Human Nature as Imago Dei

with Helen De Cruz and Yves De Maeseneer, "The Imago Dei*: Evolutionary and Theological Perspectives"; Aku Visala, "*Imago Dei*, Dualism, and Evolution: A Philosophical Defense of the Structural Image of God"; Olli-Pekka Vainio, "*Imago Dei *and Human Rationality"; Johan De Smedt and Helen De Cruz, "The* Imago Dei *as a Work in Progress: A Perspective from Paleoanthropology"; Tom Uytterhoeven, "Co-creating Co-creators? The 'Human Factor' in Education"; Johan De Tavernier, "Morality and Nature: Evolutionary Challenges to Christian Ethics"; and Taede A. Smedes, "Emil Brunner Revisited: On the Cognitive Science of Religion, the* Imago Dei*, and Revelation."*

CO-CREATING CO-CREATORS? THE "HUMAN FACTOR" IN EDUCATION

by Tom Uytterhoeven

Abstract. This article presents an example of the contributions the field of science and religion could offer to educational theory. Building on a narrative analysis of Philip Hefner's proposal to use "created co-creator" as central metaphor for theological anthropology, the importance of culture is brought to the fore. Education should support a needed revitalization of our cultural heritage, and thus enable humanity to (re-)connect with the global ecological network and with the divine as grounding source of this network. In the concluding reflections of this article, the possibility of a secular interpretation of "created co-creator," in which "God" is reduced to "evolution," is assessed.

Keywords: created co-creator; culture; education; Philip Hefner; *imago Dei*

My sixth-grade teacher told us that Charles the Great, also known as Charlemagne (742–814 CE), king and later emperor of the Carolingian Empire, invented schools. I immediately held a grudge against Charlemagne, dreaming of an alternative history in which he was slain by a black knight, schools were never invented, and children were allowed to roam free, unbothered by the interferences of adults. I maintained that "Calvin and Hobbes"–like grudge until the time I learned that teaching and

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being taught always have been part of human life. We have to learn to be human; we have to be educated. There are of course other species besides *Homo sapiens* for which learning is an important part of life. However, that kind of learning is foremost about "how" to do things, not about "why" to do them. For human children, the "why" question nevertheless seems natural. For humanity, this question can ultimately lead to an awareness of being part of the "community of life" on our planet. Ecological awareness is a fundamental feature of being human, as we will see throughout this article.

Some have argued that learning is so crucial for our species that it determined the course of our evolutionary history (Konner 2010). The central role of education makes it one of the primal societal areas of concern for the field of science and religion studies. I see three main reasons for this claim. First, insights from "science and religion studies" are relevant for discussions regarding *the content of education*: what should be taught? The relation between religion and science is an intensely debated topic in education, which has become clear from recurrent court cases on the place of evolutionary theory and creationism and/or Intelligent Design in school curricula in the United States, but also from more moderate initiatives like the UK-based educational program, "Science and Religion in Schools" (see www.srsp.net). One's perspective on the relation between science and religion influences one's view on the place of both religion and science in school curricula. Both Richard Dawkins and Daniel Dennett argue, for instance, based on their opinion that science has priority over religion, that religion can only be a legitimate part of school curricula as far as it can help pupils to understand the cultural history of their society, but not as catechesis (Dawkins 2006; Dennett 2006).

The second reason why "science and religion studies" should take education as a theme is *the subject of education*. Most educational theories involve anthropology, an understanding of what it means to be human. Anthropology is used in a descriptive and a normative way. In a descriptive sense, anthropology is the study of humanity, a rich contextual approach that studies human physical characteristics, such as human biological characteristics and their evolutionary history (biological, physical, and evolutionary anthropology), culture (cultural anthropology), and language (linguistic anthropology). It thus requires the contribution of multiple disciplines. Of special interest to education are the insights that descriptive anthropology offers about ontogeny, that is, the development of human beings within their biological and cultural context. Neurology and cognitive science play an important role in this regard. But education requires more than a mere description as these two disciplines provide. That is where a normative use of anthropology plays its role: what do we mean by "normal development," in what way do we want young human beings to develop, what kind of human person (regardless at this point of what we mean by

the term "person") do we want them to become? It is clear that questions like these cannot be answered by science alone. Theology could well contribute to the everlasting quest for answers to those questions, provided it is able to incorporate scientific insights on the descriptive level.

The third reason I see why the field of science and religion and the field of education should interact with each other is *the goal of education,* the question of what education should amount to. There are different answers available to this question, which I will not survey here in depth. Suffice it to notice that education is a societal endeavor, without which cultural traditions would not be able to perpetuate themselves. This observance makes it clear why evolutionary perspectives on culture could be of importance for educational theory. Once again a descriptive and a normative level can be discerned. Education is not only a matter of continuing the *status quo*, it is—maybe even more so—a matter of preparing for the future. And as such, education can only benefit from engaging in dialogue with the field of science and religion studies. This article will develop an example of the way the field of science and religion studies and the field of educational theory can be connected, focusing on the subject and the goal of education. I will show how a theological reflection on *imago Dei* from within the context of a dialogue between theology and science can lead to a new vision on the nature and the subject of education.

As stated earlier, a theological anthropology should in any case be at least aware of what science can tell us about human nature, preferentially it should use those insights as constructive elements of its proposals. Philip Hefner is one of the theologians who has attempted such an endeavor, earning a Templeton Foundation Book Prize in 1995 with *The Human Factor* (Hefner 1993). In this book, he developed the concept of humanity as "created co-creator." Humans, Hefner claims, are the nexus of two streams of information: one genetic, the other cultural. According to him, we have a unique place in global ecology as "created co-creator." We should take up our responsibility and foster new possibilities for the future of Earth's ecological system. Only when doing that do we fulfill our role as "created co-creators," as well as taking up our role in God's plan, as Hefner argues. His theological reflections do not only make us see how we are thoroughly ecologically embedded creatures, but also point to the central role of culture for our species. In this article, I will focus on this central role of culture, and, foremost, on the contribution education can make to the formation of culture, captured in the question that became the title for this article: are we co-creating co-creators through education?

A Narrative Analysis

In my analysis of Hefner's theological anthropology, I will use Marie Vjelrup Nielsen's scheme for narrative analysis to bring out the most striking

features of his argument (Nielsen 2010). In this way, the general intent of *The Human Factor* will become clear even within the limited space this article can offer Hefner's nuanced argumentation. Nielsen sees a close relation between what she calls the *paradigmatic* level and the *narrative* level of a given discipline, without reducing one to the other. The narrative "[. . .] is where the meaning-making takes place, where the scientific insights are taken out of their immediate scientific context and transformed into stories to live by" (Nielsen 2010, 27). She posits that any account of human nature, whether theological or scientific, carries a "story to live by" or a "grand narrative." She defines a *grand narrative* as: "[. . .] a narrative of humanity's past, present and future with an emphasis on the reader/receiver of the narrative being situated in the middle of the story and called upon to respond to the information conveyed in it" (Nielsen 2010, 11). In other words, Nielsen is very careful in stressing that a narrative analysis is about bringing out the meaning that is already present in a given account, and not about adding—"reading into"—meaning to it.

She develops a narrative structure, which can be used to examine the dynamics in a grand narrative and to compare grand narratives with each other. She discerns five basic elements: (1) *Original Situation Pre-Crisis* and (2) *Situation Post-Crisis*, forming the *Beginning of the Story*, situated in the past; (3) *Reality of the Crisis* and (4) *Reality of the Solution*, both defining the *Middle of the Story*, situated in the present; (5) *Solution*, at the *End of the Story* and situated in the future. As Nielsen explains: "The beginning is twofold, since it contains a change from the original state to the state after the crisis; the middle of the story also has a twofold character created by the tension of the crisis originating from the past and the presence of the solution from the future, whereas the end is one-dimensional in its closure" (Nielsen 2010, 30).

Depending on how these elements function in a grand narrative, Nielsen is able to identify two categories of narratives (Nielsen 2010, 244). The first category shows a radical dynamic between crisis and solution: the crisis at hand can be solved by radical means. Examples given are a cosmological battle between good and evil in Manichaeism (Nielsen 2010, 49), death and resurrection of Christ in Augustine's work (56), and rebellion against the tyranny of our genes and memes in Dawkins's books (196). Two subcategories can be discerned in the category of radical dynamics: (1) grand narratives in which the origin of men is regarded as "evil" and humanity has to break with its origin to end the crisis; (2) grand narratives in which the origin of men is regarded as "good," but where a crisis begins precisely because humanity breaks with its origin and is incapable of solving the problems because of this disconnection. Nielsen refers to the work of Richard Dawkins as an example of (1), and as examples of (2) she lists the works of Augustine, Martin Luther, Wolfhart Pannenberg, and Paul Tillich (Nielsen 2010, 244). Besides the category of narratives with

a radical dynamics, grand narratives with a less radical dynamics between crisis and solution form a second category. They describe human origins as fundamentally good. Humanity can find a solution for the crisis by cooperating with the good forces of its origins. This is the fundamental difference between the two categories of narratives: only in the second one does humanity work together with the source of its existence. Nielsen identifies the work of Pelagius, Erasmus, Lynn Margulis, and the later works of E.O. Wilson as examples of this category (Nielsen, 2010, 244). In the following, I will identify the five elements of Nielsen's narrative structure in Hefner's proposal of a *created co-creator*.

(1) The Past: Original Situation Pre-Crisis

The situation before the crisis in the narrative constructed by Philip Hefner is the situation where life began and evolved, first as a genetic stream of information, followed at a certain time in the evolutionary history of Earth's ecosystem by culture as a second, complementary stream of information. According to Hefner, this allowed the global ecosystem the capacity of freedom, through humanity as part of it. Culture and freedom have a direct relation with each other, Hefner states: "Culture is defined as the behaviors we choose, together with the interpretations by which we give meaning and justification to those behaviors—precisely what humans need to supplement their genetically based information system" (Hefner 1993, 158). Culture is crucial for the survival of *Homo sapiens*, because it enabled us to make decisions without having all the required data (Hefner 2003, 160–63). Culture made/makes it possible for humans to structure their world into a more meaningful whole, a symbolic universe (Hefner 1993, 169). From within this symbolic universe, humanity faces the challenges of its environment, the challenges of life.

(2) The Past: Situation Post-Crisis

However, the story has gone wrong. Living in freedom is only possible, Hefner states, from within a symbolic universe or "a myth-ritual complex" (Hefner 1993, 156). Only from within such a meaningful whole can we find guidance for our actions. Apparently we lost the ability to do so: "It is becoming clearer every day that conditions on the planet are moving toward severe crisis precisely because the human sector either does not know properly how to conduct itself or else willfully chooses a path that leads to ever greater distress and breakdown" (Hefner 1993, 4). Our time is a time of moral chaos (Hefner 1993, xiii). We are no longer capable of living in connection with the rest of our ecosystem (Hefner 1993, 66–67, 72) and the gift of freedom seems to have become a curse (Hefner 1993, 121, 133).

(3) The Present: Reality of the Crisis

We once lived in balance with our natural environment, and then we lost our connection with the rest of the ecological web on our planet. This loss of connection is due to a paradox in human's evolutionary history: during our history we discovered and exploited the benefits of culture for our survival, but at the same time culture veiled for us the fact that we are a part of nature. The more culture evolved, the more it seemed we lived in a cultural world that was separated from nature. In our calculations about the future, we thought it unnecessary to take into account the effects of our actions on other life forms.

This immediately highlights the peculiarity of Hefner's analysis. He sees the crisis of our planet not so much as an ecological crisis, but as a cultural crisis: "Our present era presents such radical challenges to us that our ability to assess our world and to construct frames of meaning that will engender wholesome behavior is seriously destabilized and confused. This is a challenge to our ability to fashion a viable system of cultural information" (Hefner 1993, 20). I summarize his long argument for this claim in five points: (a) culture enables humans to make free choices; (b) human choices have a fundamental impact on the whole global ecosystem; (c) human culture is in a state of crisis; (d) this cultural crisis hinders humanity to see itself as part of the global ecosystem; (e) the global ecosystem is driven to a critical edge because of the anthropocentric choices humanity makes. Put in other words: the current crisis of the global ecosystem is caused by a cultural crisis, is caused by the fact that we as a species have forgotten where our cultural heritage comes from and belongs to: the evolutionary history of all life on Earth.

That is precisely the position in which Hefner wants the reader/receiver of his "grand narrative" to be: entangled in the whole network of ecological relations. Thanks to the accumulated effects of natural selection on our species, we have a crucial position in the global ecosystem, Hefner argues. We stand on top of the pyramid in terms of having an impact on other life forms, and we are at the top because we can process, store, and transmit information by cultural means like no other species on Earth is able to. How then, if at all, the reader wonders with Hefner, can we use our cultural powers to save the Earth?

(4) The Present: Reality of the Solution

Hefner pleads for a revitalization of our culture, in particular of our myths, rituals, and our mythical-ritualistic praxis. In his own words: "Revitalizing is essential if the contemporary human and planetary condition is to be interpreted, or thematized, adequately, so as to foster the praxis that is adequately and wholesome for our situation" (Hefner 1993, 225). Revitalizing culture means three things for Hefner: (a) *retrieval*, or bringing

back cultural heritage, as, for example, religious myths, to the memory of the species; (b) *testing*, or connecting classical interpretations of cultural heritage with scientific insights, to see whether these interpretations remain viable; (c) *reformulating*, or bringing about new interpretations of cultural heritage if this has been proven to be necessary in phase (b). A revitalized culture will enable us to do two things: (1) to exercise our human freedom and (2) to enable us to make the optimal choices for the whole of Earth's ecological sphere. In short, revitalizing our myths and rituals will enable a responsible praxis: "Freedom [. . .] is linked with responsibility. The essence of freedom is that human beings can take deliberative and exploratory action, while at the same time they and they alone must finally take responsibility for the action" (Hefner 1993, 30–31).

(5) The Future: Solution

Hefner proposes *created co-creator* as a revitalization of Christian belief in divine creation: "Human beings are God's created co-creators whose purpose is to be the agency, acting in freedom, to birth the future that is most wholesome for the nature that has birthed us—the nature that is not only our own genetic heritage, but also the entire human community and the evolutionary and ecological reality in which and to which we belong. Exercising this agency is said to be God's will for humans" (Hefner 1993, 27). In reconnecting with Christian creation myths through the idea of created co-creator, humanity can regain its ability to find new paths to the future, to see possible alternatives that lead us to an optimal state of the global ecosystem.

Created Co-creator: A Secularized *Imago Dei*?

What can we learn from this narrative analysis? It seems Hefner has written a classical heroic story: the hero (humanity) is faced with a challenge (ecological crisis) and despite setbacks and misfortunes (cultural crisis) succeeds in his mission (to save the planet). However, this interpretation misses an important presupposition in Hefner's work. Although Hefner does not offer a carefully delineated God-image, he definitely starts off from the fundamental belief that God created the universe and still is engaged with His creation (e.g., Hefner 1993, 27, 77–94, 258), that God calls us to take up our moral responsibilities (e.g., Hefner 1993, 241), a call which we can answer out of our free will (e.g., Hefner 1993, 30; see also De Tavernier 2014, this issue). Hefner argues that God acts through evolution. Put in other words, the creation by God through evolution made the emergence of freedom in *Homo sapiens* possible, and freedom—according to Hefner inherently connected with responsibility—is what enables us to solve the crisis.

This makes for a remarkable parallel between Hefner's theology and evolutionary accounts of human nature and culture. One could say, using broad strokes, that according to evolutionary theory (a) *Homo sapiens* emerged through evolution, (b) evolutionary processes led to the existence of culture, and (c) culture is what enables *Homo sapiens* to determine the future of the global ecosystem. Evolution and God thus seem to become replaceable concepts. This calls for further theological investigation. How can Hefner's approach of the relation between God and creation avoid making God into an epiphenomenon? Can his account of human nature as created co-creator retain its meaning without reference to God? Do we still need a God-concept? These questions are at work in real life, as my experience as a lecturer in religious education at Thomas More University College made me realize. When discussing the concept of created co-creator with my students, I noticed that some of them read "created co-creator" as: "created by evolution and connected with nature." Notice the disappearance of God! This is not to say that Hefner himself goes that way. As he warned his readers: "This may work out" (Hefner 1993, xiv), but there is no guarantee. That seeing humans as created co-creators could lead to a secularization of *imago Dei* is important nonetheless, because here precisely lays the crux of Hefner's narrative, as we have seen: humans are not the heroes of the story, God—acting through evolution—is. The theological *grand narrative* Hefner proposes is, according to Nielsen's scheme of narrative analysis, a narrative with a less radical dynamics between crisis and solution. It is, thus, a narrative in which humanity has to reconnect with its origins to be able to find solutions for the crisis at hand. Hefner is aware of the possibility of reading human arrogance into his concept of created co-creator (Hefner 2003, 236) and makes it quite clear that he rejects this: "The status of created co-creator is not a matter of either arrogance or subservience. Rather, it is a matter of depicting what it is about *Homo sapiens* that has to do with what really is" (Hefner 1993, 240). Foremost, Hefner makes us see how human nature is part of the whole of nature but at the same time needs constantly—every generation—to be reminded about this connection. This brings me to a reflection on the relation between culture and the encounter with the divine.

Encountering the Divine: Sacred Ground is Cultural Ground

The memory of our ecological embeddedness depends on the revitalization of our myths. Hans Küng makes a telling remark about Biblical creation myths in this regard: "In one way or another the creation story is not an end in itself; rather; it is meant to help to locate human life in a cosmic order and so to make it possible for human beings to live an authentic life in harmony with the world" (Küng 2008, 110). Metaphysically, I would

propose to see our species as emerging from the universe (cf. Southgate 2005, 196). Leaving aside the question whether this emergence is contingent or determined, I want to describe *Homo sapiens* as a species that is aware of *cosmos* (Coyne and Omizzolo 2002)—meaning, that it is aware that there is a universe, that this universe can be seen as ordered, and that this order raises questions about the meaning of its existence—and that it expresses this awareness. Throughout history, this awareness has led a number of cultural communities to the belief in a Creator God. In this picture, the narrative stories of Christianity are cultural artifacts that bear testimony to the way a particular people has dealt with their awareness of the cosmos. Cultural artifacts like these have a powerful influence on people.

However, this *does not* mean that speaking of God is an evolutionary illusion. Contrary to Daniel Dennett, who argues this, based on his view on the implications of evolutionary theory for culture (Dennett 1991, 1995, 2006), I believe accepting cultural evolution does not lead to the conclusion that religious beliefs are meaningless, *nothing but* an effect—maybe even just a side-effect—of natural selection. A theological reflection on cultural evolution can lead us to a level of reality where I believe we can speak about God's actions in a way that both respects what science teaches us about the world, and that takes into account what theology learns about God. Attempts to locate divine action on a physical, biological, or psychological level all have their setbacks. On the physical level we seem to lose sight of the personal character of a God who "can be addressed" (Küng 2008, 117), on the biological level we have to deal with the relationship between imperfect design and God's intentions, on the psychological level we face the question whether religious experiences are illusions or not. Together with the Dutch theologian Taede Smedes (2004), I think science cannot have the last word about God. However, in a world where science has an enormous influence on the way we see the world, we have to consider its results when trying to conceive of a God who "interrupts history" (Boeve 2007). The cultural level of reality may be the right arena to do this.

A thought experiment can clarify what this means. Suppose someone, 30,000 years ago, witnessed lightning striking down on a tree. This event could, for different reasons, make a profound impression on this human observer. From the moment on that he or she, with whatever intention (see van Huyssteen 2006, 183, for a discussion of the ambiguity of Paleolithic art for modern humans), placed a drawing on a cave-wall, picturing what happened with that tree, a new environment was created. We could call this kind of environment a symbolic environment. A symbolic environment is able to keep the memory alive of a moment in time when a human being experienced *cosmos*: the universe as an ordered reality. This symbolic environment will change the way people live, due to the memory/memories it contains, but its inhabitants will also transform it.

Environment and inhabitants both are partners in a continuous feedback relation (Laland and Odling-Smee 2000, 121–41). So a symbolic environment is a medium where human selves can incorporate God's intentions, because within it people can attribute natural events to an intentional object as the source of their experiences. As Nancey Murphy states: "What makes the experience religious is a meaningful combination of ordinary experiences, under circumstances that make it apparent that God is involved in the event in a special way" (Murphy 1998, 143). Dennett has suggested how this intentional object could evolve to become, for instance, the Christian concept of God (Dennett 1991, 2006). What he does not recognize—but what we can do within the Christian tradition—is to make a distinction between any concept of God and the being of God, God as Him/Herself.

It is beyond the scope of this article to provide further reflection on how this intentional object, using Dennett's notion of the intentional stance and the self as a narrative center of gravity, could be regarded as an agent, a subject. I can only suggest here that this cultural image of God could interact with human selves by virtue of the artifacts human culture. These artifacts themselves are not the exclusive carriers of meaning, but they do carry the intentions of their makers and they are capable of enabling people to deal with what they experience. Thanks to culture, humans position themselves in the universe, which then becomes *cosmos*. This complex process, which should be described in more detail, does accord with Philip Clayton's remark "that all natural influences on the affective or mental state of persons are mediated through some sort of physical inputs to the person" (Clayton 2004, 198–99). I believe Clayton's statement points to divine action through culture as immanent to the world: cultural artifacts, the brain states of its users, and their actions are natural processes. Nevertheless, at the same time a view of divine action through culture would be transcendent, emerging from the interaction within the symbolic environment, but not reducible to either of the parts of this environment. This opens up the question whether or not it would be theologically fruitful to make a distinction between divine action through natural processes, which is in my view not discernible from those processes themselves, and divine action through cultural processes, which is recognizable as the acts of a personal God. One can, for example, as Hefner does, see biological evolution as a mediation of God's creative acts. But when in dialogue in a pluralistic context, moreover when engaging in dialogue in a secular context, one will not be able to avoid a secular reduction of what the theologian calls "divine action" to natural processes. The most one can agree on is that there is a difference in perspective, as we have seen earlier. This calls for a different approach. I do not claim that God is unable to act through nature, or that one cannot make faith claims about them. I only claim that the level of reality where God-talk is most fruitful, as

part of a dialogue between science and theology (in a broader sense as part of theology in a secular context), is the cultural level. A cultural view on divine action leaves room for a theological perspective of God's relation with humanity—pneumatology seems promising in this regard—that avoids turning God into an epiphenomenon, something theology adds to reality without it having any ontological basis. What we need to further construct this view are (a) a thorough analysis of human cognition, (b) an evolutionary account of culture, and (c) a clear understanding of the relation between cognition and culture. My basic hypothesis for further research would be the following: seen from a human point of view, cultural artifacts enable people to acknowledge their awareness of *cosmos*, and to live by it (see, e.g., De Smedt and De Cruz [this issue] for a discussion of the relation between shared attention, cumulative cultural evolution, and building relations). In the cultural context of Christianity this means, "living by the word of God." Seen from what we could call "God's point of view," cultural artifacts are ways to call people and ask them to participate in building up a *cosmos* out of a *universe*.

In the space between natural events, human witnesses of these events and cultural artifacts bearing testimony of them, we change the question "How to survive?" into "How to live?" It is only from within our cultural niche that we can reach for the meaning science denies the universe to have. As William Shea argues, we should bear in mind the notion that "God chose to reveal only what could not be discovered by the light of reason; the rest he left to human disputation" (Shea 1986, 120). Locating divine action, or rather, the actions of a personal God at the cultural level of the universe makes it possible to take the intentionality of God into account without losing human freedom, allowing to incorporate both indeterminacy and determinacy in the way an evolutionary account does. It accepts the legitimacy of research on religion as a natural phenomenon, but demands the same for the distinctiveness of the religious viewpoint on its own tradition. It makes it possible to think about the relation between divine action and evolution without necessarily turning God into an epiphenomenon, and to reflect on the fragile relations between (a) experience, (b) interpretation of experience, (c) expression of experience, and (d) the source of experience, without reducing one or more of these elements to a single one of them. Some questions this view raises concern (1) the intelligibility of God as Creator, (2) the relation between different religious traditions as based on inherited experience(s), (3) the possibility of divine revelation outside human cultural expressions, and (4) the role of cultural education in revelation. All of these questions could well inspire further research.

Connecting through Education

Although I argue that the possibility of a secularization of the concept of "created co-creator" has to be taken seriously, and poses a possible threat to the development of a fruitful theological anthropology, this may be an exaggeration. Perhaps my background as a teacher makes me distrust the creativity of what can happen when things are not totally under control, maybe I am too accustomed to "guiding events to a desired outcome," using this kind of reasoning: "If I just use the right didactics, then my students will realize that humanity and God are related to each other, that you cannot think about humanity without acknowledging its creatureliness." Maybe I should trust a bit more in what this creatureliness means, following Philip Hefner's reflections in his short, but thought-provoking book *Technology and Human Becoming* (Hefner 2003). In it, Hefner presents a further development of his treatment of technology as part of culture in *The Human Factor*. He suggests that technology has a religious dimension at its core (Hefner 2003, 73). Technology is not something outside humanity; it is a part of being human (Hefner 2003, 13–27, 74–75). As such, "[. . .] humans and their technology are a set of nature's possibilities" (Hefner 2003, 77). As in *The Human Factor*, it is the ecological embeddedness of humanity that leads Hefner to further reflections on what it means to be human. He puts creativity and the ability to create meaning forward as hallmarks, not only of human nature (Hefner 2003, 43–56), but also of the nature of reality and the nature of God (Hefner 2003, 81). The quest for meaning is not an illusion for Hefner, as it is for Daniel Dennett. This quest is a fundamental characteristic of reality itself, he claims:

> The profound, and perhaps ironic, fact here is that we must discover whether there is deeper meaning to the struggle for transcendence, and we must construct and create that meaning. If the meaning was given to us, like tablets of gold buried in the earth or tablets of stone brought down from the mountaintop, it would mean that final meaning does not require our self-transcending act of creation. It would mean that, at its depth, reality is not a self-transcending mystery, but a set of prearranged meanings and truths. The very fact that the world appears to be random and void of meaning unless we create the meaning leaves open the possibility that self-transcending itself is an ultimate reality. Reality is this self-transcending freedom to imagine and to believe in what is imagined. (Hefner 2003, 85)

Maybe I should acknowledge the importance of freedom and creativity more as a teacher. Maybe I should leave more room for a free encounter between God and my students and a growing relationship between them. In other words, when my students identify "evolution" instead of "God" or "the divine" as the agent of creation, this may be just one of many moves in their "struggle for transcendence." (See in this regard Smedes 2014, this issue, for a discussion of revelation as an embedded, embodied, and

enactive process of discernment). Could it be justified from a theological point of view, to see this not *a priori* as a secularization of the *imago Dei*, but as the way God invites us—people like you, me, my students—to encounter Him today, in this age of science? We cannot be sure where this encounter will lead nor in what way it will be expressed in our symbolic world. As Hefner states: "This is the leap of faith, to wager that the search for meaning is in fact the meaning. God has created us for this, to create meaning in freedom with no deterministic programming to do so" (Hefner 2003, 86). What I would add to this, believing it is in line with Hefner's general intention (see, e.g., Hefner 1993, 153), is that the creation of meaning is not an individual enterprise, but part of a larger adventure: the whole of humanity's cultural history. I would do my students little service if I did not make that history available, intelligible to them.

I believe that this last point is what a narrative analysis of Philip Hefner's proposal to see humanity as "created co-creators" has shown us: that education is the key. Education can make the difference between wanting to subdue nature or to live in coexistence with nature. Or rather, the choice between those two alternatives determines which kind of education will be practiced. Only through an education that revitalizes our cultural heritage can we rediscover who we as humans are, how we are part of the whole of life on Earth, and how we can use our power to imagine the future for the benefit of the global ecological community. This means that we have to look for forms of education that enable a radical connection between humans, both on individual and species level, and nature. Young humans have to learn how to live in a cultural world to be part of the natural world. This also means that they have to be introduced to the formidable metaphorical power of human cultural heritage, that they have to be enabled to engage in a creative dialogue with that heritage and that they thus can for themselves enter holy ground as Moses once did when he was alone in the desert (Exodus 3), where others would only see a stretch of sand. This finally means that we have to engage further in the dialogue between religion and science. There is a growing body of literature about how evolution structured our brain and about the relation between human mind and human culture, showing in ever more detail the way we are part of nature. Evolutionary psychology shows us how and why it is that humans have to learn. In my view, every teacher should learn what evolutionary theory can tell us about how culture is embedded in the history of life and how it is related with our species. Education is more than just training children to become good-behaving civilians and productive members of society. Education should be more than mere socialization. What I hope will emerge from the dialogue between theology and science, in particular from the dialogue between theology and evolutionary theory, is a view on education that puts "becoming created co-creators" at the center of its praxis. We need to offer the field of education a reference frame that enables educators to see a child as being radically connected, and in need

of a growing awareness of this connection to become human in the fullest sense of the word.

Note

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References

Boeve, Lieven. 2007. *God Interrupts History: Theology in a Time of Upheaval*. London, UK: Continuum.

Clayton, Philip. 2004. *Mind and Emergence: From Quantum to Consciousness*. Oxford, UK: Oxford University Press.

Coyne, George V., S.J., and Alessandro Omizzolo. 2002. *Wayfarers in the Cosmos: The Human Quest for Meaning*. New York, NY: The Crossroad Publishing Company.

Dawkins, Richard. 2006. *The God Delusion*. London, UK: Bantam Press. De Cruz.

Dennett, Daniel C. 1991. *Consciousness Explained*. Boston, MA: Little, Brown.

———. 1995. *Darwin's Dangerous Idea: Evolution and the Meaning of Life*. New York, NY: Simon & Schuster.

———.2006. *Breaking the Spell: Religion as a Natural Phenomenon*. New York, NY: Viking Press.

De Smedt, Johan, and Helen De, Cruz. 2014. "The *Imago Dei* as a Work in Progress: A Perspective from Paleoanthropology." *Zygon: Journal of Religion & Science* 49:135–156.

De Tavernier, Johan. 2014. "Morality and Nature: Evolutionary Challenges to Christian Ethics." *Zygon: Journal of Religion & Science* 49:171–189.

Hefner, Philip. 1993. *The Human Factor: Evolution, Culture and Religion*. Minneapolis, MN: Augsburg Fortress Press.

———. 2003. *Technology and Human Becoming*. Minneapolis, MN: Fortress Press.

Konner, Melvin. 2010. *The Evolution of Childhood: Relations, Emotion, Mind*. Cambridge, MA: Harvard University Press.

Küng, Hans. 2008. *The Beginning of All Things: Science and Religion*. Grand Rapids, MI: William B. Eerdmans.

Laland, Kevin, and John Odling-Smee. 2000. "The Evolution of the Meme." In *Darwinising Culture: The Status of Memetics as a Science*, ed. Robert Aunger, 121–41. Oxford, UK: Oxford University Press.

Murphy, Nancey. 1998. "Nonreductive Physicalism: Philosophical Issues." In *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*, ed. Warren S. Brown, Nancey Murphy, and H. Newton Malony, 127–48. Minneapolis, MN: Fortress Press.

Nielsen, Marie V. 2010. *Sin and Selfish Genes: Christian and Biological Narratives*. Studies in Philosophical Theology 44. Leuven, Belgium: Peeters.

Shea, William R. 1986. "Galileo and the Church." In *God and Nature: Historical Essays on the Encounter between Christianity and Science*, ed. David C. Lindberg and Ronald L. Numbers, 114–35. Berkeley: University of California Press.

Smedes, Taede A. 2004. *Chaos, Complexity, and God: Divine Action and Scientism*. Studies in Philosophical Theology 26. Leuven, Belgium: Peeters.

———. 2014. "Emil Brunner Revisited: On the Cognitive Science of Religion, the *Imago Dei*, and Revelation." *Zygon: Journal of Religion & Science* 49:190–207.

Southgate, Christopher. 2005. *God, Humanity and the Cosmos*, 2nd ed. London, UK: T&T Clark International.

Van Huyssteen, J. Wentzel. 2006. *Alone in the World? Human Uniqueness in Science and Theology*. The Gifford Lectures. Grand Rapids, MI: William B. Eerdmans.