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Umwelt-Theory, Self-Transcendence, and Openness-to-God: Attending Theologically to Human Animality

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Abstract

Christian theological anthropology has been critiqued for its habit of sharply distinguishing the human from the nonhuman and for thereby depreciating human animality in one form or another. Within the context of modern theological anthropology, the result of this habit has often been a vision of the human according to which the less animal we are, the more self-transcendent and God-open we are. In light of recent theological and interdisciplinary interest in the *Umwelt*-theory of Jakob von Uexküll (1864–1944), I indicate how Uexküll's influential account of animal *Umwelten* can be a resource for theologians seeking to articulate human self-transcendence and God-openness in a manner that avoids the depreciation—whether explicit or implicit—of our animality.

Keywords

animality, biosemiotics, God-openness, grace, Eric Daryl Meyer, Wolfhart Pannenberg, self-transcendence, symbol, Jakob von Uexküll, *Umwelt*

The Christian theological tradition has come under strong criticism for its habit of sharply distinguishing the human from the nonhuman and for thereby depreciating human "animality" in one way or another, where animality refers to

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those aspects of ourselves shared in common with nonhuman animals.[1] In light of growing interdisciplinary interest in the *Umweltlehre* (*Umwelt*-theory) developed by the biologist and ethologist Jakob von Uexküll (1864–1944), it is the aim here to demonstrate how Uexküll's influential account of animal *Umwelten* ("surrounding [perceptual]-worlds") is a resource for theologians seeking to overcome this habit and to think anew about nonhuman creatures and the domain of human animality. Uexküll's *Umwelt*-theory offers a distinctive way to think about interspecies differences and continuities and is currently gaining attention within multiple disciplines.[2] Yet it still remains to be seen whether Umwelt-theory has something genuinely useful to offer theological scholarship.

In an important work for contemporary scholarship on human animality, the theologian Eric Daryl Meyer has offered a rare theological engagement with Uexküll's Umwelt-theory.[3] The engagement emerges out of Meyer's incisive critique of modern

1. In addition to Eric Daryl Meyer's *Inner Animalities: Theology and the End of the Human* (New York: Fordham University Press, 2018) engaged here, see Celia Deane-Drummond and David Clough, eds., *Creaturely Theology: God, Humans, and Other Animals* (London: SCM, 2009) for an overview of the main issues involving theology and animality. See also Stephen D. Moore, ed., *Divinanimality: Animal Theory, Creaturely Theology* (New York: Fordham University Press, 2014).
2. Uexküll framed the task of biology as an investigation into the "mechanisms" undergirding how meaning (*Bedeutung*) is constructed and perceived by organisms in their perceptual surrounding (*um*) worlds (*welten*). I discuss this in detail in Section II below. Uexküll's writings were immensely influential in the twentieth century on continental biologists, ethologists, and philosophers. His most influential works remain his *Theoretical Biology* (New York: Harcourt, Brace & Company, Inc., 1926); *A Foray into the Worlds of Animals and Humans*, trans. Joseph D. O'Neil (Minneapolis: University of Minnesota Press, 2010); and *Theory of Meaning*, trans. Joseph D. O'Neil (Minneapolis: University of Minnesota Press, 2010). Interdisciplinary interest in Uexküll is currently burgeoning within anglophone philosophy of mind, phenomenology, anthropology, cognitive science, and biosemiotics. See, for instance, Francesca Michelini and Kristian Köchy, eds., *Jakob von Uexküll and Philosophy* (New York: Routledge, 2020); Brett Buchanan, *Onto-Ethologies: The Animal Environments of Uexküll, Heidegger, Merleau-Ponty, and Deleuze* (Albany: State University of New York Press, 2008); Agustín Fuentes, *Why We Believe* (New Haven, CT: Yale University Press, 2019); Evan Thompson, *Mind in Life* (Cambridge, MA: The Belknapp Press, 2010); Donald Favareau, ed., *Essential Reading in Biosemiotics: Anthology and Commentary* (New York: Springer, 2010); Carlo Brentari, *Jakob von Uexküll: The Discovery of the Umwelt between Biosemiotics and Theoretical Biology* (New York: Springer, 2015).
3. Meyer, *Inner Animalities*. For other recent works in theological anthropology (in addition to Meyer) that touch on Umwelt-theory, see Celia Deane-Drummond, *Theological Ethics through a Multispecies Lens*, vol. 1 (Oxford: Oxford University Press, 2019); Emmanuel Falque, *The Wedding Feast of the Lamb*, trans. George Hughes (New York: Fordham University Press, 2016); Daniel P. Horan, *Catholicity and Emerging Personhood: A Contemporary Theological Anthropology* (Maryknoll, NY: Orbis Books, 2019). Meyer and Horan offer the most sustained treatments. My focus here is only on the trajectory opened up by Meyer.

Christian theological anthropology's tendency to contrast the human and nonhuman and to depreciate human animality in one form or another. Meyer's primary target of critique on this front is Wolfhart Pannenberg, who deploys Uexküll in order to construct a clear divide between the human, defined as world-open, God-open, and self-transcendent, and nonhuman animals, defined as "Umwelt-bound." Self-transcendence—a distinctively human capacity that does crucial theological work within this theological framework—is here framed as a transcendence of the animal domain and human animality defined in terms of Umwelt-theory. In an attempt to counter this depreciation of human animality, Meyer offers an alternative twofold proposal: (1) that theologians characterize the human as "no less *Umwelt*-enmeshed" than nonhuman animals, where this human Umwelt is a "natural-cultural reality"; and (2) that doing so enables theologians to retain this notion of the human as a self-transcendent animal but now framed as a "transcendent configuration of animality itself" rather than a transcendence of animality's constraints.[4]

Meyer's proposal has opened up one trajectory of inquiry into what work Uexküll's Umwelt-theory can do for constructive theological scholarship focused on human animality. However, while an important contribution to theological engagement with Umwelt-theory, the proposal faces critical difficulties. In brief, Meyer's engagement with the biosemiotic component central to Umwelt-theory is underdeveloped, as is his account of the species-specific nature of the human Umwelt.[5] Umwelten have distinct species-specific structures. Affirming human Umwelt-enmeshment must therefore be accompanied by an analysis of the species-specific structures of the human Umwelt. The proposal also leaves unclear the connections between the human Umwelt, animality, and self-transcendence. Finally, the proposal does not yet amount to a *theology* of self-transcendence in relation to animality and the Umwelt. Such an account would, as Meyer suggests, discover divine grace at work in human animality and would do so in such a way that this graced self-transcendence is no longer framed as a movement away from the animal domain and human animality.[6] But how exactly grace relates to self-transcendence, human animality, and the human Umwelt requires more clarification than Meyer provides.

Briefly put, Meyer's proposal currently reads as a provocation that calls out for further explication. Given contemporary interdisciplinary interest in Uexküll's Umwelt-theory and the growing theological focus on this theme of human animality, the aim in what follows is to develop constructively Meyer's provocation by addressing the difficulties noted above. I do so by offering a more in-depth engagement with the biosemiotic component of Uexküll's Umwelt-theory. The solution to the problems

4. Meyer, *Inner Animalities*, 83.
5. As outlined in Section II, Uexküll's Umwelt-theory is biosemiotic in orientation insofar as it takes signs and organism-relative meaning (or significance) as its central focus. Uexküll did not define himself as a biosemiotician, but he is recognized as a founding figure within the discipline. See Favareau, *Essential Reading*, 81. Biosemiotics sees signs and meaning as defining features of all living beings rather than belonging only to the human linguistic domain.
6. Meyer, *Inner Animalities*, 85.

Meyer highlights is not simply to affirm the Umwelt-enmeshment of the human being. Without further clarification, the claim that the human is Umwelt-enmeshed no less than other animals carries minimal content and does little theological work. Although focused on the particular trajectory of engagement with Uexküll opened up by Meyer, what I offer here can also be read as a performance of the kind of engagement with Uexküll that is minimally required if he is to do genuine theoretical work for constructive scholarship focused on human animality and our relations to other nonhuman animals.

The argument unfolds in three sections. Section I reviews Meyer's proposal as well as the difficulties facing it. The constructive work begins in Section II. Here I introduce the central biosemiotic component of Uexküll's Umwelt-theory and use it both to indicate more clearly the relation between Umwelt-theory and human animality and to develop a thicker description of the species-specific structures of the human Umwelt. The aspect of human animality that Umwelt-theory draws our attention to is the *perceptual* and *pre-reflective* domain of meaning making. As for the species-specific structures of the human Umwelt, it is precisely here that, when formulated semiotically, the categories of world-openness and God-openness can still do important theoretical work. The human Umwelt is, I propose, marked by a symbolic world-openness and a mode of God-openness that this world-openness entails. These conceptual clarifications are needed in order for Umwelt-theory to do theoretical work for a properly theological characterization of self-transcendence as a transcendent configuration of animality. Taking up Meyer's challenge to theologians to discover the workings of divine grace in human animality, Section III sketches a vision of human self-transcendence as a process of graced conversion, a central effect of which is the configuration of a convert's perceptual and pre-reflective Umwelt-domain (animality) in accordance with the God-open Christian symbolic world. A theological characterization of self-transcendence framed in this way draws our attention to the Umwelt and the domain of animality correlated with it.

Section I: Meyer's Proposal

Meyer's engagement with Uexküll forms part of his incisive analysis of, and attempt to overcome, what he calls the "problem of human animality" within the Christian theological tradition. In brief, the problem refers to the tension within Christian theology regarding those aspects of ourselves that we share with nonhuman animals. On the one hand, Christian theology has characterized human animality (i.e., those aspects of ourselves we share with nonhuman animals) as good insofar as it is created by God and somehow partakes in God's salvific work. On the other hand, it has simultaneously characterized animality as something to be constrained or perhaps even transcended through the process of spiritual growth. Animality is contrasted with a set of behaviors, values, and traits that are distinctively human and whose activity represents our true or authentic humanity.[7] This internal division between animality and

7. Meyer, 4.

humanity is therefore correlated with a tendency to draw categorical distinctions between humans and other animals. Moreover, while not identified with sin, animality is ultimately closely associated with it. Correlatively, God's grace works primarily to accentuate our true humanity. In Meyer's estimation, this framework not only ultimately depreciates animality but it also breeds an ethically suspect anthropocentric exceptionalism.[8]

Meyer offers an ambitious attempt to overcome the problem of animality within different areas of theology, but our focus here is only on his marshaling of Uexküll's Umwelt-theory for this end. He does so as a counter to Pannenberg's treatment of Umwelt-theory.[9] A brief overview of Pannenberg's treatment of Umwelt-theory is therefore needed before addressing Meyer's proposal.[10] According to Pannenberg, nonhuman animals are bound to a here-and-now perceptual sector of reality that is "determined by the vital interests of the species and corresponds to an innate behavioral schema (*Verhaltensschema*)."[11] Put otherwise, nonhuman animals are limited to instinctual activities in pursuit of vital or biological interests (i.e., survival and reproduction), and this limitation binds them to a here-and-now perceptual sector of reality whose content is limited to what is relevant to those interests. Pannenberg calls this limited perceptual sector the animal Umwelt. Humans, however, are marked by a lack of innate behavioral schemas and instincts, and this lack opens us to nonvital interests and to a world (*Welt*) of objects (*Gegenstände*) *instead of* an animal Umwelt.[12]

Pannenberg justifies this characterization of nonhuman animals as Umwelt-bound (*umweltgebunden*) by appealing to Uexküll's Umwelt-theory, according to which an Umwelt is an organism's perceptual (or phenomenal) surrounding whose content is tightly correlated with an organism's species-specific capacities and bodily form. According to Uexküll, every organism dwells within an Umwelt that surrounds it like a "bubble," and what one species perceives in its Umwelt can be radically different from what other species perceive in their Umwelten.[13] As outlined in Section II below,

8. Meyer, 173.
9. Although his attempt to engage Uexküll is distinctive among major twentieth-century theologians, Pannenberg's overarching theological framework is shared by other major theologians, even if they do not engage Uexküll. See Meyer, *Inner Animalities*, for an extended survey of this overarching framework in modern theology, especially in Karl Rahner's theology.
10. My treatment of Pannenberg parallels Meyer's more detailed analysis. See Meyer, 77–84. Besides Meyer's text, anglophone scholarship on Pannenberg and the Umwelt theme is scarce. For a text that briefly addresses it, see Godfrey Igwebuike Onah, *Self-Transcendence and Human History in Wolfhart Pannenberg* (New York: University Press of America, 1999).
11. Wolfhart Pannenberg, *Anthropology in Theological Perspective*, trans. Matthew J. O'Connell (New York: T & T Clark International, 1985), 33.
12. "Only man generally experiences objects (*Gegenstände*)—in the precise sense of the word—as independent entities that stand opposite him, that are strange, and that can evoke astonishment." Wolfhart Pannenberg, *What Is Man?*, trans. Duane A. Priebe (Philadelphia: Fortress Press, 1970), 6.
13. Uexküll, *Foray*, 43.

Pannenberg's association of Umwelt-theory with innate instincts, behavioral schema, and vital interests indicates a very selective reading of Uexküll that bypasses much that is distinctive about his thought. It also renders Umwelt-theory of little direct import for theological anthropology.[14]

However, as Meyer's insightful analysis of Pannenberg makes clear, Umwelt-theory does in fact do indirect theological work in a way that reveals the ambiguous status of human animality in Pannenberg's theological framework. Reality as we encounter it is limited by our culturally formed interests, desires, character, roles, biases, and so forth. In this sense, we also relate to limited sectors of reality, which Pannenberg is willing to frame as quasi-Umwelten.[15] Our relating to culturally shaped quasi-Umwelten constitutes the domain of human animality proper to us as finite embodied beings. Yet a crucial element of our world-openness (*Weltoffenheit*) is that we experience ourselves *as* limited to such sectors, thereby revealing an ever-present capacity for the transcendence of such (animal) limitations: "human beings are in a position to recognize . . . the partisan character of their perspectives and thus to move beyond these, to expand and, at least partially, to break through the boundaries set by their own interests."[16]

This capacity for self-transcendence is distinctively human, and its activity is authentically human. Importantly, self-transcendence so construed is a transcendence of the constraints stemming from our animality. Indeed, its refusal is a reversion to a quasi-animal mode of Umwelt-boundedness that closes us off from the divine power grounding our existence.[17] World-openness is inextricably correlated with human God-openness (*Gottoffenheit*), where the latter names, at first, our pre-thematic openness to an infinite horizon that envelops our experience of the world.[18] Because we are God-open, no finite reality or worldview can exhaust human possibilities. God-openness is therefore the ultimate ground of the human drive toward self-transcendence. The transcendence of our animal constraints through self-transcendence is, accordingly, simultaneously a movement toward God (as infinite horizon).

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14. Arnold Gehlen, Max Scheler, and Helmuth Plessner heavily influence Pannenberg's reading of Uexküll. See especially part I of his *Anthropology*.
15. These are Umwelten only analogous to animal Umwelten because "there is . . . no question here [with the human] of a limited perspective that is innate and peculiar to a species, but [it is] rather an effect of culture." Pannenberg, *Anthropology in Theological Perspective*, 33. Pannenberg also describes the pole of human existence that we share with other animals as egocentricity (*Ichzentriertheit*).
16. Pannenberg, 60–61.
17. Pannenberg, 109.
18. "The openness . . . which first makes possible the very perception of an object (*Gegenstand*) reaches beyond the totality of all given and possible objects of perception, that is, beyond the world." Pannenberg, 68. Pannenberg also characterizes this horizon as a limitless horizon of meaning (72). I return to this in Section II below. By speaking here of a horizon, Pannenberg is emphasizing that we are, for the most part, not explicitly aware of it. Nor do we necessarily associate this horizon with the God of theism once it is explicitly thematized.

The details and merits of this framework are not our present concern. What matters is how this framework deploys Umwelt-theory in a way that perpetuates the problem of human animality.[19] In brief, we see a sharp divide between human world-openness (*Weltoffenheit*) and nonhuman animal Umwelt-boundedness (*Umweltgebundenheit*).[20] Our having partial or limited perspectives on reality (i.e., quasi-Umwelten) is, however, necessary and good given our status as embodied cultural creatures. This is the domain of human animality. Yet authentic humanity is found in self-transcendence, and the latter is framed as a transcendence, however partial, of our animality. Finally, the merely animal condition of Umwelt-boundedness is not sinful, but the human approximation of it is. This approximation occurs through a refusal of self-transcendence, a refusal that is ultimately a recoiling, so to speak, in the face of our constitutive God-openness.

Meyer's response is not to scrap this framework. He proposes instead that we amend it by means of an alternative treatment of Uexküll. Meyer begins by offering a definition of the Umwelt as the phenomenal (perceptual) world "as it appears from the perspective of each animal's sense organs and material interests."[21] Following Pannenberg, he links the Umwelt with innate and species-specific instincts, interests, and drives. Yet Meyer does not follow Pannenberg where Pannenberg says the lack of these renders the human world-open in contrast to the Umwelt-boundedness of other animals. Rather, he questions the nature-culture binary that undergirds this distinction. The binary associates nature (animal) with species-specific and innate instincts, drives, and interests, while culture (human) is associated with a lack of these and hence with freedom and self-transcendence. The Umwelt falls on the side of nature; the world (*Welt*) falls on the side of culture. Meyer argues that humans are not in fact free from such instincts, drives, and interests, even though they are thoroughly shaped by culture. In Meyer's words, we are therefore Umwelt-enmeshed no less than nonhuman animals, where this human Umwelt is a natural-cultural reality. Importantly, this move subsequently allows us to reframe the category of human self-transcendence. Once humans are defined as inextricably Umwelt-enmeshed no less than other animals, self-transcendence can be framed as a transcendent configuration of animality itself rather than a transcendence of its constraints.

Meyer has done theological anthropology a service by drawing attention to Uexküll and by opening up one trajectory for a contemporary theological anthropology that attends to human animality in dialogue with Uexküll's Umwelt-theory. Yet there are critical difficulties with the proposal.[22] First, perhaps overly influenced by Pannenberg's interpretation of Uexküll, Meyer mostly overlooks the biosemiotic core of Uexküll's Umwelt-theory. As it stands, the claim that we are Umwelt-enmeshed no less than

19. For a fuller analysis, see Meyer, *Inner Animalities*, 80.
20. "[The human is marked by an] openness-to-the-world (*Weltoffenheit*), in distinction from the dependence of the animals on their environment (*Umweltgebundenheit*)." Pannenberg, *Anthropology in Theological Perspective*, 34.
21. Meyer, *Inner Animalities*, 78.
22. For Meyer's fuller defense of the proposal, see Meyer, 83.

other animals seems to assert little more than that we too have species-specific instincts and desires as well as limited perceptual perspectives on reality that are shaped by culture. Meyer's treatment of Uexküll is ultimately too minimalistic.[23] It is possible for us to provide a much thicker account of both what an Umwelt is and what the species-specific structures of the human Umwelt in particular are. To do so requires more detailed attention to what I am calling the biosemiotic components of Umwelt-theory. Second, Meyer leaves unclear the connections between the human Umwelt, animality, and his framing of self-transcendence. How exactly is human animality configured in a transcendent manner in self-transcendence? How exactly can we think about this from the perspective of Umwelt-theory? Finally, the proposal does not yet amount to a *theology* of self-transcendence that answers Meyer's own challenge to theologians—namely, to discover the operations of divine grace in human animality.[24]

With that said, I believe that Meyer's proposal is worth building upon. In order to do so, we must, however, go beyond a minimalist treatment of Uexküll. It is one thing to claim that the human is Umwelt-enmeshed no less than other animals; it is another thing to specify both the Umwelt's relation to human animality and the species-specific structures of the human Umwelt. Only through a careful analysis of these issues can Uexküll's Umwelt-theory do genuine theoretical work for theological projects on animality. To this task we now turn.

Section II: *Umwelt*-Theory and Human Animality—Reordering the Discussion

Given the above-indicated problems facing Meyer's proposal, this section has a few central aims. In critical-constructive dialogue with the biosemiotic component of Uexküll's Umwelt-theory, the first aim is to develop a thicker description of the Umwelt and what it might mean to claim that humans have an Umwelt. This will enable us to clarify how exactly Umwelt-theory applies to human animality (i.e., those aspects of human existence shared with nonhuman animals). I suggest here that engagement with Umwelt-theory draws our attention to the *perceptual* and *pre-reflective* domain of human existence, where the boundaries between human and nonhuman meaning making and action blur. After drawing attention to this domain of commonality, a second aim is to clarify certain aspects of the species-specific structure of the

23. Similar problems face Daniel Horan's treatment of Uexküll. See Horan, *Catholicity*, 106–22. He claims that the human world (*Welt*) is just an Umwelt and that other creatures too are meaning makers, which he uses to ground a more inclusive account of how God is imaged in other creatures. Horan notes that the issue is not just *that* we perceive the world differently from other animals but rather *how* what we perceive is networked together into objects of experience. Yet here is precisely where we need more insight than Horan provides. Without more insight here, Horan's use of Uexküll offers minimal philosophical, scientific, and theological content.

24. To be clear, Meyer's *Inner Animalities* develops an expansive theology of human animality. My critique is limited to his treatment of the Umwelt.

human Umwelt that are distinctively human. On this point, I go beyond Uexküll and characterize the human Umwelt as open to symbolic worlds of meaning, which in turn renders the human Umwelt open to God in a specific way. Here I propose that, once transposed into a semiotic register in keeping with Umwelt-theory, the anthropological categories of world-openness and God-openness can do important theological work. Together with the account of animality outlined here in terms of Umwelt-theory, a semiotic account of world-openness and God-openness lays the groundwork for the final section, where I sketch an account of self-transcendence as a transcendent configuration of human animality in a way that attends to the operations of divine grace in it.

Developed in the late nineteenth to early twentieth centuries, Uexküll's Umwelt-theory was a novel attempt to develop a science of the behavior of organisms that, in contrast to mechanistic frameworks, prioritized the category of meaning (*Bedeutung*) over that of efficient causality.[25] One of his most influential theoretical innovations was to replace a linear stimulus-response model of organism action, framed in terms of mechanistic reflexes, with a semiotic model, framed in terms of a meaning-cycle (*Bedeutungskreis*). From the perspective of Umwelt-theory, each stage of an organism's unfolding activity is moved forward by meaning (or significance). Organisms are not stimulus-response machines. Umwelt-theory views each organism as equipped with species-specific sensorimotor capacities and, in some cases, with acquired dispositions and skills that attune it to certain aspects of its physical surrounding as meaningful in relation to its current pursuits.

Uexküll correlates this view of the organism with his novel account of the Umwelt. The Umwelt is the organism's perceptual surrounding (*um*)-world (*Welt*) or field constituted by what he calls meaning-carriers (*Bedeutungsträger*) whose being (meaning) depends upon their relation to an organism actively engaged with its surroundings. Meaning-carriers come in two forms: signs (*Zeichen*) and affordances for action.[26] A sign is anything that signifies or represents something else for a perceiver. As indicated in Uexküll's oft-referenced account of the tick's Umwelt, it is possible—in some cases at least—to single out the stimuli that become signs for a given organism and thereby play a role in its unfolding activity.[27] The odor emanating from a nearby mammal, for instance, becomes a sign for the tick that signifies an approaching mammal and thereby sets in motion the tick's activity of dropping at the opportune moment. A meaning-carrier can also be an environmental affordance understood as that which the environment affords an organism for action. An affordance so understood is a meaning-carrier,

25. See especially, Uexküll, *Theory of Meaning.* Neither Meyer nor Pannenberg go into enough detail on this precise point.
26. I borrow this term, "affordance," from James J. Gibson's influential work, *The Ecological Approach to Visual Perception* (Boston, MA: Houghton Mifflin, 1979). Uexküll himself does not make a distinction between meaning-carriers in terms of signs and affordances as I do here. However, as explained below, he has an account of affordances analogous to Gibson's.
27. Uexküll, *Foray*, 44–45.

but it is not a sign. The track in the ground is a sign for a skilled hunter that signifies nearby prey, but it is not an affordance in the way that, say, a spear is. The spear in the context of a hunt is an affordance-for-killing or injuring. Like the sign, the being of an affordance is dependent upon an organism's capacities, whether innate or acquired. A spear, for instance, is not an affordance-for-killing for an animal that has no capacity to throw. In Uexküll's language, something becomes an affordance when an action-rule (*Tätigkeitsregel*) possessed by the organism (e.g., throwing) unites the object's properties and possibilities into a perceptual unity.[28] The being of an affordance is therefore always interchangeable with its function for a subject who possesses certain capacities and skills (action-rules).[29]

The Umwelt is distinct from the environment (*Umgebung*) understood as something like the physical-geographical surrounding populated by things and events whose being is in no way dependent upon a perceiver. The Umwelt is a relational reality insofar as its being qua Umwelt depends upon the sensorimotor capacities, dispositions, and skills of a given organism. Uexküll also emphasizes the intimate interconnection between perception and action: "[The] world of action (*Wirkwelt*) and world-as-sensed (*Merkwelt*) together make a comprehensive whole, which I call the surrounding world (*Umwelt*)."[30] That is, Umwelt meaning-carriers are perceived *in terms of* their meaning (significance or function) in relation to an organism's capacities and current engaged activity.

From this perspective, humans are indeed Umwelt-enmeshed no less than other animals. This is an actual Umwelt, not a quasi one. We can make sense of this without taking a position on whether or not humans have innate instincts, drives, and behavioral schemas, and so forth. We are Umwelt-enmeshed insofar as we are the centers of a perceptual field constituted by meaning-carriers. As a unity of a Wirkwelt and Merkwelt, this Umwelt in which we are enmeshed is the perceptual field that lights up in terms of its here-and-now meaning in relation to our current practical activity and pursuits. It is delimited in terms of its content by our shared species-specific sensorimotor capacities, since there is much in the environment that we are by nature perceptually closed off from. It is also delimited in terms of its content by our cultural formation. The latter does so, on the one hand, by determining what counts as a sign and what these signs signify and, on the other hand, through our developmental

28. Uexküll, *Theoretical Biology*, 133. I am using "affordance" to translate what Uexküll calls a *Gegenstand*, a term he uses differently from Pannenberg. For Uexküll, a *Gegenstand* is an object of perception whose unity is related to its *function* for the perceiver. *Theoretical Biology*, 103–9. Although what Uexküll means by *Gegenstand* is similar to what Gibson means by affordance, the Kantian foundations of Uexküll's thought are at odds with Gibson's theory of ecological perception. For a discussion, see Tim Elmo Feiten, "Mind after Uexküll: A Foray into the Worlds of Ecological Psychologists and Enactivists," *Frontiers in Psychology* 11 (2020): 1–10, https://doi.org/10.3389/fpsyg.2020.00480.

29. "By the much misused word 'nature' ('*Wesen*') of an implement (*Gegenstand*), we always mean its function." Uexküll, *Theoretical Biology*, 107. "Chair," for instance, is another word for "sitting-thing."

30. Uexküll, 127.

acquisition of action-rules (or skills) that transform certain perceptual objects into affordances.

We have at this stage a preliminary account of the human Umwelt in which we are enmeshed and its species-specific structure as a natural-cultural reality (as Meyer proposes). But it still leaves us with a somewhat modest insight. It tells us only that we are the centers of perceptual fields that are constituted by here-and-now meaning-carriers (in relation to our current action and pursuits) and that are given structure by our species-specific sensorimotor capacities as well as by our cultural formation. It is, however, possible to say more about the human Umwelt than this. More specifically, we can gain further clarity on the following fronts: (1) how the meaning structure of our Umwelt is opened up. This will also allow us to clarify the connection between Umwelt-theory and the domain of human animality; and (2) some distinctive species-specific features of the human Umwelt, which I will characterize below in terms of world-openness and God-openness.

As for how the human Umwelt's meaning structure is opened up, I propose that Uexküll's emphasis on meaning in the Umwelten of *nonhuman* organisms, who lack language and reflective capacities, pushes us to attend to an easily overlooked mode of human meaning making that is prior to the reflective-interpretive acts that we tend to associate with human uniqueness and self-transcendence.[31] The flow of much of our everyday activity indicates that we inhabit and navigate a system of meaning-carriers without much need for reflective-interpretive operations. That is, the meaning structure of our Umwelt is opened up mostly by means of a mode of meaning making that is *pre-reflective*. Pre-reflective meaning making involves an immediate mode of perceptual understanding, or seeing-as, within the context of here-and-now engaged activity. I perceive that object immediately *as* a spear; I perceive that person immediately *as* worthy of attention; I perceive the situation immediately *as* threatening, and so forth. Similarly, many of our inferential and behavioral responses to what is immediately understood are pre-reflective and immediate.

Seen in this way, meaning-carriers include not just signs and individual affordances but also here-and-now *situations* that carry (or present us with) certain possibilities for action.[32] What appear as genuine possibilities in relation to such situations are—at least in in part—determined by how situations are immediately or pre-reflectively understood in terms of their meaning. Our Umwelt as constituted by signs, affordances, and situations therefore does not appear to us as a confusion waiting to be structured

31. I draw here from Johann Michel's philosophically rich engagement with Uexküll. See Johann Michel, *Homo Interpretans: Towards a Transformation of Hermeneutics*, trans. David Pellauer (New York: Rowman & Littlefield, 2019).

32. Situations should be understood broadly here to include interpersonal situations and those we take to be morally significant. A significant part of the moral life is a matter of both whether we perceive certain situations *as* morally meaningful (i.e., as carrying normative weight) and how we perceive them *prior* to our acts of deliberative consideration about what to do. For a helpful discussion, see Lawrence Blum, "Moral Perception and Particularity," *Ethics* 101, no. 4 (1991): 701–25, https://doi.org/10.1086/293340.

by thought. It mostly appears as a domain of pre-reflectively understood meaning-carriers structured in relation to our current engaged activity. Indeed, our reflective-interpretive acts (discussed in more detail further on) presuppose this more primary mode of pre-reflective meaning making.[33]

Since they involve selective, categorizing, and inferential processes, we may designate the operations involved in pre-reflective meaning making as proto-interpretative.[34] These proto-interpretive operations at the human level are largely shaped by the operations of habitus. Habitus is here meant in the sense of dispositions and skills acquired through development and participation in social-cultural-political communities marked by particular practices and institutions.[35] Acquired habitus operates as a proto-interpretive source of classification, signification, immediate understanding, inferential processes, and embodied know-how. Habitus thereby relieves us from the burden of excessive reflection in the course of our everyday activity. Indeed, it is precisely through the proto-interpretive operations of habitus that we are able to inhabit our Umwelt similar to the way in which other animals inhabit their Umwelten. Uexküll often refers to a nonhuman Umwelt as a dwelling world (*Wohnwelt*) in which organisms carry out their activity with what he calls secureness (*Sicherheit*).[36] Secureness is a function of the pre-reflective flow of immediate understanding, inference, and behavioral response. Something like this secureness is achieved in our own everyday lives, where our primary modus operandi is pre-reflective meaning making governed by the proto-interpretive operations of habitus.

We can now clarify more exactly one way in which Umwelt-theory relates to the domain of human animality (i.e., those aspects of human existence shared with other animals). As indicated above, Umwelt-theory pushes us to attend to the here-and-now Umwelt constituted by immediately understood meaning-carriers and to a correlated pre-reflective mode of meaning making governed by the proto-interpretive operations of habitus. From the perspective of Umwelt-theory, human animality designates precisely these two interrelated aspects of human existence. Below we will discuss in

33. In this sense, it seems to me that we do not primarily relate to *Gegenstände* (in Pannenberg's sense) but rather to meaning-carriers including signs, affordances, and situations.
34. Here I draw again from Michel who uses proto-interpretation to "designate the pre-reflexive operations, valid for every living organism, including human beings, of selecting among signs that constitute an *Umwelt*." Michel, *Homo Interpretans*, 16. For some organisms, these operations are innate, while for others, like ourselves and certain other animals, they require an extended developmental period to form. It is the pre-reflexive (or pre-reflective) aspect of these operations that we share with other animals.
35. Pierre Bourdieu, *The Logic of Practice*, trans. Richard Nice (New York: Cambridge University Press, 1977). Habitus is a "system of lasting, transposable dispositions which, integrating past experiences, functions at every moment as a *matrix of perceptions, appreciations, and actions.*" Bourdieu, *Logic of Practice*, 82–83, italics in original.
36. For the *Wohnwelt* reference, see Uexküll, *Theory of Meaning*, 139. For the *Sicherheit* reference, see Jakob von Uexküll, "Die Bedeutung der Umweltforschung für die Erkenntnis des Lebens," *Zeitschrift für die gesamte Naturwissenschaft* 1, no. 7 (1935): 257–71 at 263. Uexküll does not make the connection to habitus that I am making here.

more detail those acts that allow us to attain a more reflective comportment toward our surroundings and to reflect on the meaning opened up at a pre-reflective level. However, it should be clear already that the capacity for such acts does not mean that we transcend having an animal Umwelt. This would require shedding both our perceptual access to the world and the pre-reflective mode of meaning making that our more reflective-interpretive acts presuppose.

The analysis thus far has provided insight into what it might mean to claim that the human is Umwelt-enmeshed no less that other animals and how Umwelt-theory pertains to human animality. However, to leave it here would be insufficient, since there is still room to gain further clarity on the species-specific structures of the human Umwelt.[37] In particular, I want to suggest that the account of the human Umwelt offered so far requires a more nuanced treatment of the nature of signs and the cultural component of the human Umwelt. Although the operation of signs (semiosis) is at the center of his Umwelt-theory, Uexküll is insufficiently attentive to the different kinds of signs operative in the animal kingdom. It is precisely here that I want to redeploy the categories of world-openness and God-openness and to do so by transposing them into a semiotic register in keeping with Umwelt-theory. They will thereby not only help us characterize even more precisely the human way of having an Umwelt but will also do genuine theoretical work for a theology of self-transcendence articulated in the section that follows.

Let us begin by shifting focus to the human capacity for a specific mode of sign—namely, the symbol. Nonhuman animals are constantly making use of signs in the ongoing flow of their various activities, but these signs do not signify concepts or ideas connected to language. Semiosis does not require human language. However, what contemporary biosemiotics has made clearer than Uexküll did is that there are different modes of signs—namely, icons, indices, and symbols.[38] According to the standard definitions, an iconic sign signifies by means of a relation of resemblance to what it signifies; an indexical sign signifies by means of some kind of causal or contiguous correlation with what it signifies (e.g., a scent left by another animal); and a symbol signifies by means of a conventional (or arbitrary) relation between the sign and what is signified. The symbol in this sense is limited to the human and is directly correlated with the capacity for language and culture.

Defining the human symbol only in terms of its "conventional" characteristic is, however, insufficient. Many indexical signs operative in nonhuman Umwelten can also be construed as conventional. There is nothing inherent, for instance, in a certain

37. Below I focus on nuances regarding the nature of signs that Uexküll misses. But it is important to note that Uexküll often attends to features unique to only the human Umwelt. See especially Jakob von Uexküll, "Tier und Umwelt," in *Zeitschrift für Tierpsychologie*, vol. 2 (Berlin: Verlag von Paul Parey, 1939), 100–114. Here he argues, much like Pannenberg, that the human is aware of an object as an in-itself in a way that other animals are not.

38. This tripartite account of the sign was first outlined by Charles S. Peirce who, like Uexküll, is considered a founding figure in biosemiotics. Peirce offers a more developed analysis of the different modes of signs. For helpful overviews, see Favareau, *Essential Readings*.

vervet monkey's call that connects it to what it signifies (e.g., predator-here-and-now). The key feature of the symbol is therefore not so much its conventional nature as it is its property of double reference.[39] A symbol always refers not just to a particular object but also to other symbols within a world of interrelated symbols. Individual symbols only possess their signifying power by virtue of these interrelations. A symbolic world therefore has a weblike structure. Gaining competence as a symbol user is not simply a matter of learning to associate one individual sign (e.g., word) with some object. Children must also become inhabitants of a symbolic world whereby they master organized relations between signs.[40]

Transposed into a semiotic register, I propose that human world-openness indicates this openness to, and inhabiting of, symbolic worlds. Such worlds are shared cultural worlds grounded in particular cultural institutions and practices. However, we need not frame this symbolic world-openness in contrast to animal Umwelt-enmeshment. As described above, we always remain the perceptual centers of Umwelten whose meaning structure is largely formed at the pre-reflective level. Furthermore, the capacity for symbolism does not entail that we leave behind the iconic and indexical modes of signification operative in nonhuman animal Umwelten. Iconic and indexical signification remain the scaffold upon which symbolic signification is built, and we constantly make use of iconic and indexical signs much like nonhuman animals.[41]

It would, moreover, be a mistake to think of these symbolic worlds as, so to speak, floating above our Umwelten. We do not inhabit two worlds, a perceptual Umwelt and a symbolic thought-world. Rather, symbolic worlds structure human Umwelten, and they do so precisely because we are habituated into ways of life within particular communities that are custodians of symbolic worlds and their correlated practices and institutions. A symbolic world so construed is not a neutral space of ideas. It has a topography structured according to which goods, values, and practices a community prioritizes as well as which norms and central narratives define it. We can create and explore endless imaginative worlds as thought-worlds, but we do not inhabit such worlds. It is only by means of habituation into a shared way of life that we inhabit a shared symbolic world. A symbolic world is inhabited precisely when, via acquired habitus, it shapes the

39. Here I follow Terrance Deacon's seminal treatment of the symbol. See Terrance Deacon, *The Symbolic Species* (New York: W. W. Norton & Company, 1997). Deacon's account ties the capacity for symbolism tightly to language.

40. Deacon, *Symbolic Species*, 402. As he writes, "The learning problem associated with symbolic reference is a consequence of the fact that what determines the pairing between a symbol (like a word) and some object or event is not their probability of co-occurrence, but rather some complex function of the relationship that the symbol has to other symbols." Deacon, 83.

41. Deacon, *Symbolic Species*, 73. See also Eduardo Kohn, *How Forests Think: Toward an Anthropology beyond the Human* (Los Angeles: University of California Press, 2013). Human culture and symbolism entail a distinctive mode of meaning making, but it is also only one of countless other modes of animal meaning making distinctive in their own ways.

proto-interpretive operations that undergird our pre-reflective meaning making. Habituation into a shared symbolic world prejudices what lights up as a sign within an Umwelt, what it signifies, and how it is experienced in terms of its affective and normative salience. What lights up as an affordance is also delimited by the capacities cultivated by a community for the purposes of the practices that constitute its shared way of life.[42] Similarly, although individualized in various ways according to personal character, interests, and goals, how a here-and-now situation is immediately understood and what genuine possibilities for action it presents are largely determined by an inhabited symbolic world of shared meaning. In brief, an inhabited symbolic world prejudices what lights up pre-reflectively as a meaning-carrier, what meaning it carries, and how it is experienced in terms of its affective and normative salience.

This is not to deny the importance and ubiquity of reflective-interpretive acts. Ubiquitous in everyday human life is a form of ordinary interpretation provoked by disruptions in our pre-reflective meaning making. Ordinary interpretation indicates a subject's presence to what may be called a surplus of meaning. It involves an active attending to an object or situation from different points of view in order to overcome ambiguity or a lack of intelligibility here-and-now. Through it we gain insights and grasp new patterns that can in turn shape our future ongoing pre-reflective meaning making. The ubiquity of ordinary interpretation in human life indicates an important sense in which we are not fully enmeshed in an Umwelt as opened up in its meaning structure by pre-reflective and proto-interpretive operations.

Ordinary interpretation is not unique to the human being. It is clearly performed by certain other animals who encounter surpluses of meaning.[43] However, as inhabitants of symbolic worlds, we do encounter a specific mode of surplus that cannot be overlooked and that is linked with our symbolic world-openness and with correlated interpretative acts that go beyond what we have called ordinary interpretation. When engaged in ordinary interpretation, nonhuman animals remain enmeshed—in varying degrees—in their Umwelten whose meaning structure is action-oriented, that is, configured in relation to their here-and-now practical pursuits. This is correlated with their capacity for only iconic and indexical signification insofar as iconic and indexical signs signify for nonhuman animals only in the here-and-now or imminent future.[44]

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42. To take a trivial example: even though utensils on a table could afford many activities, they are usually encountered as affordances for eating within the context of a meal. And meals are imbued with cultural meanings and norms comprehended by those who inhabit the requisite symbolic world.
43. A dog, for instance, may relate to a stick as an affordance for different kinds of action—e.g., as a thing-to-fetch, as a thing-to-chew-on. Similarly, the stick can be an ambiguous sign. When, for instance, the dog's owner comes toward it holding up the stick, the stick might be a sign of either the owner's anger or desire to play fetch.
44. I cannot enter here into the debate about whether certain nonhuman animals have been trained by humans to make use of symbols and in what way. Such blurring of boundaries would, however, not undermine the claims being made here. I am not defending a gulf between humans and nonhumans. For an insightful treatment of nonhuman primates and symbol use, see Deacon, *Symbolic Species*, 84–92.

Signification at the human level is more expansive and complex. The difference is not simply a matter of our ability to relate the present situation explicitly to the distant past or future and to the different ends that we pursue, even though this is an important aspect of symbolic world-openness. It is more so that the human Umwelt, as inscribed in inhabited worlds of symbolic meaning, carries an immense surplus of signifying potential that goes beyond here-and-now action-oriented meaning that our Umwelten share with other animal Umwelten. A deeper realm of meaning is always present in or beneath our here-and-now action-oriented perceptual field and can, as Mircea Eliade provocatively puts it, "irrupt" into the "immediate reality of [our] objects or activities."[45] This surplus of symbolic meaning means that, although we do not always engage in it, we are capable of what we may call a *symbolic* mode of interpretation, a kind of play with, or active exploration of, meaning that is more detached from here-and-now practically engaged pursuits.[46]

Symbolic world-openness as defined above carries with it a particular mode of God-openness.[47] Pannenberg offers us some useful resources to help articulate what I am suggesting here.[48] Every particular object or situation that we encounter carries its meaning by virtue of its relation to a wider semiotic whole. Meaning therefore has a part-whole structure, and particular meaning always presupposes a wider whole even if the latter is not explicitly formulated or attended to in the grasp of particular meaning. Inhabited symbolic worlds as defined above function as such wholes. Framed semiotically, I propose that God-openness refers to a specific aspect of inhabited symbolic worlds (or wholes), namely, the way in which they open up to, and inevitably formulate a vision of, the meaning of the totality of reality. We may designate this aspect of a symbolic world the *ultimate* horizon of meaning. This ultimate horizon is, of course, always questionable and therefore remains permanently open in terms of its possible formulations.[49] Nevertheless, our symbolic worlds must—and inevitably do—formulate it in one way or another.

God-openness so understood has been and still is most often given form through religious symbolic systems that articulate the ultimate horizon of meaning in relation to a divine reality.[50] Religious symbolic systems and the practices correlated

45. Mircea Eliade, *Myths, Rites, Symbols*, vol. 2, ed. Wendell C. Beane and William G. Doty (New York: Harper Colophons Books, 1976), 351.
46. As the anthropologist Alan Barnard notes, "symbols . . . enable us to play with meaning, to use analogy, to be creative." See Alan Barnard, *Genesis of Symbolic Thought* (Cambridge: Cambridge University Press, 2012), 9.
47. I say particular mode because I am open to explorations of other modes of God-openness not tied to symbolic capacities.
48. Here I draw from Pannenberg's analysis of meaning in his *Theology and the Philosophy of Science*, trans. Francis McDonagh (Philadelphia: The Westminster Press, 1976).
49. We may therefore also say that the ultimate horizon of meaning is itself situated against the backdrop of a further infinite or limitless horizon of possible meaning. More precisely then, God-openness refers to our openness to these two horizons.
50. Pannenberg, 297–345. See also Pannenberg's essay "Toward a Theology of the History of Religion," in Wolfhart Pannenberg, *Basic Questions in Theology*, vol. 2, trans. George

with them orient the various domain of practitioners' lives (personal, political, economic, ecological, and so forth) in relation to this divine reality. This divine reality, however formulated, thereby functions as the principle of unity between these various domain. Indeed, while this ultimate horizon that religions formulate in one way or another is not always present thematically in our everyday experience of meaning, it is, as Pannenberg points out, "implicitly invoked in every experience of particular meaning."[51] In other words, it shapes our everyday reality (or what Pannenberg characterizes as our quasi-Umwelten) and experience of it, even if only in an indirect sense.

Although the final section below develops this in even more detail from a theological perspective, we have already indicated one way to characterize God-openness as an aspect of the species-specific structure of the human Umwelt. Human Umwelten are God-open insofar as they are situated within symbolic worlds whose ultimate horizons extend to incorporate the meaning of reality as a totality. Through their symbol systems and correlated practices religions orient practitioners in relation to this ultimate horizon of meaning, but they do not do so only in the domain of reflective thought that is distinctively human. As practiced, religions carry the capacity to transform (or configure) the perceptual and pre-reflective domain of human meaning making (i.e., animality) in accord with this ultimate horizon.[52] Like many other religions, Christianity does so by offering its practitioners a habitable God-open symbolic world along with correlated practices that help facilitate its inhabiting. Indeed, as potentially transformed (or configured) by the Christian God-open symbolic world through the latter's inhabiting, human animality and the aspects of the Umwelt correlated with it are God-open in a more theologically significant sense, namely, open to the transforming activity of divine grace. It is precisely this transforming activity of divine grace that I sketch below in terms of self-transcendence understood as a transcendent configuration of human animality.

H. Kehm (Philadelphia: Fortress Press, 1971), 65–118. Pannenberg has been criticized for an essentializing theory of religion. See Gary Bollinger, "Pannenberg's Theology of the Religions and the Claim to Christian Superiority," *Encounter* 43 (Summer 1982): 273–85. Even if this critique is valid, Pannenberg's description of religion still applies to many religions, including Christianity. Pannenberg's claims about God-openness are also not to be read as an argument for God's existence. They only draw attention to an aspect constitutive of human existence. Pannenberg often also calls this aspect "religious." See Wolfhart Pannenberg, "Anthropology and the Question of God," in Pannenberg, *The Idea of God and Human Freedom* (Philadelphia: The Westminster Press, 1973), 80–98.

51. Pannenberg, *Theology and the Philosophy of Science*, 216.

52. Here I draw from Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, Inc., 1973). According to Geertz, religious symbols relate the common-sense domain of everyday life to a cosmic or ultimate horizon of meaning. Religions thereby carry the power to transform this common-sense domain: "[Religion] alters, often radically, the whole landscape presented to common sense." Geertz, *Interpretation of Cultures*, 122.

Section III: Human (*Umwelt*) Animality and Self-Transcendence as Graced Conversion

The clarifications offered above were necessary in order for us to develop the more provocative aspects of Meyer's proposal and challenge to theologians, namely, (1) that by defining humans as Umwelt-enmeshed no less than other animals, theologians can frame self-transcendence as a transcendent configuration of animality and (2) that theologians discover the operations of divine grace within human animality. As indicated already, Meyer does not offer sufficient clarification on how this all hangs together and how it amounts to a theological account of self-transcendence. How exactly is animality configured in a transcendent way through self-transcendence? How are the Umwelt and divine grace involved in this? In light of the conceptual clarifications developed above, this final section sketches an answer to these questions and thereby indicates one way forward for an appropriation of Uexküll's Umwelt-theory for the purposes of constructive theological scholarship attuned to the domain of human animality.

Progress can be made on this front if we first articulate self-transcendence in terms of one of its specific modalities, namely, religious conversion.[53] As Pannenberg often articulates it, self-transcendence refers to a reflective-interpretive capacity whereby we adopt different perspectives, question reality as we understand it, imagine other possibilities, reach new insights, value differently, and so forth.[54] To recall his specific phrasing, self-transcendence occurs whenever one transcends (or breaks through) the boundaries set by our limited and partisan perspectives on reality. This construal of self-transcendence already hints at something like conversion. However, understood more strictly in its modality of religious conversion, self-transcendence is a process where what occurs is something quite specific, namely, a transformation of one's ultimate horizon of meaning. The consequence of this is, in Bernard Lonergan's useful characterization, "something new that fructifies in inter-locking, cumulative sequences of new developments on all levels and in all departments of human living."[55] What I propose here is that all levels or departments of human living include the perceptual and pre-reflective Umwelt-domain of meaning making governed by the operation of habitus—that is, human animality as characterized in the previous section. Or, expressed differently, religious conversion is just as much a matter of transforming this perceptual and pre-reflective Umwelt-domain as it is of transforming the more

53. Here I follow Bernard Lonergan who, in *Method in Theology* (Toronto: University of Toronto Press, 1971), characterizes religious conversion as a modality of self-transcendence. What I offer below is not a theory of religious conversion per se but only a reflection on one aspect of Christian conversion. Conversion as outlined below need not require a dramatic single event to catalyze it.
54. As suggested earlier, certain nonhuman animals also clearly engage in similar acts, so there seems to be no good reason why we should not characterize them as also capable of modes of self-transcendence.
55. Lonergan, *Method in Theology*, 130.

reflective-interpretive domain of human existence. Using the conceptual tools we have developed thus far, it is the transformation of this domain through the process of conversion that I now want to articulate more clearly as a graced transcendent configuration of human animality.

Let us begin by gaining more clarity on conversion and its relation to divine grace, both of which can be articulated semiotically in line with the framework developed thus far. In the case of Christianity at least, the category of conversion puts us immediately in the domain of grace. I understand divine grace in, broadly speaking, Pauline terms: it is related explicitly to the good news of the gift of Jesus Christ and to the reception of God's Spirit by those who receive the good news through faith. Grace is simultaneously the power for conversion or a "renewal of the mind" (Rom 12:2 NRSV, used throughout), the telos of which is the creation of the "mind of Christ" (1 Cor 2:16) in the convert.[56] This conversion (renewal of the mind) involves first and foremost a transformation of a convert's ultimate horizon of meaning. Yet, as Paul claims in Romans 12:2, this transformation requires no longer being conformed to this "world" or "age"—that is, the social-cultural symbolic world (encompassing of shared meaning, classification, possibilities, value, common sense, and so forth) that an individual already inhabits and that is, in many ways, opposed to God.[57] The transformation of the ultimate horizon of meaning in accordance with the Gospel therefore entails a cascading series of consequences for the entirety of a convert's life. This graced renewal of the mind and its un-conforming from the "world" occur precisely through being opened to the Christian symbolic world and engaging in its correlated practices.[58] Neither the activity of divine grace nor Christian conversion can be abstracted

56. It is not possible here to enter into the complex theoretical debates concerning the nature and function of grace. For an in-depth overview of Paul that I draw upon, see John M. G. Barclay, *Paul and the Gift* (Grand Rapids, MI: Eerdmans Publishing Company, 2015). For a historical overview of theological debates about grace, see Stephen J. Duffy, *The Dynamics of Grace* (Eugene, OR: Wipf and Stock Publishers, 1993). For a view on grace in line with what I am proposing here, see Louis-Marie Chauvet, *Symbol and Sacrament: A Sacramental Reinterpretation of Christian Existence*, trans. Patrick Madigan and Madeleine Beaumont (Collegeville, MN: The Liturgical Press, 1995). Chauvet argues that grace is "not an object we receive, but rather a symbolic work of *receiving oneself*" via participation in the sacramental life of the church. Chauvet, *Symbol and Sacrament*, 140, emphasis in original.

57. The NRSV translates *aiōn* in Romans 12:2 as "age," while other translations translate it as "world" (e.g., NASB). As Barclay puts the point I am making here, Paul's language of grace "served to detach new communities from their previous cultural allegiances." Barclay, *Paul and the Gift*, 570. Barclay draws explicitly on Bourdieu's account of habitus in order to explicate this. See Barclay, 504–7.

58. By practices I mean something quite broad, including scripture reading, serving the sick and poor, prayer, preaching, worship, spiritual direction, and the sacraments. For our purposes here, I will have to leave underdeveloped the details of what exactly the Christian symbolic world is. It consists, among other things, of the Gospel and the narrative world of the Scriptures, doctrines, and other teachings and beliefs, values, and so forth. Whether we can talk about the Christian symbolic world in the singular is, admittedly, an open question. It is, of course, always intertwined with the wider shared cultural symbolic world that we inhabit.

from this symbolic world and its correlate practices of which the Christian church is the custodian. The activity of divine grace and the conversion it empowers is in this sense semiotic in nature.

The Christian symbolic world is offered to its practitioners as a habitable symbolic world, and the Christian church seeks to facilitate this ongoing process of inhabiting through its various practices.[59] In other words, graced conversion as described above is a process of habituation into the Christian symbolic world and the ultimate horizon of meaning that it articulates. A convert is, of course, already an inhabitant of a particular symbolic world by virtue of being a participant in a social-cultural-political community. Inhabiting the Christian symbolic world does not simply swap out one set of acquired habitus for another, just as it does not simply swap out one symbolic world for another. Instead, by means of participation over time in various practices that facilitate habituation, practitioners undergoing conversion transform the topography of their already inhabited symbolic worlds. They learn new narratives and concepts, make new distinctions and interconnections between narratives and concepts, prioritize new values, goods, and ends, attend to the world differently, and so forth. For instance, a convert learns that the cross signifies sin, judgment, grace, mercy, and divine love, that God opposes the proud and cares deeply for the poor, that ultimate fulfilment is not found in worldly prestige and riches. In this sense, inhabiting the Christian symbolic world involves the use of reflective-interpretive skills (or symbolic interpretation) through which the topography of a convert's symbolic world is transformed.

Yet this is only one facet of inhabiting. As with any symbolic world, the Christian symbolic world is inhabited in the proper sense of the term when, among other things, it begins to inform and transform the domain of human animality as articulated earlier—that is, the perceptual and pre-reflective mode of meaning making governed by the proto-interpretive operations of habitus. The consequence of this is, however limited in scope, the transformation at the pre-reflective level of the Umwelt's meaning structure in accord with the Christian symbolic world. We can articulate how this occurs in a twofold manner: First, inhabiting gradually prejudices what stands out pre-reflectively as a meaning-carrier, what meaning it carries, and how it lights up in terms of its affective and normative salience. Second, inhabiting alters what appears at the pre-reflective level as genuine possibilities for action presented by here-and-now

59. This occurred right from the beginning of the Christian movement, when the earliest followers of Jesus developed distinctive practices and sought to inhabit the Jewish Scriptures in light of Jesus's life, death, and resurrection. See Richard B. Hays, *The Conversion of the Imagination: Paul as an Interpreter of Israel's Scripture* (Grand Rapids, MI: Eerdmans Publishing Company, 2005). For a discussion of what I am calling inhabiting in the patristic era, see Luke Timothy Johnson, "Origen and the Transformation of the Mind," in *The Future of Catholic Biblical Scholarship*, ed. Luke Timothy Johnson and William S. Kurz (Grand Rapids, MI: Eerdmans Publishing Co., 2002), 64–90. For a contemporary anthropological account of religion that resonates with my claims here, see Tanya Luhrmann, *How God Becomes Real* (Princeton, NJ: Princeton University Press, 2020). Practices facilitate inhabiting in different ways. Baptism, for instance, facilitates inhabiting quite differently from, say, serving the poor or prayerful meditation on the scriptures.

situations.[60] In these ways, inhabiting the Christian symbolic world (ideally at least) transforms in a Christlike direction the proto-interpretive meaning-making operations that take place prior to our more reflective-interpretive acts.

The role that habitus plays within virtue ethics' account of practical wisdom may help us clarify this a bit further. Excellence in practical wisdom is attained through experience and the cultivation of both intellectual and moral virtue (habitus) within a particular community. It requires the formation of the intellect as well as those aspects of ourselves shared with nonhuman animals (e.g., passions). Its attainment is, moreover, evidenced by a particular mode of perception. Through experience and formation, the practically wise acquire, so to speak, a skilled eye such that they perceive "aright."[61] What they perceive is something like a meaning structure of the situation at hand and the genuine possibilities for action that are fitting and morally upright in relation to a given community. The emphasis here on perception indicates that we are dealing with something that is, partially at least, pre-reflective and whose operations are not always easily explained to those without the requisite skills (i.e., virtue). The Umwelten of the practically wise light up at the perceptual and pre-reflective level in a way that they do not for those who lack the requisite formation and skills. Excellence in rational deliberation is a crucial aspect of practical wisdom, but just as crucial is a skilled mode of perceptual and pre-reflective meaning making.[62]

Analogously, mature or converted inhabitants (i.e., disciples) of the Christian symbolic world can be said to possess a skilled mode of perceptual and pre-reflective meaning making. Put otherwise, the meaning structure of their Umwelten lights up pre-reflectively in a way that accords with the "mind of Christ." The perceptual and pre-reflective processes of meaning making governed by habitus are therefore not insulated from the transforming activity of God's grace, which is received and which empowers via the conversion process of inhabiting the Christian symbolic world. What I am articulating here is precisely what Meyer suggests theologians frame self-transcendence as—namely, a transcendent configuration of animality. This configuration occurs precisely when the perceptual and pre-reflective domain of meaning making within the context of here-and-now engaged activity begins to be informed by

60. The poor, for instance, should light up within a convert's Umwelt as a salient sign of Christ, and situations involving the poor should appear in terms of genuine practical possibilities for the carrying out of Christlike action. What I have in mind here is well captured by Mark Wynn's excellent account of how an insight at the conceptual level "effects a shift in the experience of sensory things, and thereby . . . enables the seer to make a new set of practical discriminations." Mark R. Wynn, *Renewing the Senses* (Oxford: Oxford University Press, 2013), 3.

61. Aristotle, *Nicomachean Ethics* 1143b11–14, trans. David Ross (Oxford: Oxford University Press, 2009), 114.

62. Indeed, habituation entails a diminishment of reflective-interpretive deliberation, something that is proper to experts in any specialized craft. "Unless habitus in some way inclines the rational power to one course, then whenever we have to perform an operation, we must always first make an inquiry about what to do." Aquinas, *Disputed Questions on Virtue*, trans. Jeffrey Hause and Claudia E. Murphy (Indianapolis, IN: Hackett Publishing Company, Inc., 2010), 4–5.

the Christian symbolic world. A theology of self-transcendence so conceived does not turn our attention away from the Umwelt and the domain of animality as does Pannenberg's framework. Indeed, it is precisely through the graced configuration of this domain of human animality that inhabiting proper of the Christian symbolic world occurs.

Conclusion

Meyer's proposal has opened up a particular trajectory of theological engagement with Uexküll's Umwelt-theory. However, as argued here, we must go into more detail than what Meyer offers if Umwelt-theory is to do genuine theological work. To this end, I have offered further clarity on a few important fronts: first, on the biosemiotic core of Umwelt-theory; second, on the species-specific structures of the human Umwelt; third, on how exactly the Umwelt relates to the category of human animality. Without clarity on these fronts, the affirmation of human Umwelt-enmeshment carries little content and does minimal theological work for what Meyer proposes—that is, an articulation of self-transcendence as a transcendent configuration of animality that is also attentive to the activity of divine grace in human animality.

The positive theological proposal sketched in the previous two sections is by no means the final say on what Uexküll can offer scholarship in theological anthropology. The possibilities are multiple. The analysis of Umwelt-theory offered here could, for instance, be developed further in dialogue with current theological scholarship engaging biosemiotics.[63] Such scholarship could also draw even more from Uexküll himself as well as from the burgeoning interdisciplinary scholarship that is developing Umwelt-theory in creative ways. Theologians might return to theological sources and ask questions about how perception and the senses are understood, their relation to animality and conversion or spiritual growth, and how this might shape a theological construal of the human Umwelt. This notion of configuring one's Umwelt in accordance with the Christian symbolic world also invites further explication. The converted life involves a continual inhabiting of the Christian symbolic world that transforms the perceptual and pre-reflective domain, but how this occurs and what practices help achieve it require interdisciplinary elaboration. Finally, we need much more careful analysis of the philosophical and political underpinnings of Uexküll's Umwelt-theory than what I have offered here.[64] A theological appropriation of *Umwelt*-theory should not be naïve to such underpinnings.[65]

63. For example, Nathan Lyons, *Signs in the Dust: A Theory of Natural Culture and Cultural Nature* (New York: Oxford University Press, 2019); Andrew Robinson, *God and the World of Signs: Trinity, Evolution, and the Metaphysical Semiotics of C. S. Peirce* (Boston, MA: Brill, 2010).

64. For a discussion of the politically conservative and anti-Semitic elements in Uexküll's thought, see Anne Harrington, *Reenchanted Science* (Princeton, NJ: Princeton University Press, 1996). For a treatment of its philosophical underpinnings, see Brentari, *Jakob von Uexküll*.

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