need to abandon its essentialist underpinnings because of a modified futuristic scenario that may not even be evolutionary reasonable to begin with.

The immaterial soul

But still there is one major difficulty to address. So far we have noted only in passing that an essentialist view of humans implies that any single organism either is or is not a human being; there is no grey zone in between. But evolving biological species do *not* have such clear boundaries, neither on a ‘phyletic gradualism’ nor on a ‘punctuated equilibrium’ model of speciation; in fact that was one of our reasons for trying to loosen the conceptual connection between *Homo sapiens* and humankind. The processes of speciation may be gradual (as Dawkins claims) or rapid (as Gould claims), but no evolutionist (to my knowledge) suggests that they are *instantaneous*. Yet, again, essentialism demands that the transition from non-human organism to human organism *is* instantaneous. In the absence of viable biological or even scientific explanations, then, how is such an immediate transition to be understood?

⁶ *Ibid.*, 48.

Presumably the (non-arbitrary) answer must be of a metaphysical character. If two organisms are biologically similar in every relevant aspect and yet only one of them is a human being, the ontological difference between them must be due to some non-material substance or entity, or *soul*. From a post-Chalcedonian perspective this metaphysical element poses no problem at all, it would seem, since the notion of an immaterial human soul was arguably part and parcel of the Christian anthropology from the start. Consequently, since our objective is precisely to harmonize post-Chalcedonian Christology with evolutionary theory, we may conclude that the instantaneous transition in question was due to the direct impartation or infusion of the soul into an organism – i.e. a primate, ‘Adam’ – by God.

It should be emphasized that this is *not* an ad hoc manoeuvre from the post-Chalcedonian point of view. Many, probably most, post- as well as pre-Chalcedonian Christians would believe in the existence of spiritual human souls whether or not evolutionary theory was true.⁷ At the same time, however, it should be emphasized from an evolutionary point of view that it is far from clear how an immaterial soul that somehow carries the identity of a human being can be related to such human characteristics as higher-level rationality, abstract language and communication capacities, existential self-awareness, and moral sentiments. If it is claimed that such characteristics could *not* have evolved in the absence of spiritual souls, most evolutionary theorists would likely disagree. If on the other hand it is claimed that they *could* have evolved by material processes alone, what is left, then, for the spiritual soul to do or explain?

Conclusion

Let us take stock. Our task has been to investigate whether post-Chalcedonian Christology, which appears to imply an essentialist view of human nature, can be reconciled with the evolutionary view that biological species are evolving rather than universally fixed entities. Having

made a distinction between *Homo sapiens* and humankind we found reasons to think that these two notions need not necessarily overlap. However, we found other reasons to think that they must not be separated too much, and we concluded that a human being must likely belong to a species within the rather limited taxonomical subtribe of hominans, including e.g. the extinct species of *Homo neanderthalensis* and *Homo erectus* as well as hypothetical future species that may emerge from our own descendants within the genus *Homo*.

The attempted harmonizing picture that emerges, then, rudimentary as it is, looks something like this. At some instantaneous point in history, no earlier than 2.5 million years ago at the time of the earliest hominans, and probably no later than 40.000 years ago at a time when the species of *Homo sapiens* not only had formed morphologically but had started to express itself culturally – at this instantaneous point the first humans appeared. Although morphologically indistinguishable from their immediate biological parents, these primordial members of humankind were imbued with an immaterial substance, a spiritual soul, created directly by God, in the image of God. From this historical moment in time human beings inhabited the earth and they will continue to inhabit it for the foreseeable future – although they will not necessarily remain connected to their present species of *Homo sapiens*. When humankind eventually (and inevitably) draws to an end – possibly by evolving itself out of existence, as it were, or out of taxonomical bounds – the world as a whole will come to an end too. That, however, according to Christian eschatology both of a pre- and post-Chalcedonian sort, will mark the beginning of something of much more enduring qualities: a world where e.g. biological evolution and its in-built natural selection no longer occur, but where God will be all in all.

⁷ Cf. e.g. the *Catechism of the Catholic Church*, § 362-6.