HUMAN DEATH IN THEOLOGICAL ANTHROPOLOGY AND EVOLUTIONARY BIOLOGY: DISAMBIGUATING (IM)MORTALITY AS ECUMENICAL SOLUTION

by Gijsbert van den Brink

Abstract. Human death is natural from the perspective of evolutionary biology but unnatural from the vantage point of classical Christian theology. The biblical notion that death entered the world as a result of sin seems hard to square with the view that (human) death has been an integral part of the natural order all along. I suggest an ecumenical solution to this conundrum by retrieving and elaborating the Augustinian modal distinction between strong and weak immortality. It is argued on exegetical and theological grounds that the human being can best be seen as being created in a state of *posse mori et posse non mori*, and that—when conceptual ambiguities in their writings are dissolved—this is what theologians as diverse as the prelates of the Council of Trent, John Calvin, Louis Berkhof, and Wolfhart Pannenberg had in mind. It is also argued that this solution is compatible with contemporary evolutionary science and can be accepted by creationists of various stripes.

Keywords: Augustine; Christianity; death; ecumenical theology; evolutionary biology; human nature; immortality; theological anthropology; theology and science

Introduction

This article examines from a Christian theological perspective to what extent human death can be considered as part of God's good creation and to what extent it should be seen as one of the consequences of human sin. On the one hand, especially the death of beloved ones and of relatively young people is widely experienced as an evil (in the sense that it causes much suffering) instead of something that might be called good. The Bible confirms this generally shared negative feeling, suggesting at various places—most famously Genesis 2, Romans 5, and 1 Corinthians 15—that human death is a sign of God's disapproval of human misconduct rather than part of God's good creation. In fact, there are many more

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biblical passages that convey a negative notion of human death as an expression of divine anger (Psalm 90:7), judgment (Romans 1:32), or curse (Galatians 3:13). In general, death is seen as separation from God as the source of life (e.g., Psalm 30:9). On the other hand, we can all see that the earth would be uninhabitable if humans (just like other species) did not die after a couple of decades; in that sense, it seems that death, including the death of human beings, is part and parcel of created life. Evolutionary biology and ecology confirm this point of view by highlighting the extent to which death, even massive death, is deeply ingrained in nature, extending over all levels of living systems (Wood 2016).[1]

In the famous final lines of *The Origin of Species*, Darwin (1859, 490) already drew the following conclusion from his theory of natural selection: "Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows" (emphasis mine). Indeed, as Ted Peters (2018, 98) comments, in a situation in which many organisms have to compete for limited resources of food and shelter,"(…) early death is scheduled for large numbers of those creatures who are born. Nature has no intention to draw each individual life to fulfillment (…)." This observation seems to apply to humankind as much as to other species. Thus, given these diverging observations, how should human finitude and death be assessed from a theological perspective—how do they relate to God's good creation?

Before addressing this question, some preliminary comments are in order. First, I am not concerned here with the death and suffering of animals (Murray 2008; Creegan 2013; Sollereder 2019; van den Brink 2020, 99–135). Although some would argue that even animal death belongs to the consequences of human sin, from a biblical perspective this cannot be substantiated. Nor has it been the standard view in the Christian tradition (e.g., Garvey 2019, 73–100; Slootweg 2022, 27–74). For example, both in Genesis 2-3 and in Romans 5, it is only humans that the biblical writers have in view when interpreting death as a sign of divine disapproval. The death of animals (even when it is the result of predation; see, e.g., Psalm 104:21) is usually seen as less troublesome. This is not to say that a clear-cut distinction between humans and (other) animals can be made vis-à-vis death. Given the many functional similarities between humans and animals and (if some version of Darwinian evolution is accepted) their common descent, a compelling theology of human death will also have to take the fate of animals into account, especially that of now extinct hominins (see "Science Does Not Say No" section). As said, however, in this article, we will mainly focus on the issue of human death.

Second, the dilemma we are facing is not just the well-known and old-worn dilemma of "biology against the Bible." Although evolutionary biology aggravates the problem (given the extent to which massive death is

implied in processes of natural selection and therefore belongs to the natural order), the tension is felt even when we leave biology out of the picture. Next to the texts referred to above, the biblical literature contains quite some passages that convey a more positive appreciation of death–or at least of human mortality, which is linked to human's being created "from the dust of the ground" (Gen. 2:7; cf. 3:19 and 1 Cor. 15:47). In particular, dying at an old age is considered to be quite natural. For example, it is said about Abraham that he died "in a good old age" and "full of years" (Gen. 25:8; NRSV), which suggests that his death actually was something good instead of an evil (cf. 35:29, 49:33 for similar accounts about the other patriarchs). Isaiah 65:20 suggests that even in eschatological times, people will still die at a high age! Thus, on the one hand, it seems that human death is part of the natural cycle, nothing "strange" or unexpected in a good creation (see also, e.g., Eccl. 3:19, 12:7, Job 10:9); on the other hand, human death is considered an intruder, brutally destroying the harmony and *shalom* that God intended for creation. In what follows, we will particularly focus on the contrast with evolutionary biology, but it is important to keep in mind that this contrast has an intrabiblical dimension as well.

Third, as we will see in more detail below, death is a layered concept in the biblical literature; it does not just denote a physical reality but also a spiritual one—and it has to be derived from the context which dimension the biblical writer is highlighting in a particular passage. Likewise, the concept of death can be used as a metaphor, underlining the hopelessness of a specific situation. This is the case, for example, when the Ephesians are reminded of the fact that once they were "dead through the trespasses and sins" (Eph. 2:1). Even worse is the fate of those who will end up in "the second death" (Rev. 20:13). These examples must suffice here to evoke a sense of the many shades of meaning biblical references to death convey. In brief, there is no univocity or homogeneity in biblical talk about death (cf., e.g., Skinner 2015).

Fourth, when addressing these variegated views of human death, I will not develop an entirely new solution as an attempt to harmonize them. Instead, I want to do justice to the various strands by elaborating on an existing and even widely accepted way of thinking on these issues (a theology of human death, if you want), which I will present with more conceptual precision than one usually finds in the literature. This view entails that humans have been created in a state that was susceptible to death but could at any moment be transposed into a state of immortality by divine intervention. I want to show that this view might be, and perhaps should be, convincing to Christians of various denominational traditions. I also suggest that Christians who take different sides in the creation-evolution debate—young and old earth creationists, adherents of Intelligent Design, theistic evolutionists, just-do not-knowers, and so on—could all accept

it on their own premises. If my attempt is successful, one issue that is often put forward as divisive in contemporary creation-evolution debates–namely that of the theological meaning of human death–need no longer be considered as such. Of course, even so, there are other issues of origin that will continue to divide Christians for the time being, but it is promising to have at least one domain of theological reflection where *rapprochement* is possible.

A theological theory of human death that is by and large convincing to the groups mentioned above and therefore, hopefully, *ecumenically* acceptable, should at least satisfy the following demands. It should be:

(1) theologically sound (i.e., in line with the Christian doctrinal tradition at large and not contradicting any received doctrine);
(2) based on proper exegesis (so no evident "reading in" of contemporary science or any personal preferences into Scripture);
(3) in agreement with mainstream contemporary science.

Is such a theory possible at all? We will examine the first criterion in "Strong and Weak (Im)mortality" section, the second one in "The Unity of Spiritual and Physical Death in the Biblical Scriptures" section, and the third one in "Science Does Not Say No" section before drawing our conclusions in the final section.

Strong and Weak (Im)Mortality

At first sight, both Catholic and Protestant traditional doctrinal sources seem to suggest that initially humans were created by God in a state of immortality. The Roman Catechism (or *Catechism of the Council of Trent*), which is indicative of traditional Roman Catholic doctrine, for example, states that God "formed man from the slime of the earth, immortal and impassable" (Donovan 1829, 30).[2] It is clear from this sentence that not just the human soul was considered immortal but also the body. Similarly, summarizing the traditional Protestant view, Reformed theologian Louis Berkhof claimed that "man was created immortal" (Berkhof 1959, 209). Such affirmations in both Protestant and Roman Catholic doctrinal sources can be traced all the way back to the fifteenth (anti-Pelagian) council of Carthage in 418, where an anathema was pronounced on "whoever says Adam, the first man, was created subject to death *[mortalem]*" (Denzinger et al. 2012, 82, sec. 222). If Adam was not created mortal, the only alternative seems to be that he was created immortal.

However, if we look slightly closer, such statements were usually fleshed out with quite some nuance. The Council of Carthage, for example, specifies its anathema as follows: "… in such a way that, whether he [Adam] sinned or whether he did not sin, he would die in the body (…) due to the

necessity of nature" (Denzinger et al. 2012). Thus, the ruling condemns those and only those who hold that Adam had to die *necessarily* due to his physical constitution. The option that Adam might either have died or escaped death depending on God's will is not in the picture here. The Roman Catechism seems to precisely endorse this option because it immediately adds that the created human being was immortal not "by the strength of nature, but by the bounty of God" (Donovan 1829, 30). Apparently, from the perspective of the strength of his nature, man might have died. Berkhof's view is also worth quoting in more detail. Immediately after having stated that man was created immortal, he continues:

> This applies not only to the soul, but to the whole person of man; and therefore does not merely mean that the soul was destined to have continued existence. *Neither does it mean that man was raised above the possibility of becoming a prey to death*; this can only be affirmed of the angels and the saints in heaven. It does mean, however, that man, as he was created by God, did not bear within him the seeds of death and would not have died *necessarily* in virtue of the original constitution of his nature. (Berkhof 1959, 209)

The second sentence has been italicized by the present author, but the italicization of "necessarily" is original—and relevant: when claiming that the created human being "did not bear within him the seeds of death," Berkhof means that humans *need not* die; yet, given their constitution they *could* die, since they were not "raised above the possibility of becoming a prey to death." Thus, it seems that Berkhof wants to maintain that, somehow, humans have been vulnerable to death all along. The gift of being inherently unsusceptible to death has been reserved by God for the angels and the saints in heaven.

Berkhof goes on to specify in more technical language what he has in mind and what he (rightly in my view) considers to be received Christian wisdom: Adam was created in a state of *posse non mori* (Berkhof 1959, 226).[3] He lends us a great service here by giving a very specific meaning to the term immortality. In many debates about "death and immortality," the latter term is often used in a nonspecified and therefore ambiguous way. The notion of immortality that the tradition ascribed to the created human being usually was not that of *non posse mori* (= not being able to die) but that of *posse non mori* (= being able not to die, i.e., having the possibility to escape death, e.g., by continuously seeing it postponed).[4] It seems to me that this view actually comes close to the one put forward in the Roman Catechism: the capacity not to die was not an inherent capacity of the created human being ("by the strength of nature") but resulted from God's goodness. In his goodness, we may paraphrase, God continuously prevented the human being from dying, for example, by securing there

was enough food for him to eat, that he was not killed by predators or viruses, and so on.

Thus, the Genesis reference to our being created "from the slime of the earth" (or "from the dust of the ground," NRSV) seems to have prompted both Catholics and Protestants to prefer this view to the one according to which we were created in a state of *non posse mori*. After all, the possibility of dissolution seems to be inherent in the notion of dust. Alternatively (or additionally), it may be that sheer logic prompted them to take this course, since it is hard to see how a being that is created in the state of *non posse mori* can shift to a state of *posse mori* (and even *non posse non mori!*) while remaining the same being. This is especially hard if it is logical (im)possibility that is in view here: if there is no possible world in which I die, there cannot all of a sudden emerge a real world in which I do die after all (let alone one in which I *have to* die). If the nature of the possibility is physical, on the other hand, it would require a miracle to change the nature of my physical constitution and have me move from the state of *non posse mori* to the state of *posse mori* or *non posse non mori*. Of course, one might be willing to invoke such a miraculous change, but the tradition does not seem to have been inclined to do so.

The distinction between the various modes of *mori* goes back to the closing passage of Augustine's *City of God* (XXII.30; Augustine 1993, 510), which became famous because it is also the fountainhead of the view that Adam was created in the state in which he could, but did not need to, sin. Interestingly, Augustine adheres to the *posse mori et posse non mori* view because, drawing on the link between sin and death in the Bible, he maintains a strict parallelism between the two: just as we were created in the state of *posse peccare et posse non peccare*, we were also created in a state of *posse mori et posse non mori*. In fact, it seems that no Christian, however traditional she may want to be, is bound to the view that humans were created in a state in which it was physically impossible to die, that is, in a state in which our bodies were constituted in such a completely different way that our physical lives could not come to an end. Rather, it seems that according to the Christian doctrinal tradition, humans were created in a state in which God could sustain our bodies in such a way that death, although a theoretical possibility, would not be actualized (see "Science Does Not Say No" section on how such a scenario might be envisioned). Thus, we were immortal in the sense that our bodily existence could in principle be sustained by God indefinitely, but at the same time, we were mortal in the sense that, logically and physically speaking, we could die. Arguably, immortality in the sense of being unable to die is the prerogative of the One who "alone has immortality and dwells in unapproachable light" (1 Timothy 6:16).

We might disambiguate these various meanings slightly more by calling the condition of *posse non mori* "weak immortality," as distinct from

the "strong immortality" that is involved in the *non posse mori* of God and perhaps the angels and saints (though we might consider that in the eschatological world, the saints, being humans, continue to display weak immortality, being as dependent on resources to sustain their lives as Jesus apparently was after the resurrection). Additionally, we might call the situation of not-being-able-to-escape-death (or *non posse non mori*) in which we, like all other species, find ourselves today, "strong mortality." Finally, the condition of *posse mori* could be referred to as a situation of finitude or "weak mortality." Therefore, in all, there are four modal options to be distinguished:

(1) strong immortality, or the condition of not being able to die;
(2) weak immortality, or the condition of not having to die;
(3) weak mortality, or the condition of being able to die;
(4) strong mortality, or the condition of having to die.

Note that options (2) and (3) go hand in hand, since *posse non mori* logically implies *posse mori*: if it is possible (rather than necessary) for a being not to die, then it also possible for that being to die, and *vice versa*. Thus, on the Augustinian view, we were created in a state that was characterized by both weak mortality and weak immortality.

Interestingly, coming from the Lutheran tradition (so a different one than both Trent and Berkhof), and being a modern theologian in the sense of accepting the heritage of the Enlightenment, including historical biblical criticism, German theologian Wolfhart Pannenberg seems to advocate the same outlook. Following a superb brief overview of the Christian theology of death in its confrontation with modern secular views, Pannenberg endorses a distinction between human natural finitude on the one hand (presumably to be understood in terms of weak mortality or *posse mori*) and human death (understood as strong mortality) as a result of sin on the other. He maintains that it is not just in our subjective experience that death should be seen as "the wages of sin" (a stance to which modern theology has largely retreated) but that, from a Christian point of view, this is an objective anthropological reality: unlike finitude, death is not a natural part of human life but a sign of God's disapproval and judgment of our sinful lives.

Although there is of course a link "between human death and the corruptibility that we find throughout nature, especially in prehuman forms of life," this link is not a causal connection but an analogy: in nonhuman nature, especially in "organic creatures," a "thrust for autonomy" can be discerned that is at least analogous to human sin and can be seen as the cause of nonhuman death. Therefore, the link between human death and the corruptibility that we observe throughout nature "in no way

contradicts the Pauline thought that death is the consequence of sin" (Pannenberg 1998, 560). Thus, Pannenberg may most of all highlight the finitude of our created state, whereas Berkhof refers to it as "immortal," but both seem to have in mind the condition of *posse mori et posse non mori*. A representative of the same view from the *Methodist* tradition is Thomas H. McCall. After careful comparison of several options, McCall endorses the view that the death that is the result of sin is "the (physical and spiritual) death of humans," humans having been created in what he calls "(conditional) immortality" (McCall 2019, chapter 6, IV)—a state that is identical to what we dubbed weak immortality.

Interestingly, Pannenberg offers a Christological argument for this view: "In opposition to Monophysitism (…), the church confesses that even the risen Christ, too, remained a man, and therefore a finite being distinct from God, even though he will never die again. Thus, the Christian hope is the same for believers who will in the future share in the new life of the risen Lord. It follows, then, that we must distinguish between finitude and mortality" (Pannenberg 1998, 560). Pannenberg suggests here that in the eschatological world, humans will once again receive the state of *posse non mori* or weak immortality in which they were created. This state of finitude needs to be distinguished from "mortality," by which he arguably means our current state of having to die. Meanwhile, Pannenberg's reference to Paul leads us to the biblical Scriptures. Could it be that the doctrinal tradition that we briefly reviewed here indeed goes back all the way down to the biblical Scriptures? In other words, is this view of human death, doctrinally accepted as it may be, also exegetically sound?

The Unity of Spiritual and Physical Death in the Biblical Scriptures

In Genesis 2:16-17, the Lord God says to Adam, "You may freely eat of every tree of the garden; but of the tree of knowledge of good and evil you shall not eat, for in the day that you eat of it you shall surely die" (NRSV). In the most common reading of these words, it is taken for granted that Adam and his wife are threatened here with having to undergo physical death in case they do not obey this command. On closer inspection, however, this is not so evident. If we take the divine warning to refer to physical death, it did not come to pass as announced: Adam and his wife did not die on that very day but lived on for many hundreds of years. Old Testament scholars have therefore wondered whether "the serpent got it right" in suggesting that the man and his wife would *not* die upon eating from the tree but rather be like God, "knowing good and evil" (Genesis 3:22; cf. the serpent's prediction in 3:5). Indeed, James Barr states: "The serpent was the one who was right (…). They did not die" (Barr 1992, 8). That would mean, however, that God is unreliable, which goes against the grain

of the entire Hebrew Bible (Moberly 2009, 81–83; see also Moberly 1988, 1–27, and Barr's response: Barr 1992, 1–22). Usually, the words of God noted in the Bible come true, and it is hard to imagine that a story about God's *un*reliability would have received such a prominent place in the very opening chapters of the Jewish and Christian canons.

Therefore, it is not strange that interpreters have come up with a different reading, according to which "death" should not be taken as referring to physical death. Rather, it should be seen metaphorically as referring to a serious *loss in quality of life*. Indeed, throughout the Bible, the word "death" is polysemic. It is regularly used to denote an impoverished way of life characterized by adversity and curses and spent in a meaningless way in alienation from God and one's fellow human beings (Moberly 2009, 84, points to Luke 15:32 and Deuteronomy 30:15–20 in this connection; another famous passage to this effect is Ephesians 2:1–5). Arguably, this is exactly the sort of life to which Adam and his wife are condemned in Genesis 3 after their disobedience to God's command. In this spiritual and relational sense, therefore, the divine warning in Genesis 2:7 did come true (Alexander 2014, 324; cf. Green and Morris 2020, 382–83).[5] However, it is unconvincing to reduce the punishment that Adam and his wife received for their disobedience to this sort of "spiritual death." In ancient near-eastern thinking, the distinction between material and spiritual existence is far less clear-cut than it is in modern Western thought; it is therefore plausible that their physical existence is also involved here. This is confirmed by the fact that at the end of the story, the man and his wife are expelled from the garden lest they might "take also from the tree of life and live forever" (vs. 22). The phrase "live forever" obviously refers to a temporal continuation of their physical-spiritual existence. Thus, it seems that Adam and his wife had not been physically created in a state of strong mortality (i.e., necessarily having-to-die), for in that case it would have been impossible for them to "live forever." Nor were they created in a state of strong immortality, since in that case they would not have needed external resources-symbolized by the tree of life-to live on forever. As Fretheim observes, "If they were created [strongly] immortal, the tree of life would have been irrelevant" (Fretheim 1994, 152).

The implication seems to be that they were created in the condition of weak immortality and weak mortality. That is, their finite lives could end either in death or by being transposed into eternal life. Having disobeyed God, however, they became deprived of the second option, which is figuratively signified by their being denied access to the tree of life. The process of their spiritual death, which started to materialize on the day of their disobedience, was to end in their physical death: their lives were now unavoidably terminated by physical death at some stage. Thus, they lost the "hope of immortality" (Barr 1992). In this way, the Genesis writer goes beyond any dualism between the physical and the spiritual realm, instead

seeing these two as inextricably connected with each other (see for this reading, e.g., Collins 2006, 180–181; Osborne 2014, 129–31; Middleton 2018; cf. Middleton 2017; Howard 2016; Van Ee 2018). As Noel Weeks observes, "The point of the text is to present death as a process"—a process that starts after the eating of the forbidden fruit and ends when the human being "returns to the dust" (Weeks 2014, 296). Indeed, how else could a life of alienation from God end than in physical death?

Interestingly, sixteenth-century Reformer John Calvin already treated the nature of death in Genesis 2–3 with remarkable nuance. Calvin clearly saw the discrepancy between the divine threat in Genesis 2:17 and the unexpected delay of Adam's death after his transgression. He therefore wonders what kind of death is meant here and comments as follows:

> It appears to me, that the definition of this death is to be sought from its opposite; we must, I say, remember from what kind of life man fell. He was, in every respect, happy; his life, therefore, had alike respect to his body and his soul (…). His earthly life truly would have been temporal; yet he would have passed into heaven without death and without injury. Death, therefore, is now a terror to us; first, because there is a kind of annihilation, as it respects the body; then, because the soul feels the curse of God. We must also see what is the cause of death, namely, alienation from God. Thence it follows, that under the name of death is comprehended all those miseries in which Adam involved himself by his defection; (…). The miseries and evils both of soul and body, with which man is beset so long as he is on earth, are a kind of entrance into death, till death itself entirely absorbs him (…). (Calvin 1948, 127–28)

Two things stand out in this quote. First, it is remarkable that Calvin resists current dualisms between body and soul. Instead of locating immortal life in the soul and finite life in the body, he keeps both closely together: Adam's entire life was temporal ("weakly mortal," in our terminology) but also destined for eternal communion with God ("weakly immortal"). Similarly, the death of both body and soul coalesce: Adam's physical death is the natural concluding part of the process of his spiritual death, which started on the day that he sinned. Second, although Calvin denies that Adam would have died anyhow, he hastens to add that this is because "death (…) is now a terror for us," since dying implies the annihilation of the body and the curse of God. In *that* sense, Adam would not have died had he refrained from sinning. However, in another sense his biological life would have reached an end, at which time Adam would have moved to another state of life, namely, that of eternal life (presumably conceived of as strong immortality; Calvin's exegesis of Genesis 3:19 and 22 confirms this interpretation). In any case, Calvin clearly assumes that Adam was created with a finite body similar to ours (Lee 2020, 2–3, misses this point). It is only because of God's goodness, and not because of some inherent power,

that this body might have received eternal life by (like Enoch in Genesis 5:24?) being transferred to the heavenly state.

Now we should mind the words of Walter Moberly that "it is intrinsically doubtful that any one reading [of Genesis 2-3] can do full justice to all the features of the text"—the text definitely being too multilayered, rich and complex to allow for a uniform interpretation (Moberly 2009, 75). However, if the death-as-a-process reading makes sense, it enables us to appreciate Paul's interpretation of the passage in that other classical proof-text for human physical death as "the wages of sin": Romans 5. For it seems incontrovertible that Paul read Genesis 2–3 as implying that, apart from spiritual death, our human physical death as well came into the world as a consequence of sin. To be sure, given that references to death in such texts as Romans 6:4, 6:21, and 8:10 clearly do not apply to physical death, it has been suggested that in Romans 5 as well Paul may only have had in mind spiritual death (e.g., Finlay and Pattemore 2009, 61–63). If this were true, the perceived conflict between "biology and the Bible" might be neatly solved: science tells us about our physical states (our bodies have been subject to death from the beginning of our existence as a species) and religion about our spiritual conditions (our alienation from God as a result of sin).

However, such an interpretation is exegetically unconvincing. Romans 5 hardly allows for the interpretation that Paul is pointing to sin as the cause of our spiritual death (or "relational death") only. As Mark Harris points out:

> It is true that Paul was certainly capable of using "death" as a metaphor for the separation between God and humankind (…), and this appears in various places in the New Testament (e.g., Lk. 15:32; Rom. 6:2-11; Eph. 2:1,5; Col. 2:13). However, it is always clear from the context when "death" is meant as a metaphor, and this is emphatically not the case in Romans 5, since Paul introduces "death" by referring to Christ's very literal death (vv. 8–10). (Harris 2013, 140)

To be sure, like the writer of Genesis 2–3, Paul did not make a clear-cut distinction between spiritual and biological death. In his view, our spiritual death was certainly included in the consequences of sin (irrespective of whether we are speaking of Adam's sin here or our own sinning—one of the disputed questions in the doctrine of original sin). However, it could not be separated from biological death. As Harris says, "For Paul, death is both the end of earthly existence, and separation from God, in common with much Jewish thinking of his time" (Harris 2013, 141).

It has been suggested (most famously by Karl Barth 1960, sec. 47.5) that human physical death assumed a different, more gruesome character as a result of sin. Whereas in and of itself human death was a natural God-given termination of life, it turned into an evil once it became the culmination

point of human alienation from God. However, this attempt to have it both ways—interpreting human death as a natural phenomenon and, in our factual condition, as a sign of divine condemnation—is not without problems. As G.C. Berkouwer insightfully pointed out, "[i]f natural dying actually belongs to God's original, good and meaningful creation as the ending of life, then it is most difficult to see how this end can even be brought into essential relation with death as destruction, corruption and damnation (Berkouwer 1959, 238)."[6] Moreover, in New Testament soteriology, salvation does not mean that through Jesus Christ, death has been reduced to its original natural character but that it has been "swallowed up in victory" (1 Corinthians 15:54–57).

Thus, it seems that in the view of both Paul and the Genesis writer, while humans were created as finite beings, their biological death (next to their "relational death") entered the world as a divine punishment for sin. Arguably, after they had started to sin, they came to die, just as all other living organisms had been dying all along. The Garden of Eden symbolizes that they were only temporarily exempted from this fate. However, can we make sense of such a view from a contemporary scientific perspective? This question is most pressing when we hold that the "limits of Scripture" require us to relegate the issue of human (im)mortality entirely to the sphere of science (Conradie 2002, 280). However, it is equally relevant when we think that the view on human death and (im)mortality conveyed in the Bible belongs to the very heart of its theological anthropology rather than to the cultural cognitive environment in which this anthropology was embedded.

Science Does Not Say No

The picture that emerges from both our doctrinal and our exegetical explorations is actually quite uniform: the human being was created by God in a state in which he could possibly die but did not necessarily die (weak mortality and weak immortality), just as humans were created in a state in which they could possibly sin but did not need to sin. According to both the writer of Genesis, Paul, and, as we have seen, large parts of the Western doctrinal tradition, whereas our finitude or mortality (= ability to die) is part and parcel of our created constitution, it is one of the consequences of sin that we actually have to die: actual death is "the wages of sin" (Romans 6:23).

Now, given a contemporary scientific framework, can we still make sense of this claim that our physical death is inextricably linked with God's condemnation of sinful human behavior? Initially, the prospects seem dim. We already referred to processes of natural selection that operate on nature's production of far more offspring than can possibly survive to the age of reproduction; in this way, massive death is ingrained in the very

mechanisms of the evolutionary process. Moreover, evolutionary biology makes no exception for the human species: humans as well as all other forms of life are bound to die. Christians who are critical of evolutionary theory therefore sometimes give short shrift to the possibility that evolution allows for a biblical view of human death. According to Wayne Grudem, for example, whereas Paul affirmed that death entered the world through Adam's sin, "theistic evolution requires us to deny that human death began as a result of Adam's sin, and this (…) requires us to say that the Genesis account is not a trustworthy (…) narrative, and that Paul was wrong" (Grudem 2017, 810).[7] However, Grudem is jumping to conclusions here.

Remarkably, perhaps, in and of itself, the evolutionary process does not seem to require death. As ecologist and evolutionary biologist Jeffrey Schloss has pointed out, both at an organismal and physiological level and at a wider ecological level, "there are no reasons why death must occur" (Schloss 2002, 83). Endorsing an adaptive theory of aging, Schloss holds that senescence does not take place by some inner biological necessity but is a "built-in adaptation" that serves to enhance fitness in a specific way, that is, by making more room for new generations (Schloss 2002, 83). The adaptation is widespread because it is of course very effective, but in fact, some species (most but not all unicellular) have been found that do not show any signs of senescence.[8] Theoretically, we can even imagine ecosystems that function as a result of regular evolutionary processes but that do not include predation (Schloss 2002, 83). Such a scenario would not imply any "magic." To be sure, the absence of death is of course unthinkable in our current ecological system, given its limited resources and the procreation rates of most species. Death and predation are unavoidable in ecological settings constrained by finite resources that host reproductively increasing populations that do not sufficiently emigrate. Even so, however, we can imagine logically possible ecological settings that do not share such constraints, and in that sense, death should not be seen as a necessary condition of life. The *possibility* of death, however, is absolutely necessary for life, given the fact that life consists of the continued resistance of entropic forces that are at work (Schloss 2002, 84; and cf., drawing heavily on Schloss, Kelsey 2009, 248–50).

Schloss is putting forward these ruminations in the context of eschatology, but they can also be linked to protology. It is interesting to note that the possibility of death (i.e., the condition of *posse mori*) is more deeply ingrained in the biological world than its current necessity (i.e., the condition of *non posse non mori*). In line with this, those who think Genesis 2-3 should be read literally might conceive of the garden of Eden as a relatively peaceful and harmonious ecological niche (cf. Schuster 2004, 10–12), in which the human being was not threatened by wild animals or diseases and perhaps not even by the fate of senescence. The absence of senescence

is not necessary, however, since the story clearly suggests that the Fall took place only a short time after the creation of the human being, long before one generation had passed. In theory, Adam and Eve could have grown old in order to then at some point (instead of dying) being translated to the beatific vision. Thus, it is perfectly possible to imagine that only after they had given in to sin the first humans came to die as a result of aging—as well as more violent causes (cf. Genesis 4).

However, who can we scientifically have in mind when speaking of these "first humans"? Is it feasible at all to suggest in a theological narrative that all humans and only humans, although subject to regular natural processes, were by God's grace exempt from dying for the first period of their existence as a species? And if it is, do we not give in to a dubious sort of "human exceptionalism"? Indeed, it is not easy to specify what exactly "human" may mean in this connection. Does it exclusively refer to *Homo sapiens*? Recent research has suggested that Neanderthals, like some other hominin species (e.g., the Denisovans), had sophisticated evolved traits that came much closer to those of early modern humans than we used to think. It seems that they possessed a capacity for complex language and speech, performed symbolic art and developed certain technological tools at the same time as, or even prior to, members of *Homo sapiens* (Moritz 2015, 51–60, and the sources referred to there). The Neanderthal genome sequence even strongly suggests times of interbreeding between Neanderthals and early modern humans. Some theologians have therefore argued that, at least in some sense, these hominin species should be seen as included in the class of beings that bear the image of God (Peterson 2008, 467–74; Craig 2021, 265–329). Other scientists (such as Frans de Waal) have even ascribed elementary moral awareness to animal primates.

However, given the biblical link between death and sin, it is the possibility of sin that is decisive here, and arguably sin only emerges when a certain set moral rule is consciously transgressed. It seems that this can only be done by beings with an advanced level of consciousness—advanced enough to display personhood (Jeeves 2015). It was to such persons, represented by Adam and Eve, that God bestowed his image in entrusting them the task of keeping the earth. John Stott has famously proposed calling this "species" *Homo divinus*, thus making clear that we do not need a precise scientific denominator. What matters is that out of all species, these beings were called to live in conscious fellowship with God (Stott 1972, 63). Biological species boundaries are relatively unimportant here. It is doubtful that we can distinguish any qualitative characteristics that uniquely define the human species (Sober 2006, 334, as quoted by Moritz 2015, 52). Even so, it can be argued that such distinctive qualitative characteristics are not needed to undergird human uniqueness: quantitative differences between species may become so large that, as a matter of fact, in *Homo sapiens*, a qualitatively new phenomenon emerges (Visala 2014,

101–20; see also the work of "saltationist" paleo-anthropologists, e.g., Tattersall 1998, 188). Along such lines, it remains possible to assert that when the Bible speaks about humans, their divinely bestowed vocation, their sin and death, it is the species of *Homo sapiens* that we should have in mind (cf. van den Brink 2020, 146–59; for an alternative view, see Craig 2021, 330–59). In that sense, we may continue to speak about humans and to suggest that those humans who had reached the stage of moral accountability were initially placed by God in an environment in which death did not relentlessly reign. However, theologically nothing would change if it turned out that some Neanderthals also belonged to (or stemmed from) this group.

Thus, we need not be able to draw sharp boundaries here. Both in Genesis and in Paul, the focus is on beings that have sinned (even though that specific verb is not used in the Genesis account) in the sense of breaking a divinely imposed moral rule. Therefore, it is reasonable to suppose that death is a divine judgment only to those and to all of those who have sinned in this way. To be sure, Paul concedes that death even reigned over those who did not sin in the same way as Adam, that is, who did not violate an explicit divine commandment (Romans 5:13). However, this was the case, since, as he argues, they were "in Adam" as their covenantal head when Adam sinned (just as all believers are "in Christ"). We need not be able to specify who exactly are reckoned to be in Adam (only his posterity, or also other groups or even species that were somehow "infected" by his sin?) in order to observe that in *their* case, death was not natural but a divine response to their sinful choices.

In brief, all those who sinned in Adam and/or as Adam missed the God-given opportunity to escape death as the natural endpoint of their created finitude. As John Walton puts it, when people sinned,

> (…) they lost access to the antidote and therefore were left with no remedy and were doomed to die (i.e., subject to their natural mortality). In this case [i.e., Romans 5], Paul is saying only that all of us are subject to death because of sin: sin cost us the solution to mortality, and so we are trapped in our mortality. (Walton 2015,74).[9]

In our terminology, our modal position vis-à-vis death changed from weak to strong mortality: we are no longer able to escape death. Indeed, the meaning of human death can only be fathomed if we acknowledge this element of judgment that is inherent in it. Whereas in the case of other species, death was necessary, in the case of humans, it was not. Unlike other beings, we humans therefore have to face "the full reality of death" (Fretheim 1994, 152; cf. Bimson 2009, 114).

Such a scenario does not conflict with mainstream contemporary science, since it does not presuppose that we humans were physically out of sync with the rest of creation by somehow having "immortal" bodies or

by being exempt from processes of natural selection. In contrast, emerging from earlier primates, we inherited their mortal constitution and their vulnerability to natural selection. We were destined, however, for a future in which death would no longer have dominion over us, as symbolized by the tree of life in the garden of Eden (and returning in Revelations 22). Therefore, the first human beings were kept alive at least until it became clear whether they would choose for or against God's will for them. Had they decided to trust God and move beyond "their lustful, aggressive dispositions" to give precedence to "the more altruistic, co-operative dispositions that would have led them to grow in the knowledge and love of God" (Ward 1998, 133), they would have been enabled to escape death and enter the state of imperishable eschatological life. Instead, they made the fateful choice to follow their evolution-based impulses, thus placing their descendants "in bondage of self and its consequent conflict and suffering" (Ward 1998, 133), including the suffering of death.

Interestingly, Paul follows a similar line of argument in 1 Corinthians 15, where he distinguishes between the perishable and weak natural body with which humans have been created—he quotes Genesis 2 in this connection (1 Cor 15:45), not Genesis 3 as if this perishability were a result of sin—and the imperishable and strong spiritual body with which they will be raised in glory. Paul holds that this is in accordance with a kind of natural order: "it is not the spiritual that is first, but the physical, and then the spiritual" (vs. 46), meaning by "the spiritual" the imperishable state of eschatological existence. As Calvin suggested, humans might have received these imperishable lives much earlier if sin had not blocked the way. A natural moment for this to happen would have been the moment at which humans had acquired a stable moral character—stable enough to consistently stay clear of sin.

To be sure, since processes of aging and eventually dying were most probably ingrained in our physical structures from the beginning, this would have required a special act or arrangement of God. However, arguably such a special act of divine provision (or "miracle") is to be expected anyhow if we try to envisage the transition from our earthly existence to the eschatological life that is to come. No other divine miraculous interventions or special arrangement would have been involved than the one that Christians expect anyhow given their eschatological hope. Moreover, unlike scient*ism*, science itself does not rule out the possibility of such miracles, irrespective of the exact way in which we have to conceive of them.

It may be objected that from a scientific point of view, such a scenario of "human exceptionalism," although possible, is *artificial*, since nothing in nature points in this direction: the origins of human death are identical to those of the death of other animals. That, however, is not a decisive argument against this view, since for Christians, science is not the only source of knowledge. They believe on other grounds that God has acted

and will act in the world and that humans have a special role in God's plan (Genesis 1:26–28). Creating them (unlike the other species) in a state of not having-to-die may have been part of that plan. Nor is it artificial for those who believe in a "life everlasting" beyond the grave to consider that God might have granted humans such eternal life earlier on if they had not sinned, for example, after they had successfully resisted the temptation to turn their back to God and each other. When they failed to do so, however, they became victims of natural selection all the way down to the point of death, similar to all other species: nature turned into their enemy (cf. Genesis 3:17–19), and death became inescapable. From a scientific point of view, it seems that such a scenario can neither be confirmed nor denied. Thus, we can conclude that the ecumenical view on human finitude and death outlined here is compatible with generally accepted scientific standards.

Conclusions

First, we have argued that there is a wide consensus in the Christian doctrinal tradition (starting with Augustine and ranging from Trent and Calvin through Louis Berkhof all the way down to Wolfhart Pannenberg and Thomas McCall) that humans have been created in a state of finitude in the sense of "weak mortality," or more precisely, of posse mori et posse non mori. It required some conceptual clarification—and in particular a disambiguation of the concept of immortality—to see that this is what the tradition actually had in mind when identifying the mode of human created existence. Second, we have seen that this view corresponds to the way in which human death (but not human finitude!) came into the world as a consequence of sin according to Genesis 2–3 and the Pauline epistles. Theologically, the meaning of human death can only be fathomed if we recognize the element of divine disapproval inherent in it—a disapproval of the way post-fall humans live their lives in estrangement from God. After the first humans had turned their back to God, the possibility of non mori no longer remained a "live option"; instead, death became unavoidable, so that all humans now need Christ's saving work to receive eternal life. Third, we have observed that this view of human finitude and death is compatible with contemporary science, including an evolutionary understanding of human origins. Thus, whereas human finitude is part of God's good creation, human death is, in a sense, an inimical intruder which, according to the Christian story, can only be defeated through Christ's death and resurrection.

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Notes

1. I am grateful to Harry Cook for pointing my attention to this paper. Wood shows how "nothing in ecology makes sense apart from death" and then goes on to point out how difficult it is to actually *define* the concept of death (as it is difficult to define its antonym: the concept of life). Given our focus on *human* death, we don't need to go into these debates here; the common view of death (as the cessation of biotic existence) will suffice for our purposes.
2. Indeed, I limit myself here to more *traditional* sources which supposedly have a wide-ranging authority. This is not to deny that more recently much important and creative work on the theology of death has been done by individual Roman Catholic theologians. See e.g., as *pars pro toto*, Rahner 1961.
3. Later on, in his eschatology, Berkhof is a bit more critical of the view that Adam was created in a situation in which he could, but need not, die. He now argues that "man's" being created in the image of God "would seem to exclude the possibility of his carrying within him the seeds of dissolution and mortality" (669); but note the hesitant formulation ("would seem to"), which does not amount to a downright rejection. I am grateful to Hans Madueme for pointing my attention to this later passage in Berkhof's book.
4. I take it that the modal term "impassible" (or "impassable," as in the Roman Catechism; literally: "not being able to suffer") should be unpacked along similar lines as "immortal", i.e. not meaning "lacking the capacity to experience suffering" but "being able (under the right conditions) to consistently avoid suffering."
5. Alexander states that "Genesis 3 provides for us one of the most powerful descriptions of spiritual death in the whole of Scripture." He allows for the possibility, however, that Adam and Eve "also came under the sentence of physical death, which was to happen later" (Alexander 2014, 325).
6. I owe this reference to Alan Love. Also, see the more extensive discussion of Barth's theology of death in Berkhouwer 1956, Ch. 6.
7. For the position of the theistic evolutionist, Grudem refers to Walton (2015, 72-77, 159). By the way, Grudem is open to the view that *animal* death is a natural phenomenon, belonging to God's good creation: "The entire Bible says nothing one way or another about the death of animals before the fall" (Grudem 2017, 809).
8. Note that many scientists prefer some non-adaptive theory of senescence, arguing that mortality rates due to accidents, predation, diseases etc. are often so high that populations do not need (nor seem to have) a "death gene" (i.e., an evolved mechanism to terminate an organism's life at a certain point) in order to survive. From such a perspective as well senescence is theoretically unnecessary. Cf. Kirkwood 1999, 52-62.
9. Note that, contrary to Grudem's claim, in this way Walton actually *affirms* that "human death began as a result of Adam's sin" (Grudem 2017, 810).

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