Abstract

With the development of niche construction theory, a recent expansion of evolutionary theory, evolutionary anthropologists describe human beings as fundamentally relational organisms, affected by our environmental niches while at the same time actively constructing them. Niche construction theory can function as a framework to foreground the relevance of traditional Catholic theological anthropologies in a context of climate change. By placing niche construction theory and Edward Schillebeeckx’s theological anthropology in dialogue, I argue that the humanum presses us to create the conditions for a livable human niche and resiliently adapt to the pressures that our environment exerts upon us.

Keywords: theological anthropology, evolution, climate change, suffering, Edward Schillebeeckx
Introduction

In their designation of human beings as *imago Dei*, traditional Christian theological anthropologies can tend to foster an attitude of human exceptionalism that positions humanity and the rest of nature dualistically, and which imagines humanity’s vocation as exercising dominion over this separate sphere. In this anthropology, human control and agency is king. Contemporary feminist, liberationist, and ecological theologians have begun to question this characterization of the relationship of humans to the natural world (McFague 1993, 2008; Ruether 1992, 1996; Primavesi; Deane-Drummond; Johnson). Instead of placing a priority on autonomy from and control over the natural world, these voices suggest we understand humanity as existing within a network of natural and social dependencies. Interestingly, a different trend has played out within science. Evolutionary theorists have tended to underplay human agency (and consequently responsibility) and overplay the role of genetics (Laland et al. 2014; Marks; Feder and Marks; Jablonka and Lamb; Lewontin; Nelkin and Lindee). However, this is beginning to change with the emergence of niche construction theory, which conceptualizes all organisms as embedded within a network of relationships. In niche construction theory, human beings in particular are “master niche constructors” whose actions shape the futures of all other organisms within their niche.

In a way, it can be said that as theologians and scientists both become more aware of the realities of human-induced climate change, both also become aware that human beings are fundamentally relational – we are neither passive vehicles for genes nor wholly active controllers of our own destiny and environment. We are stewards of the natural world, but we are also stewarded by it. We are actors and we are also acted upon. Human beings are wholly embedded in the natural world, for better or for worse. Pope Francis, in his encyclical *Laudato Si’*, has joined the chorus of ecologically minded theologians who proclaim that concern for creation and our place in it is essential to Christian faith and ethics. In calling attention to human responsibility for the earth in the face of the realities of human-induced climate change, he has begun to introduce a more relational anthropology into popular Catholic thought and practice. *Laudato Si’* has been welcomed by many scientists who find surprising points of dialogue and shared ecological concern with theologians. Its warm reception lends momentum to a timely and urgently needed, but still developing, conversation on the shared methods, commitments, and insights between theology and contemporary science.

Joining this momentum, I argue in this article that theologians and scientists can agree that we do not just happen to live in the natural world, but rather that we are wholly embedded...
within it. More specifically, human beings are fundamentally relational organisms, affected by our environmental niches while at the same time actively constructing them. With this relational orientation comes a responsibility to create a livable niche. Edward Schillebeeckx, the twentieth-century Catholic Flemish thinker and Dominican priest, can be a helpful resource in a dialogue between theologians and scientists given his longstanding concern with the doctrine of creation and his concern for the *humanum*, his term for the eschatological nature of humanity that is not yet wholly manifest in human history, but which still calls us forth from the depths of human experience. Schillebeeckx is perhaps best known for his claims in the area of theological anthropology, especially as they relate to experiences of human suffering. Schillebeeckx argues that God does not want human beings to suffer (2014a: 717-23) and Christian salvation is expressed in the whole and healed human being (741). He arrives at his claims through a fresh look at the Christian tradition in light of contemporary forms of experience, particularly the barbarous forms of systematic suffering that characterize human communities. Though his writings do indicate an openness to contemporary thought and even specifically scientific perspectives on the shape of the human person and human history (see Schillebeeckx 2014d), he does not engage in dialogue with evolutionary theory in his work with any depth. In this essay, I will explore Edward Schillebeeckx’s theological anthropology in conversation with contemporary developments in biological anthropology, particularly the emergence of niche construction theory as an expanded form of evolutionary theory. Niche construction theory can function as a framework to foreground the relevance of Schillebeeckx’s anthropology in a context of climate change. Using this dialogue, I will suggest that, correctly understood, the *humanum* presses us to create the conditions for a livable human niche and resiliently adapt to the pressures that our environment exerts upon us. I begin by explaining how niche construction theory corrects for deficiencies in previous evolutionary theory, and opens up new possibilities for collaboration across disciplinary lines on important questions. Then, I will examine the ways in which both evolutionary anthropologists and Christian theologians understand human nature as a relational and dynamic process. Finally, I argue that Christian theology can benefit from a niche construction framework since it helps to locate human beings in the natural world that they both construct and are constructed by. Christians can understand salvation as dynamically unfolding in the interplay between human beings and their ecological niche. That is to say, for contemporary Christians, human nature is eschatological – both undefinable and in process. Consequently, salvation is the process of becoming fully ourselves and creating a livable human niche.

The Extended Evolutionary Synthesis: A Corrective to Standard Evolutionary Theory

Standard evolutionary theory has traditionally emphasized natural selection, alongside genetic drift, as the mechanism by which species change over time. This characterization of evolution foregrounds the role of genes: individuals well adapted to their environment pass along their genes to the next generation. Over time this ensures that the most common biological traits in a population are those that are best suited for the environment in which the population lives. In other words, the process of reproduction naturally selects for a species’ most adaptive genes within that particular environment.

But many evolutionary theorists today are beginning to offer a different, more complex portrait of the process of evolution. This “extended evolutionary synthesis” (Laland et al. 2014,
calls to attention the role of other factors in evolution, particularly the ways that organisms actively build and destroy niches in their environments. Niche construction describes a dynamic of mutual feedback between organisms and their environments: organisms modify their environments, both destroying and generating selected characteristics within them, and environments exert pressure on organisms, providing hospitality to those who can adapt to life within them and inhospitality to those who cannot (Deane-Drummond and Fuentes: 252; Fuentes 2014: 244; Odling-Smee, Leland, and Feldman). This interactive relationship itself is an organism’s niche. “Niche” thus refers not only to the ecological landscape that a species inhabits and actively constructs, but also to the social behaviors that a species develops in that landscape, particularly patterns of learning, relationship, skills, and beliefs (Deane-Drummond and Fuentes: 252, 255-56; Fuentes 2015). Niche construction theory is a key component of the extended evolutionary synthesis that challenges the way that standard evolutionary theory has historically tended to fail to notice the ways that organisms play an active role in their future survival or destruction. Niche construction theory insists that natural selection and niche construction are complementary and intersecting evolutionary forces (Fuentes 2014: 244). Most significantly, niche construction theory provides a portrait of humanity as a species that has constructed our natural world even as it has simultaneously constructed us.

Thus, where standard evolutionary theory has a language to describe the process of genetic inheritance alone, the consideration of community niches in the process of evolution introduces language to describe the process of ecological inheritance. Ecological inheritance “comprises whatever legacies of modified natural selection pressures are bequeathed by niche-constructing ancestral organisms to their descendants” (Odling-Smee, Laland, and Feldman: 13). This is a more expansive and pliable descriptor for processes of inheritance since it captures the transfer of more than simply genes. Ecological inheritance can refer to physical changes in local environments or forms of knowledge and cultural practices. Ecological inheritance does not only describe the linear process of parents passing along replicas of genes to children, but can also describe the ways that children can affect the niche of their parents, and how different species may affect the future of each other (i.e., allowing ancestors to be defined more broadly than genetic relationship). Consequently, acquired characteristics and cultural factors can be understood to act as evolutionary forces (Odling-Smee, Laland, and Feldman: 21; Kendal et al.). As biological anthropologist John Odling-Smee and biologists Kevin Laland and Marcus Feldman argue, “cultural processes are not just a product of human genetic evolution, but also a cause of human genetic evolution” (27). In other words, organisms are affected by natural selection, but organisms do niche construction (Odling-Smee, Laland, and Feldman: 1). This perspective of human history helps us move beyond viewing humans as merely “passive vehicles for genes,” and helps us see how we are also active modifiers of sources of natural selection (28).
“Human Nature” and the Human Niche

Because of the complexity of human culture, human beings are master niche constructors (Odling-Smee, Laland, and Feldman: 28). Humans have a unique capacity for language and very high levels of shared intentionality as well as behavioral and cognitive coordination. As we consider the ecological crisis of the Anthropocene, it can be particularly appropriate to consider the human aptitude for niche construction. Humans construct ecological niches that affect the future of humanity as well as the present and future of all other organisms living within these environments. Though cultural practices may have originated with a concern to improve the human quality of life (think agriculture), these cultural practices may end up maladaptive (think factory farming) – that is, they may negatively affect our future and the futures of those other organisms upon which we depend (Diamond).

From this perspective within biological anthropology, “human nature” is not a fixed concept, but rather is “a process as humans become themselves” (Fuentes 2013: 110). In the context of evolutionary history, human beings are not static creatures, but rather are creatures who have created a distinctive (yet also continually developing) niche. As biological anthropologist Agustín Fuentes writes, “We (Homo sapiens sapiens) are a species that had a hand in making itself” (2014: 242). “Human nature” is a process in which we participate. Our identity is a product of our history of niche construction – that is, it is a product of the relationships we have negotiated within our landscapes. As we will see, Christian theology similarly views human nature as a dynamic reality, constituted at once by a history of relationships. Yet, theologians differ from anthropologists to the degree that they understand this nature as promised eventual fulfillment.

Though biological anthropologists are hesitant to define humanity in a positivistic fashion, anthropologists do argue that humans have created a distinctive niche. The distinctively human niche can be described by two related characteristics: obligate interdependence and symbolic thinking. Together these produce very complex forms of sociality. In both of these critical designators of humanity and especially in the points in which they intersect and depend upon each other in symbolic sociality, imagination reveals itself as a key characteristic of human ways of being and relating to each other (Fuentes 2014: 241-57; Deacon; Bloch). The symbolic, social imagination has emerged in modern humans in the context of relationships to other organisms within our niche(s), including the successful negotiation of modes of securing food (e.g., hunting, scavenging, foraging) and modes of avoiding becoming food for other organisms.

Contrary to the impression that one might get from the Genesis narrative in which humans are given dominion over the natural world from the first moments of their entrance into creation, for the majority of hominin history, humans have been hunted by predators and have experienced ourselves as animals of prey (Hart and Sussman; see also Deane-

---

4 See also Hardesty who explains that the flexibility of human beings has allowed them to adapt to a diversity of ecological environments. In general, broad and pliable capacities prove to be more adaptive for a species than very specialized capacities.

5 See Simkins for a discussion of the limits of human dominion in Genesis. He argues that the Israelites expressed a hope for dominion, graced by God’s blessing, but did not experience this as a present given reality.
Drummond and Fuentes: 261). This status as “the hunted” or “the threatened” has influenced the trajectory of human evolution in significant ways, in particular constituting us as a deeply social, cooperative, and interdependent species with symbolic capabilities. Ironically, this has given us the capacity to organize human societies in ways that made human dominion later possible. In other words, much of the social complexity of the human niche is related to successfully negotiating our relationships with other organisms, particularly securing food while avoiding becoming food. Journalist Barbara Ehrenreich dramatizes what this experience might have felt like for early hominins as she writes,

We were not given dominion over the earth; our forebears earned it in their long, nightmarish struggle against creatures far stronger, swifter, and better armed than themselves, when the terror of being ripped apart and devoured was never farther away than the darkness beyond the campfire’s warmth. . . .

The original trauma – meaning of course, not a single event but a long-standing condition – was the trauma of being hunted by animals and eaten (46-47).

The effects of this “original trauma” live on in human beings in our evolutionary development as highly cooperative, interdependent social beings and in our capacity to communicate symbolically, especially in the absence of a proximate reference (Deacon: 82). Early hominins developed an upright posture and lived in social groups so as to increase the chances that at least one individual in the group might detect a predator before an attack. They developed symbolic forms of communication in order to better transfer information about what to do in the midst of a predator attack (e.g., coordinate group effort to mob large animals), tell stories about successful avoidance or counter-attack of predators, and give directions about where and how to procure scavenged meat and plant foods (Hart and Sussman: 165-90; Deacon: 28). In particular, the social configuration of human groups creates the conditions for cumulative cultural modes of learning – that is, it allows for generational development of skills necessary for using and producing weapons and tools as well as the continued improvement of these technologies in a ratcheting fashion (Tomasello, Kruger, and Ratner; Tomasello: 5ff; Sterelny; Kendal). In addition, symbolic thought encouraged the kind of stabilization of social roles that further promoted the survival of the group as a whole (particularly, care for the elderly as they are often stores of hard-won knowledge sensitive to the particular ecology within which the group lives) (Bloch). This is to say, we have come to be who we are in the context of negotiating relationships with other organisms in our niche(s). As much as the development of these distinctively human capacities – namely, symbolic cognition and communication, cultural modes of learning, and stabilized symbolic social roles – have paved the way for human evolutionary success, they have also created the conditions for ecological crisis and, ultimately, significant human vulnerability. Symbolic cognition and communication, especially language use, opened our species to the kind of behavioral coordination and technological development that is required for the discovery of uses for fossil

---

6 For an alternative view, see Dart who has argued that the first hominins were not prey but rather blood-thirsty predators.

7 Archeological evidence of symbolic forms of sociality can be difficult to identify and date, but anthropologists are beginning to make a strong evidence for archeological evidence of human symbolic action as early as 1 million years ago – much earlier than scholars had previously hypothesized (Kissel and Fuentes: 149-50).
fuels and for the development of methods of extraction. The Industrial Revolution would have been impossible if our species had not been capable of high-fidelity cultural learning. And, stable symbolic social roles provide a foundation for “transcendental social” (Bloch) human categories such as race and class which, in turn, animate the deferral of the costs of resource consumption from privileged human communities to vulnerable human communities.8


This evolutionary perspective on human nature in the context of niche construction theory resonates in some interesting and helpful ways with Christian theological claims about human nature. When niche construction theory is used as a contemporary framework for making sense of who humans are and what they will be in context of climate change, I argue that Christians can think of humanity as determined in history (Schillebeeckx 2014a: 726), shaped by experiences of both suffering and positive meaning as we negotiate our relationships with each other and other organisms, and awaiting eschatological fulfillment which is, in the end, a perfection of our relational nature (Feder).9

Edward Schillebeeckx devotes his book, Christ: The Experience of Jesus as Lord, to articulating a theory of grace or a soteriology based on the experiences of the early disciples as recorded in early Christian history (2014a: 3). Interestingly, embedded within this soteriology is his description of the dimensions of human being, including his famous anthropological constants (2014a: 728ff). This is because, for Schillebeeckx, salvation is God’s process of bringing humanity to its fulfilment. In other words, salvation is the process of humans becoming themselves in the fullest way possible. Therefore, Schillebeeckx’s theological anthropology is fundamentally soteriological and eschatological. In one way, we are already human. But, in another way, we are not yet fully human since we are still in need of the fulfillment that God’s saving grace will bring in order to become fully ourselves. Like many contemporary biological anthropologists, Schillebeeckx would not think of “humanity” as a fixed concept, but as still unfolding in the process of history.

For Schillebeeckx, an eschatological proviso ensures that the fullness of humanity is not identical with humanity in its current state, while for anthropologists what humanity is is not identical with what humanity will be simply because the process of human evolution continues.10 In other words, the promise of salvation inflects Schillebeeckx’s description of

8 A changing global climate affects human communities unequally. Developing countries are most vulnerable to environmental degradation (Francis: 25) and within developed countries, poor and non-white people are most negatively impacted by environmental pollutants (e.g., Bosman, Davey, Smith) and environmental disasters (e.g., Wamsley).

9 Anthropologists might name the anticipation of a greater future as an evolutionary force in the development of our species, though they cannot articulate a grounding for this hope (Fuentes 2015). This points to another advantage to niche construction theory over standard evolutionary theory since niche construction theory allows for the articulation of culture and community beliefs as evolutionary forces in addition to genetic characteristics. See Kendal et al. who argue that niche construction theory is particularly useful insofar as it encourages interdisciplinary conversations about the nature of reality.

10 In fact, some anthropologists argue that human evolution has been accelerating (Hawks; Cochran and Harpending).
humanity in significant ways. Humanity is not just historical but, more specifically, it is eschatological. Schillebeeckx is convinced that salvation is not yet “objectively completed” because of the enduring presence of senseless suffering in human experience (2014a: 9).

Senseless suffering, for Schillebeeckx, can never be part of fully redeemed human life. Some experiences of suffering can make one wiser or more sensitive. Some experiences of suffering can be transformative, especially when they are freely accepted as a consequence of one’s commitment to a good and worthy cause. Yet, Schillebeeckx argues that there is a “barbarous excess” of “unmerited and senseless suffering” in our history. This kind of suffering is “the alpha and the omega of the whole history of mankind; it is the scarlet thread by which this historical fragment is recognizable as human history” (2014a: 718). The horrors of World War II and Vietnam animate Schillebeeckx’s reflections on senseless suffering (2014a: 718), but we can add the massive climate displacement of peoples and destabilization of governments that has already begun and will continue to accelerate in the coming decades (Benko). This kind of suffering cannot have any “specific structural place in the divine plan” (Schillebeeckx 2014a: 718). Therefore, this kind of suffering is incompatible with salvation as it has been promised to humanity.

Schillebeeckx argues, from his Thomistic roots, that we cannot look to God as the source of human suffering. God does not will human suffering, but instead is the “author of good and the opponent of evil” (2014a: 720). Therefore, God only desires our wholeness. God’s desire for human wholeness is embodied in the resurrection of Jesus – an action in which God “conquers suffering and evil and undoes them” (2014a: 722) and achieves in a partial and fragmentary way “true and good, happy and free humanity,” i.e., some measure of human salvation (2014a: 723). We can give human reasons for this kind of suffering but not a cosmic reason. We can explain how this happened (especially with reference to human sin, but we cannot “give it an understandable place in a rational and meaningful whole” (2014a: 718). We cannot offer a cosmic explanation of this kind of suffering. We can only refuse this kind of evil the right to exist – that is, “to act in a way meant to turn history to good effect . . . [to] espouse the cause of the good and refuse to treat evil on the same level as the good” (2014a: 719).

From this viewpoint, the fullness of human salvation is only realized with the eschatological transformation of the world and is characterized by the complete defeat of suffering and a comprehensive resistance of evil. Salvation is fulfilled only when it is universal.11 For now, however, we only sense the fullness of humanity, the shape of the eschatological _humanum_, in hints and contrasts. We live in an “eschatological borderline” in which full salvation is “hidden . . . merely announced and promised” (2014a: 740). On the one hand, we can have some positive hints about what final, perfect salvation may be because of “partial experiences of meaning already undergone” (2014a: 788). Yet, on the other hand, in our context of suffering, we can only really express this sense of salvation “negatively, in parables and visions” (2014a: 788). What might a healed and whole humanity in right

---

11 Schillebeeckx writes, “There cannot really be talk of salvation as long as there is still suffering, oppression, and unhappiness alongside of the personal happiness that we experience, in our immediate vicinity or further afield” (2014a: 720).
relationship with each other and with the earth look like? We do not know. Humanity itself is an eschatological reality. It is both undefinable and in process. Quoting the German Marxist philosopher, Ernst Bloch, Schillebeeckx writes, “Man does not yet know what he is, but can know through alienation from himself what he certainly is not” (2014a: 725). Although we do not yet know what true (i.e., saved, whole, fulfilled) humanity looks like and we are not sure of all that we can become, we intuitively know what we are not meant to be; we know the ways (or at least some of the ways) in which we fall short of full humanity (2014a: 788). We might not know what we are meant to become given the realities of damage that we have already caused to our ecosystem, but we know we are currently missing the mark: our current levels of consumption are unsustainable and our desires are malformed.

At the same time, human nature is a historical reality, meaning not only that it has been expressed in history but is itself a history of salvation. Schillebeeckx explains, “Salvation and humanity, being saved, integrity in a truly human and free way is in fact the theme of the whole of human history” (2014a: 726). For our purposes then, we can think about human history as a history of negotiating right relationships with God, with the land, and with other creatures (2014a: 726). This is not a progressive model of history in which human beings get incrementally closer to a more ideal nature with time, but rather the insight that the historical existence of humanity is characterized by a participation in God’s saving plan for all of creation. This is not a linear path or progression, but a living, pulsing, interaction between God and humans in history as they negotiate (well or poorly) relationships within their ecological niches. In this way, Schillebeeckx’s articulation of the importance of human participation in the unfolding of our nature coheres with the emphasis placed in niche construction theory on the agency of organisms in carving out their own futures.

Schillebeeckx’s understanding of what humans are (i.e., his theological anthropology) is always linked to what humans will be (i.e., his soteriology). Furthermore, his soteriology is always linked (if negatively) to his analysis of how human experience now falls short of the fullness of salvation (in experiences of suffering). Schillebeeckx articulates the good news of Christianity to the world as the message, “humanity is possible!” For him, this means that human beings are capable of becoming themselves in all their graced glory since “these three, God, Jesus Christ and humanity, are one in the sense that they can never be set over against one another or in competition with one another” (1987: 31). In other words, we are capable of the right relationships with the Earth and with God for which we were created (Genesis 2:4b-3:24; Francis: 66). This promise of the possibility of true humanity is accomplished through the “resources of man himself” yet is also (paradoxically) animated by the gratuitous gift (past, present, and future – i.e., eternal) of God’s grace of redemption (1974: 4-5; 2014b: 193). For Schillebeeckx, the humanum, his term for flourishing humanity, though only existent in the eschatological future, exerts an agitating power in the present moment. The humanum “urges us to realize a better world on earth” (2014b: 81) by evoking the protest “No! It can’t go on.

Yet, Schillebeeckx also carves out a space for discussing the way in which humanity “becoming itself” involves a paradoxical kind of self-transcendence.

Schillebeeckx writes, “We do not have a pre-existing definition of humanity – indeed for Christians it is not only a future, but an eschatological reality” (2014a: 725). The process of humanization in history is a mystical process of unification with God.
like this; we won’t stand for it any longer!” (2014b: 83). The only appropriate response to the threatened humanum is resistance and this resistance constitutes participation in the very saving work of God (2014a: 9). In the context of a changing climate, the threatened humanum which demands active resistance implies a threatened human niche, that is, the threatened dynamic relationship between human beings and their environment(s). Rereading Schillebeeckx in light of niche construction theory foregrounds the profoundly relational and dynamic nature of humanity, giving us a way to talk about the reality of human responsibility free from illusions of both total human autonomy and complete human dependency. To become the true humanity which Schillebeeckx claims is possible, I argue, requires an awareness of the evolutionary ways in which we have always had a hand in making ourselves, for better or worse. Yet, at the same time, we never created ourselves in a vacuum. Rather, we have become who we are in relationship with others and we can only continue to survive in (self-conscious) relationship with those upon whom we depend.

Our evolutionary history, framed as a series of developments aimed at survival and amelioration of human suffering, I suggest, reminds us that who we are now has been shaped by negotiation of our relationships with other organisms within our niche(s). In our present predicament of ecological devastation, it is clear that a desire to avoid suffering and to improve the quality of human life can backfire if either short-sighted (i.e., without regard for future generations of our species) or too narrowly conceived (i.e., without regard for other species living within our ecological niches). The framework of niche construction theory reinforces the significance of human agency in our history and our future, and reminds us that any resistance to human suffering is always situated in a broader context. In other words, if, as Edward Schillebeeckx argues, the Christian message does not set up an opposition between humanity and God (1987: 31), the evolutionary framework of niche construction theory reminds us that neither can it set up an opposition between humanity and the rest of creation. Our freedom and well-being is dependent upon the well-being of the ecological network(s) in which we live.

In sum, I argue that the impulse to achieve the humanity that is possible in Christ, according to Schillebeeckx, must be negotiated in an awareness of ourselves as niche constructors. We are embedded in our ecological niche and our actions generate an ecological inheritance for all other organisms living within our environment(s). Schillebeeckx argues that the humanum, which calls out to us to “demand a future and open it up” (2014c: 584), presses us to create the conditions for a “livable humanity” (2014a: 725) through human action on behalf of the good in the name of God (2014a: 763) and a reliance upon God’s transformative grace when our action fails (1988: 70). Yet, I suggest that using niche construction theory as a new framework for understanding human nature and activity introduces language that can help to prioritize human embeddedness in the natural world and amplifies Schillebeeckx’s emphasis of the role of human agency in the process of salvation. Thus, the humanum which calls out to us to “demand a future and open it up” presses us to create the conditions for a livable human niche – a network of human needs, community relationships, and inter-species dependencies that can be sustained within our ecological context(s) – and to adapt resiliently to the pressures that our environment exerts upon us. This is never simply a matter of isolated human action, but rather is a dynamic of creative feedback between ourselves and our
Religion and Globalization

An environment that is graced by a God who desires the flourishing of humanity within the whole created order.

Acknowledgement

The author is grateful to Marc Kissel, Celia Deane-Drummond, Agustín Fuentes, Christina McRorie, and Shaun Warkentin who made helpful comments on earlier drafts of this article. This research was, in part, made possible through the support of a grant from the John Templeton Foundation. The opinions expressed in this publication are those of the author and do not necessarily reflect the views of the John Templeton Foundation.

Bibliography

Benko, Jessica


Bloch, Maurice


Borick, Christopher, Barry G. Rabe, and Sarah B. Mills


Bosman, Julie, Monica Davey, and Mitch Smith


Center for Applied Research in the Apostolate


Cochran, Gregory, and Henry Harpending

Dart, Raymond

Deacon, Terrence

Deane-Drummond, Celia

Deane-Drummond, Celia, and Agustín Fuentes

Diamond, Jared

Ehrenreich, Barbara

Feder, Julia

Feder, Julia, and Jonathan Marks
2016 “Genetics, Race, and the Practice of Science, Part Two: On How Human Genetics is Biopolitical.” *Anthropology News* (December 2).

Fuentes, Agustín


Francis I, Pope

Hardesty, Donald

Hart, Donna, and Robert Sussman

Hawks, John

Jablonska, Eva, and Marion J. Lamb

Johnson, Elizabeth

Kendal, Jeremy

Kendal, Jeremy, Jamshid J. Tehrani, and John Odling-Smee

Kissel, Marc, and Agustín Fuentes

Laland, Kevin, Tobias Uller, Marcus Feldman, Kim Sterelny, Gerd Müller, Armin Moczek, Eva Jablonka, John Odling-Smee, Gregory Wray, Hopi Hockstra, Douglas Futuyma, Richard Lenski, Trudy Mackay, Dolph Schluter, and Joan Strassmann

Laland, Kevin, Tobias Uller, Marcus Feldman, Kim Sterelny, Gerd Müller, Armin Moczek, Eva Jablonka, and John Odling-Smee
Available online at http://rspb.royalsocietypublishing.org/content/royprsb/282/1813/20151019.full.pdf.

Lewontin, Richard

Maibach, Edward, Anthony Leiserowitz, Teresa Myers, Seth Rosenthal, Geoff Feinberg, and Connie Roser-Renouf

Marks, Jonathan

McFague, Sallie

McFarland Taylor, Sarah

Nelkin, Dorothy, and M. Susan Lindee

Odling-Smee, F. John, Kevin N. Laland, and Marcus W. Feldman

Primavesi, Anne

Ruether, Rosemary Radford

Ruether, Rosemary Radford, editor

Santmire, H. Paul
Schillebeeckx, Edward


Simkins, Ronald A.

2014  “The Bible and Anthropocentrism.” Dialectical Anthropology 38: 397-413.

Sterelny, Kim


Tomasello, Michael


Tomasello, Michael, A. C. Kruger, and H. H. Ratner


Wamsley, Laurel


White, Lynn, Jr.