What is the significance of *aisthēsis* in the context of evolutionary process? The central claim of my talk is that an ecological understanding of *aisthēsis*—that is, of the plural modes by which species perceive and engage their surroundings—is necessary for an understanding of evolution at its most fundamental level. In other words, my argument is that we have to understand that which appears as meaningful to organisms if ever we hope to comprehend the history of evolution on Earth.

To support this claim, I draw on the works of Alfred North Whitehead (1861–1947) and Jakob von Uexküll (1864–1944) to offer an account of *aisthēsis* in the context of ecological history. Ecology from this view is an ongoing entanglement of values, concerns, and decisions, and it marks the space where the division between matter and meaning breaks down. In short, when we think time and appearance together, *aisthēsis* becomes that capacity which connects
each organism to an ecology of values that ingresses upon evolution in
the mode of inherited forms.

The talk proceeds in three sections. In the first section, I offer
as a matter of historical context the backdrop against which von
Uexküll and Whitehead made their claims. This background centers on
key moments in the formation of what Bruno Latour calls the Modern
Constitution, or the partitioning of the world into the regions of Nature
and Culture.¹ Von Uexküll and Whitehead provide important
alternatives to the lacunae left to us in this wake of this period, lacunae
that center on the relation of the human being to the larger picture
described by evolutionary naturalism.

Using this background as a jumping off point, I then explore
von Uexküll’s account of understanding and perception. A key element
of von Uexküll’s biology is that organisms do not passively receive
sense data and then respond automatically to stimuli, but that they
instead construct and interpret their respective territories of
engagement, deliberating within an aesthetic field of values and
concerns. Considering the entanglement of organized understanding
with bodily perception is thus essential to comprehending von
Uexküll’s work.

Finally, section three places von Uexküll’s theory of meaning in
dialogue with Whitehead’s philosophy. With von Uexküll and
Whitehead I argue that the values, concerns, and decisions of
organisms are not epiphenomenal features of evolutionary activity, nor

¹ See Latour, *We Have Never Been Modern*, chapter 2.
are they activities that emerged whole cloth with the advent of *Homo sapiens*; rather, they are in part constitutive and driving forces within evolution itself. The paper concludes by suggesting that ecology can serve as a new ground for philosophy and as an alternative to the Modern Constitution.

**The Modern Constitution**

The work of Whitehead and von Uexküll presents for us an important alternative to the lacunae left to us by modern philosophy and political theory. In this context, I take the modern period to refer to a particular geographic and social formation, issued predominately by Europeans beginning in the sixteenth century, and characterized in part by the creation of a speculative partition between Nature and Culture; that is, between a zone of determined mechanical action (Nature), expressed by the likes of Galileo and Newton, and a zone of normative deliberation and moral freedom (Culture), expressed by the likes of Hobbes and Kant.²

Central to modern European science and philosophy, this split takes its most exemplary form in the Cartesian and Lockean bifurcation between thinking and extended substance (*res cogitans* and *res extensa*) and between primary and secondary qualities. Craig McFarlane calls this partition the speculative anthropology of the moderns, its aim being to secure a space for human freedom, moral

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² See McFarlane *Early Modern Speculative Anthropology* for an extended discussion of this partition.
culpability, and political agency over a world of blind machination.³ This sovereign dispensation of Man’s will over Nature, then, issues forth in what Bruno Latour names the Modern Constitution, the reigning philosophy of traditional European humanism.⁴

But this speculative anthropology has only ever been a patchwork attempt to paper over the philosophical contradictions inherent to the Modern Constitution. It is at best a halfway house between naturalism and freedom. Instead of trying to explain how a world of brute mechanism yields to a human world of subjective agency and moral deliberation, hinged on the universal function of reason, the Modern Constitution opted to wager its success on a series of miracles—the Cogito, the Transcendental Subject, the Rational Animal, and so on.

Unfortunately, far from explaining the gap, these miracles served as little more than temporary placeholders as even in our present day we struggle to find a solution to the problem of freedom and mechanism. Indeed, it was the genesis of the human and her capacities for moral deliberation and reason that required description in the terms set by the new evolutionary picture. In other words, it was precisely the presence of the human that needed explanation since merely positing the special status of the human alone explained nothing.

³ See ibid., 1–31.
⁴ See Latour, We Have Never Been Modern.
It is here that von Uexküll and Whitehead open out into promising new territory, into an alternative to the Modern Constitution at once compatible with evolutionary naturalism and human agency. To describe these alternatives, I turn first to von Uexküll’s speculative biology and then to Whitehead’s process metaphysics. Needless to say, the edifice of modernism will not be torn down today, but we might make a bit of headway that will draw the human and the nonhuman closer together.

**Understanding and Perception**

Von Uexküll takes a broadly Kantian approach to his biology. One implication of this approach is the way it complicates the distinction between understanding, often construed as a higher-order, cognitive or linguistic ability, and sensory reception, often construed as a lower-order, somatic or bodily ability. In the same way that Kant recognized that humans do not just receive sensory information but also organize and shape it in a particular way, von Uexküll imparts an experience-shaping capacity to all living beings. For von Uexküll, the constructed world that appears to the organism is related to the organism’s mode of understanding, which in turn is related to the organism’s bodily capacities.

Aesthetic forms of experience constitute what von Uexküll famously calls the “umwelt,” the “appearance-world,” the “surrounding-world,” the “world-picture,” or the “dwelling-world.” In this account, each organism is a center of experience. As a center
among other centers, the organism emerges at an intersection of appearance-worlds, the surrounding milieu an entanglement of aesthetic engagements among species rather than a mute world of determined mechanism.

In each appearance-world different elements within the surrounding ecology are rendered present to the organism while many others remain absent. Each of the elements within an appearance-world remain unknowable apart from their appearance to a certain mode of interpretation. By bringing presence to reality in different ways, each organism is participant in what von Uexküll calls, “functional cycles of meaning” where “every carrier of meaning becomes the complement of the animal subject.”

Cycles of meaning are central to the valuations and decisions of organisms, and, through their encounters with such cycles, organisms evidence that conceptual categories—marked by basic capacities to identify “friends,” “enemies,” “prey,” “mates,” “food,” or “shelter,” for example—are instantiated at a very basic level of biology. Indeed, for von Uexküll, the cognitive and the living emerge contemporaneously. To have a mind is to be alive and to be alive is to have a mind. For von Uexküll, contrary to the partition of the Modern Constitution, concerns and decisions are part of the nonhuman world and exist apart from the valuations of human onlookers.

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5 von Uexküll, A Foray into the Worlds of Animals and Humans, 146.
6 Mind is life, as Evan Thompson might say. See Mind in Life.
The organism is, from this view, the factor that composes space and time into a particular qualitative arrangement, and it is that which appears as a certain kind of meaning carrier within the appearance-world of another organism. The take away here is that there is a symbiosis playing out at the subject–meaning level. In other words, ecology for von Uexküll is necessarily about transactions of meaning, translations of value, and transformations of significance.

By placing the qualitative sphere of meaning, value, and decision as simultaneous with—or even as the other side of—the quantitative sphere of number, extension, and motion, von Uexküll effectively overcomes what Whitehead calls the bifurcation of nature into primary and secondary qualities. Whitehead, like von Uexküll, sees perspective as the gradual emergence within the evolutionary process of gradations in the identification of relevance and importance among species.  

This emergence of selective emphasis as a capacity of the organism yields to Whitehead’s account of understanding as the gathering of detail into aesthetic pattern, a technique of life that allows for varying degrees of limitation and selection within the perceptual field. Selection, importance, and expression are thus central to Whitehead’s account of evolutionary dynamics. Stated differently, selective emphasis has as its data the expressive character of other beings, beings that, through their vividness, emerge for species-

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8 See ibid. 65 and 73.
specific reasons from within the larger ecology. Let’s now take a closer look at how Whitehead arrives at this conclusion.

**Whitehead’s Ecology and Aesthetics**

Whitehead charts an interesting if less-traveled path among twentieth century philosophers. Rather than follow the Kantian route of critical philosophy, which shapes its questions in terms of securing a priori conditions of human knowledge, Whitehead instead pursues the ontological conditions necessary for the emergence, transformation, and perishing of beings (actual entities), both human and beyond.

In other words, Whitehead wants to know not how the world emerges from the subject (Kant’s question) but how the subject emerges from the world. That is, Whitehead pursues a cosmological understanding of world over and beyond the Kantian notion of world as regulative ideal used to clarify and systematize the ideas of reason. It is the aim of speculative philosophy, then, to describe the manner in which the subject emerges from a world that is not the world of the

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9 See Gaston, *The Concept of World from Kant to Derrida*, 12. A full exploration of the difference between regulative and cosmological understandings of world is beyond the scope of this paper. However, suffice to say that any speculative philosophy worth its salt must acknowledge this difference and overcome it, lest we slip back into the dogmatism of pre-critical (i.e., pre-Kantian) metaphysics. The risk is that instead of producing a new realist metaphysics, as is Whitehead’s aim, we instead produce another in a long line of what Kant called transcendental illusions, which Gaston helpfully describes as any “subjective view that takes itself as an objective summation of things as they really are” (10). Gaston continues to describe the challenge before us: “Before critical philosophy it was easier to speak of the world as something ontologically given. It was also easier to speak of a concept of world in general on this basis. Kant implies that there can be no concept of world in these terms and that we must use the idea of the world in general within the epistemological limitations and possibilities of reasoning” (17). Whitehead’s challenge, which I share, is to reconsider the possibility of a cosmological account of world beyond human reason. (Note here that for Kant the issue was never a question about the existence of a reality independent from or external to human thought but whether or not we could ever give an adequate account of such a world.)
subject’s own making, a world anterior to thought that is not limited to the cognitive or epistemological structures by which the subject constitutes its own relation to this world. And this of course is a very ecological question.

Like von Uexküll, Whitehead recognizes that human existence is entangled within a larger ecology of experience and action. The question of reality as it exists outside of epistemic restriction is thus transformed to the extent that the knowing subject and the known world are placed within the same cosmic territory— we move from words and representations to actions and transformations, to one part of the cosmos articulating itself to another. However, in Whitehead, as in von Uexküll, there is a distinction between the way reality is partially disclosed or rendered available and the reality that escapes availability to perception.

Indeed, for Whitehead the organism is that creature which transforms reality and appearance through the folds and capacities of its body, and “In this way there is an intimate, inextricable fusion of appearance with reality.”10 The fusion is an activity or a gesture, an event of partial disclosure, that figures reality into a graspable form within a moving and temporary moment. This fusion, unique to each organism, has important consequences for how we understand evolution in that, from this view, appearances, decisions, and concerns play a constitutive role, over time, in the evolution of species.

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Placing appearances within time yields us a kind of lived time, or time as duration, to use Bergson’s term. When appearance is included as ingredient in lived time, we can see that the organism’s responses to aesthetic engagements accumulate in the form of memory, as a kind of conservation of lived experience, a method by which the past maintains an influence on the present. Crucially, this accumulation of memory is from a physiological perspective a reorganization of the body, brain included, and not merely an ongoing capture of data stored in a fixed part of the organism. In other words, appearances captured in the body over time change the organization of organisms.

Thus for Whitehead there can be no firm distinction between an organism’s quantitative characteristics and its qualitative mode of valuation. An organism’s physiology is, to a large extent, an inherited form shaped by the ecologies of appearance and concern it finds itself within. Its mode of valuation is both outcome and participant within the aesthetic community of interaction of which it is a member. Decisions, concerns, and values are enfolded into each organism and, sedimented over time and subjected to communal processes of evolutionary selection, become part of the diversification of species.

Whitehead’s cosmology in this way acknowledges that the conditions of possibility of experience have their own conditions of existence set by the ecological conditions of reality. In Whitehead’s approach, the ground, to use a traditional philosophical term, is not a primordial layer that sits as a backdrop upon which events occur;
rather, for Whitehead the ground is a shifting and co-implicative terrain of diverse and evolving beings, a collision of multiple trajectories, lured in different ways by different concerns and possibilities.

Whitehead and von Uexküll thus gesture toward what Vicki Bell calls an *ecology of concern*.¹¹ The organism concerns itself with other organisms and is a center of concern for those organisms. The emergence, existence, and perishing of organisms—their actual historical adventures as living beings—is in this way predicated upon the risks and possibilities activated by the organism’s aestheticvaluations and judgments. Such judgments are by their very nature not rule-based but value-based, which is to say they are about situated and pragmatic concerns, possibilities, and constraints. In Bell’s own words, “To use the term ecology, then, is an attempt to name this creative movement of concerns between elements in relation with one another.”¹²

**A Philosophical Ecology**

I close this talk by considering a few traditional philosophical categories—including the distinction between appearance and reality and between the empirical and the transcendental—in a new light informed by the ecological perspective. This perspective offers one alternative to the speculative anthropology of the moderns, and in each case my hope is that it becomes evident that an ecological account

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¹² Ibid., 6.
of aisthēsis, or the plural modes by which species perceive and engage their surroundings, is necessary for an understanding of evolution at its most fundamental level.

First, appearance and reality. Von Uexküll and Whitehead both deal in this distinction, albeit in slightly different ways. Von Uexküll follows the traditional Kantian distinction between appearing phenomena and inaccessible noumena, extrapolated to include the multispecies collectives that comprise ecosystems. We saw that Whitehead also plays in the language of appearance and reality, but that he places this distinction in the context of metaphysical process.

Each account thus opens out, in its own way, into an ecological zone that allows us to see that the distinction between what is present and what is absent cannot be fixed. Ecological philosophy means that, when we include evolutionary process, there is an ongoing breakdown between presence and absence, between appearance and reality, and that this interplay is constitutive of organisms as such and not humans in particular.

Second, the empirical and the transcendental. Von Uexküll’s ethology and Whitehead’s philosophy of organism give the lie to Kant’s transcendental schema. The transcendental in Kant’s formulation is a universal structure within which particular empirical occasions are shaped and unfold as contents of lived experience. However, from the ecological view, it is the transcendental structures themselves that must be given a genetic account in terms of a more primary and ecological cosmogenesis.
If ecology is to become a new ground for philosophy, then the transcendental and the empirical need to be re-thought as relational and evolving categories. What is transcendental structure for one organism is empirical datum for another, and what is given as a structure that affords certain appearances is neither fixed nor universal; it is rather developed, multispecies, and plastic. In other words, if lived experience is grounded in a certain kind of cognitive structure that allows empirical content to emerge in a certain way, then it is also the case that the structure of the transcendental is itself grounded in an external ecology of actuality and circumstance.

In the view of a philosophical ecology, then, the transcendental is not an empty, universal space within which phenomena can emerge in a particular way but is instead a historically saturated medium, a medium filled with the tributaries of achieved understanding along which flows of thought constellate themselves as partial organizers of experience. Mind is just such an intersection of rivers and tributaries; not a dialogic of easily opposed terms (e.g., “empirical” and “transcendental”) but an ecologic, a creative multiplicity of convergent events preserved over time.

Along the lines of grounding the empirical and the transcendental within a larger ecology of being, Peter Sloterdijk writes of, “the one earth, which serves as the bearer of world formations,”13 that “[earth] is now the transcendental star that comes into play as the

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13 Sloterdijk, In the World Interior of Capital, 10.
locaitional condition for all self-reflections,”¹⁴ a star that “carries flora, fauna, and cultures”¹⁵ and is “the exemplary hybrid in which the empirical is unified with the transcendental.”¹⁶

Thus in the ecological view it is the transcendental which is attached to and dependent on the terrestrial. In this geocentric account it is the geological conditions of the Earth that closely ground and enable the activity called philosophy. Such a geocentric philosophy entangles the human and the nonhuman in a way impossible for the Modern Constitution to permit.

To conclude, then, a philosophical ecology complicates relations between appearance and reality and between the empirical and the transcendental. On this view, appearance and reality are not fixed domains but are ecologically entangled territories issued by all life forms. This means that ecology is not about organisms in environments—surrounded by them, situated by them, and so on—but that ecology is an event much more ambiguous in nature; the possibility space is itself ecological, evolving, and recursive. Reality in this sense has something like an ecological structure, and the cosmos is something like an ecological event. Such a world does not oblige easy partitions between res extensa and res cogitans but instead gives way to res publica, a gathering place, a common world composed of humans and nonhumans.¹⁷

¹⁴ Ibid., 25.
¹⁵ Ibid., 29.
¹⁶ Ibid., 250.
References


