

UNIQUENESS IN CONTEXT

by Nancy R. Howell

Abstract. Wentzel van Huyssteen's Gifford Lectures, published as *Alone in the World? Human Uniqueness in Science and Theology*, accomplish critical and constructive thinking about interdisciplinary reflection on science and religion and about the meaning of human uniqueness. One approach to discussion of van Huyssteen's text entails consideration of three issues: the contextual character of research on humans and animals, the difficult problem of defining uniqueness, and the important consequences of exploring human uniqueness. Evolutionary biology and primatology contribute specific scientific insights.

Keywords: epistemology; primatology; transversality; uniqueness (animal and human)

Wentzel van Huyssteen's Gifford Lectures, published as *Alone in the World? Human Uniqueness in Science and Theology* (2006), deserve a great deal of praise for accomplishments in two areas. The first accomplishment is revision of interdisciplinary reflection in science and religion, which proposes working at the boundaries of the two fields in terms of evolutionary epistemology (or postmodern embodied knowledge) and transversality (or interdisciplinary spaces between disciplines) (pp. xv, 8). The second is careful exploration of the interdisciplinary problem created by the concept of human uniqueness (p. 8). By definition, the accomplishments (which van Huyssteen names as his goals) identify human uniqueness as an issue that must be explored with attention to context.

The focus of my response to van Huyssteen's Lectures engages both goals, attending specifically to relevant contributions from evolutionary biology and primatology.

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CONTEXTUAL CHARACTER OF RESEARCH ON HUMANS
AND ANIMALS

Postfoundationalist epistemology, according to van Huyssteen, rejects generic, abstract, and acontextual dialogue between science and religion (pp. 4, 40). The point is important to van Huyssteen's approach, and he writes:

This increasing awareness of the radical social and historical contextuality of all our rational reflection should make it abundantly clear that in interdisciplinary dialogue the rather vague terms "theology and science" should be replaced by focus on specific theologians who are trying to do very specific kinds of theologies and are attempting to enter into interdisciplinary dialogue with very specific scientists, working within specified sciences on clearly defined, shared problems (pp. 4–5).

Important within traditions and epistemology is van Huyssteen's claim that "human experience is always interpreted experience" (pp. 13, 28). His postfoundationalist epistemology alerts us to the culture-bound, theory-laden character of rationality, often overlooked in science and religion scholarship (pp. 4–5).

What interests me, however, is how well human uniqueness is understood in context. As van Huyssteen argues, science-theology dialogue is far more productive when the context is specific with regard to both science and theology. Specificity frees science and religion scholarship from irrelevant abstraction and enables coherent and meaningful argumentation. However, a pertinent question concerns how narrow the focus may be without compromising critical reflection and more comprehensive (yet specific) argumentation on the science-theology issue at hand. How broad must the context be in order to assure that consideration of a specific issue is not misleading or ill-defined?

I turn to primatologist Frans de Waal for an example of how context is crucial in science-religion scholarship. De Waal describes Kinji Imanishi as the Japanese primatologist who introduced an innovative approach to primate behavioral studies because of the absence of human-animal dualism in the culture and religions that shaped Japanese worldviews. In Japanese religion, no concept of the soul functioned to separate humans from animals. Consequently, Japanese observers of primate behavior harbored no notions of human superiority and experienced no reservations in ascribing emotions and intentions to animals. While Western science was paralyzed (to borrow de Waal's word) by its cultural assumptions, Japanese openness to the continuity of humans and animals resulted in an easy acceptance of evolutionary theory. Animal studies were perceived by Japanese scholars to be critical for interpreting human origins and society. Methodologically, then, Japanese primatologists approached behavioral studies by naming individuals and expecting to observe diverse identities and personalities, active mental lives, and animal culture. In the West, meanwhile, Louis Leaky in the 1960s adopted a similar research agenda, and Leaky sent Jane

Goodall and others to study apes in the wild (de Waal 2001, 116–17). By the time Leaky and company began their project, Japanese primatologists had already established “the importance of kinship, the unexpected complexity of primate society, and the degree to which every group was different” (2001, 117). Further, Imanishi had posed the issue of primate culture and cultural transmission (pp. 117, 195).

To be clear, my point is not to demonstrate that Japanese science is somehow better than Western science or to demonstrate that Japanese or Western worldviews compromise scientific investigation. Both Western and Eastern science are embedded in cultural contexts. Imanishi’s biases included disbelief in human-animal dualism and confidence in the relationship of individual identity to group identity (de Waal 2001, 125–26). Consequently, his cultural location led his scientific work to focus on harmony rather than competition in nature and among animals (pp. 119–20).

Even though Imanishi’s scholarship was plagued by unnecessary opposition to Darwinism, by the 1960s his research methods were adopted by Western scientists, whose previous work understood primates to be undifferentiated individuals within a species (p. 193). De Waal describes Imanishi’s contributions to science as field-transforming for the West:

The concept of the individual in its society amounts to a momentous theoretical contribution by Japanese primatology to the study of social animals. The ideas that individuals matter, that their identities are linked to their place in the whole, that they need to be followed over time, and that human empathy helps us understand them, are so obviously correct that armies of scientists now apply this perspective, often without knowing where it comes from. (pp. 193–94)

Perhaps most significant for discussion of van Huyssteen’s Gifford Lectures is de Waal’s conclusion regarding the cultural contexts of primatology and the concept of human uniqueness. He writes, “Free from hang-ups about *human uniqueness* and the primacy of individuals, Japanese primatologists were mentally primed for a simple observation that forever changed our field” (de Waal 2001, 195; emphasis added). Although both Eastern and Western worldviews, cultures, and religions shape science, assumptions (which sometimes are “hang-ups,” to borrow de Waal’s language) have potential to expand or limit methodology and theory building in science.

Three questions draw de Waal’s discussion explicitly into dialogue with van Huyssteen’s Lectures. First, should we expect Japanese scientists to be as committed to the search for human uniqueness as Western scientists? Clearly by de Waal’s analysis and assessment, we cannot expect similar commitments to human uniqueness in Japanese and Western primatology. By van Huyssteen’s postfoundationalist approach to theology and science, we should expect culturally determined differences to arise in diverse contexts.

Second, to what extent has Western paleoanthropology retained a religious and cultural worldview committed to human uniqueness? Van Huys-

steen identifies human uniqueness as the shared research trajectory of theology and the sciences (2006, 8). His creative contribution to science-theology dialogue is displacement of *human uniqueness* from more generalized metanarratives in order to place the term in the sociohistorical context of theologians and scientists (p. 26). The sociohistorical context of Charles Darwin's science included a Western theological worldview that strongly urged a concept of human uniqueness—perhaps suggesting how theology impressed views on science. Van Huyssteen, for example, attributes to Darwin the association of human uniqueness with the “evolution of our superior intellectual facilities and our social habits” (p. 74). Citing *The Descent of Man*, van Huyssteen reminds us that Darwin characterized humans in terms of “God-like intellect” in animal-like bodies (p. 74).¹

Perhaps the acknowledgment that historical science was tied to Western Christian thought is not remarkable; however, are more contemporary thinkers still tied to the ancient Christian question about human uniqueness? Van Huyssteen describes Ian Tattersall's scholarship in language reminiscent of Darwin. Tattersall defines human uniqueness in terms of what separates us from animals, as van Huyssteen says, “by mapping the size of the cognitive gulf that separates us from the great apes” (p. 188). Tattersall further understands humans not as “an ‘improved version’ of its ancestors” but a new and qualitatively distinct thing (van Huyssteen 2006, 190). Van Huyssteen cites similar claims in Terrence Deacon's work, which claims that humans are not just more intelligent but differently intelligent than other animals (van Huyssteen 2006, 236). My point is not to say that van Huyssteen, Tattersall, or Deacon is mistaken but to emphasize that Western worldviews and social locations alongside Christian theology probably make such claims predictable in science because questions for scientific investigation arise in a particular context. Scientific claims appear to be reminiscent of Christian historical theology in its quest to define the image of God (*imago Dei*) and human uniqueness in contrast to animals.

Given agreement with van Huyssteen's argument that particular science and particular theology inhabit particular social locations, my third question is, To what extent does van Huyssteen's method demand *comparative* interdisciplinary and postfoundationalist theology-and-science dialogue? Here two observations already mentioned are important. First, recall that van Huyssteen claims that theology-and-science dialogue must deal with specific problems through the work of specific scientists and theologians. Second, remember the value of de Waal's insights about diverse approaches to primatology that have origins in Eastern and Western cultures and religions. The advantage of affirming van Huyssteen's claim and insisting that the focal theological and scientific positions are insufficient apart from some larger or alternative position is critical perspective. Van Huyssteen's methodology has achieved the important task of emphasizing the social location of science and theology but has not argued for equally important

strong reflexivity, a term devised by Sandra Harding to name the importance of critical reflection on our assumptions. Strong reflexivity requires the scholar, observer, or researcher to achieve critical distance from his/her project in order to engage the socially situated particularity of the project in relation to other cultural projects and the lives of Others (by whom Harding means those marginalized by gender, race, or class) (1991, 163). Strong reflexivity completes the strong objectivity, which is achieved by awareness of the social location of the research project and its background beliefs (1991, 149). Cross-cultural and religious comparative reflection exposes biases, values, and assumptions and, therefore, raises fundamental questions about approaches to the concept of human uniqueness.

DIFFICULT PROBLEM OF DEFINING UNIQUENESS

A remarkable range of terms expresses the scope of observed traits and behaviors among animals and within species: *genetic variation*, *differences*, *species specificity*, *biological diversity*, *distinctions*, *separations*, and *uniqueness*. The difficulty with all comparative terms is the logical problem of equivocation, which makes relative terms imprecise and misleading. In addition, logical fallacies that confuse whole and parts can confuse the behavior or traits of individuals within a species with the species itself. A careful thinker, van Huyssteen rightly notes that we have no guarantee that science and theology mean the same thing by the term *human uniqueness* (2006, 9). Part of the difficulty may rest in the scientists' tension between human continuity with animals and human uniqueness vis-à-vis animals, about which van Huyssteen writes, "[Some] scientists quite specifically prefer to talk about human uniqueness today, even as they focus on the close connections between humans and animals (especially primates), and are highlighting our close ties to the animal world" (2006, 125).

In an effort to define or describe human uniqueness, van Huyssteen catalogs several lists of proposed uniquely human traits or abilities in dialogue with various scholars:

- experience of guilt, shame, and pride
- anticipation of events far in the future
- invention of metaphors
- speaking language with grammar
- reasoning about hypothetical circumstances (p. 36)
- emergence of art, technology, religion, and science (p. 42)
- creation and transmission of complex culture (p. 38)
- expression of consciousness, self-awareness, and intelligence
- capacity for rational decisions (p. 100, citing Holmes Rolston III)
- survival as the sole hominid species (p. 53)

- imperative to understand (p. 76, citing Nicholas Rescher)
- identity as moral animals (p. 289, citing Christian Smith)
- discrimination and creativity through consciousness and self-consciousness (p. 290)
- characterization by numerous general, morphological, and behavioral definitions (as noted by paleoanthropology) (pp. 201–3)²

With no lack of proposals for characteristics that separate humans from both animals and hominid ancestors, the critical issue is to assess what differences are significant.

Marc Bekoff, who specializes in cognitive ethology and canid behavior in particular, helpfully considers what *difference* and *uniqueness* really mean. Bekoff contends that comparisons of species are difficult and misleading if undertaken apart from the species' contexts (2002, xx). Animals' abilities are often not usefully compared across species contexts because each animal species' abilities are a matter of fit and adaptation to particular biological and social contexts (2002, 86).

Bekoff further notes that individuals within a species differ from each other. Behavioral and personality diversity exists within a single species, and individual differences are important (p. xviii). Traits of an individual may reflect the nature of the individual rather than express representation of a species-wide behavior (p. 54). Bekoff criticizes generalizations about intelligence and cognition, which may reflect the limitations of observations rather than the limitations of animals. He is fond of reminding us that absence of evidence is not evidence of absence. Conclusions drawn from observations require humility because "generalizations about cognitive skills of species are based on small data sets from a small number of individuals who may have been exposed to a narrow array of behavioral challenges" (p. 98). Bekoff emphasizes that concentration on individual variation rather than species-level analysis may be important for cognitive ethology (p. 98).

With regard to van Huyssteen's discussion of human uniqueness, Bekoff's most relevant claim is that all species exhibit uniqueness. Even where similarity is acknowledged, difference is present because similarity does not imply identity (p. 138). Bekoff quips that even if joy in dogs differs from joy in chimpanzees, that difference does not negate the existence of dog-joy or chimpanzee-joy (p. 119). *Uniqueness* is not reserved for a single species, including humans. Bekoff writes, "Are humans unique? Yes, but so are other animals. The important question is '*What difference makes a difference?*'" (p. 138).

Van Huyssteen wrestles with the relationship of human distinctiveness and value superiority over animals: "What does human distinctiveness mean in terms of the evolution of imagination, of symbolic propensities, of cognitive and linguistic abilities, and of moral awareness, and should we re-

view our theological notions of the *imago Dei* so that it does not imply a value superiority over animals?" (2006, 43). Following his question, van Huyssteen is clear that the intention of his theological reflection is to revise the concept of the *imago Dei* in a way that honors the continuity between humans and animals and that respects *the uniqueness of the animal world* (p. 43). The latter point is critical in light of Bekoff's clarity about difference and uniqueness in the animal world. Does van Huyssteen establish what he means by *uniqueness* in the animal world? Is the reference to the whole animal world, to species specificity, or to individual uniqueness within species?

Thinking back to the lists of proposed traits and behaviors that make humans unique and considering Bekoff's nuances regarding difference and uniqueness, I am perplexed at how difficult establishing similarity and difference between humans and animals is. Two examples suggest how difficult.

First, one claim is that anticipation of events far in the future is unique to humans (van Huyssteen 2006, 36). If humans are compared to apes, can observations establish what is similar and different in planning and anticipation? A recent article in *Science* raises the scientific debate about whether planning for future needs is a uniquely human adaptation. "Apes Save Tools for Future Use" by Nicholas J. Mulcahy and Josep Call (2006) reports that bonobos and orangutans selected, saved, and transported tools used to get an award from an apparatus. Tests were designed to observe behavior after one-hour and fourteen-hour delays between collecting and using tools, and a further experiment showed that animals can succeed without seeing the apparatus. Mulcahy and Call conclude that "findings suggest that the precursor skills for planning for the future evolved in great apes before 14 million years ago, when all extant great ape species shared a common ancestor" (p. 1038). Mulcahy and Call establish that some great apes anticipate and plan for the future.

Roger Fouts interprets chimpanzee behavior as planning for the future in one anecdotal account of Washoe's elaborate deception. Three-year-old Washoe, who is best known as the female chimpanzee most skilled with American Sign Language, is reported to have behaved rather suspiciously by staring under rocks in the garden for a long time, which distracted Fouts, who (as a graduate student) became curious about her behavior. Finding nothing unusual in the rock garden, Fouts became absorbed in note-taking while Washoe climbed back into her tree. After a time, Washoe suddenly came down the tree, appearing to Fouts to have fallen, but she ran into the trailer, accessed a cabinet accidentally left unlocked, and ran from the trailer with a soda pop into the safety of her tree. Washoe apparently observed and remembered that Fouts had failed to lock the cabinet and planned an elaborate distraction to lure him away from the trailer into the rock garden. Fouts describes Washoe's behavior as "a level of planning

and deception beyond anything I thought her capable of” (Fouts and Mills 1997, 46). Anecdotal cases are less convincing than more systematic studies, but Fouts clearly attributes planning to Washoe’s behavior.

Craig Stanford’s theory about hunting among primates may suggest that social relationships entail anticipation of future alliances, even though Stanford does not position his theory in the debate about whether great apes anticipate and plan for the future. Stanford’s book *Significant Others: The Ape-Human Continuum and the Quest for Human Nature* proposes that “meat-eating and human origins revolve around the use of meat in the market economy of ape and early human life” (2001, 57). Among social animals, such as chimpanzees, meat functions as currency in a social economy. Apparently, chimpanzees, in essence keeping a mental balance sheet, must be aware of social debts and credits in order to form appropriate alliances. As part of their social network, chimpanzees, whose diet does not depend on meat, barter to pay debts for past social connections or to assure future alliances, mating, and grooming. Similarly, human ancestors likely used and valued meat as a medium of exchange (Stanford 2001, 57–58). While building an analogy between human ancestors and chimpanzees, Stanford attributes not only the ability to assess and remember the status of social relationships but also the ability to plan and barter toward future social relationships.

The point of the examples is to consider what it means to say that humans are unique with regard to anticipation of the future. Clearly humans are not absolutely unique in the capacity to plan for the future, and if not *unique* in the strict sense of the word, what kind of differences exist between humans and other great apes?

A second claim about human uniqueness associates imagination, productivity, and creativity with language, suggesting that language and symbolic abilities define embodied human uniqueness. Van Huyssteen writes, “From a paleoanthropological point of view, symbolism should therefore be seen as part and parcel of turning communication into language, *but the use of symbols separate from language, as in cave paintings and abstract signs, could only have been a product of language*” (2006, 231). Such a claim raises again the issue of human uniqueness in relation to chimpanzee behavior. What shall we make of chimpanzee art, aesthetics, and language? Do chimpanzees require some kind of human-devised language in order to create?

Desmond Morris, from de Waal’s account, described the painting of Congo, a chimpanzee, as controlled and beautiful with energetic style, symmetrical coverage, rhythmic variations, and eye-catching color contrasts. Once Morris succeeded in taking a fan-shaped painting away from Congo, and when the unfinished painting was returned to the chimpanzee, Congo completed the pattern, which suggests a sustained aesthetic sense and direction of the activity. In 1957, an anonymous showing of Congo’s paint-

ings received good reviews from critics who did not question that the paintings constituted art (de Waal 2001, 167–69). Congo, a chimpanzee not part of language studies, created paintings that reasonable humans interpreted as art.

Washoe, who is quite skilled with American Sign Language, and other signing chimpanzees at the Chimpanzee and Human Communication Institute of Central Washington University create paintings. The distinguishing ability of the chimpanzees who know American Sign Language is that they not only paint but also title their paintings.

Some observers attribute art and aesthetics to chimpanzees, both those chimpanzees who acquired human language forms and those who were not part of language studies. How might the uniqueness of humans be defined in terms of art, creativity, and language in light of chimpanzee similarities and differences?

Defining human uniqueness is a cumbersome and problematic project, which inspires a number of questions. What is the level of similarity in related behaviors, and what is unique to each species demonstrating the behaviors? What level of comparison between great apes and extinct hominids is reasonable? What might be learned about human uniqueness, origins, and evolution from primate species who continued to evolve long after some hominids disappeared? What does it mean that similar behaviors occur in creatures with brains having structural and functional differences? What kind of “cognitive fluidity” is in play among primates who learn human behaviors in the lab and respond with their own interpretation of planning for the future or creating of art?

IMPORTANT CONSEQUENCES OF EXPLORING HUMAN UNIQUENESS

I already have noted two imperative recommendations for van Huyssteen’s postfoundationalist epistemology and the quest for human uniqueness. First, with agreement that interdisciplinary work requires attention to specific theological and scientific scholarship situated in context, I urge testing conclusions and analyses by appeal to diverse sciences and religious traditions. The dialogical scholarship must be concrete and particular (rather than abstract), but must also aspire to strong objectivity and strong reflexivity, which expose damaging biases.

Second, in full agreement with van Huyssteen’s commitment to affirming human continuity with the animal world while learning to speak of human uniqueness, I urge developing our capacity to speak of animal uniqueness at the individual and species level. We must struggle with the slippery language of similarity and difference, noting the differences in apparent similarities. With van Huyssteen, I hope that the word *uniqueness* is not synonymous with value superiority, especially when applied to humans.

Finally, both Marc Bekoff and Wentzel van Huyssteen warn that how we speak of humans and animals is a moral concern and has moral implications (Bekoff 2002, 138). Van Huyssteen writes:

Moreover, we will soon see that whatever we define as our true “humanness,” or even our human uniqueness, ultimately reveals a deeply ambivalent moral choice, for we are not just biological creatures, but as cultural creatures we have the ability to determine whom we are going to include, or not, as part of “us.” Therefore, talking about human uniqueness when defining ourselves implies a crucially important moral dimension precisely because the inclusion or exclusion of others as “fully human,” or not, gives shape to the social and cultural contexts we create and experience. (2006, 47)

The moral valence of human uniqueness has consequences with regard to the “us” and “them” divisions between humans and animals, which easily serve divisively to segregate humans.

Van Huyssteen is attentive to dangerous dualisms between minds and bodies, nature and culture, and animals and humans. Affirming both mind and body, his description of humans as embodied brains respects embodiment without reducing humans to either matter or mind. Connecting nature and culture through emphasis on human continuity with animals and affirmation of human embodiment, van Huyssteen stresses that embodied human animals are the natural locus of art, religion, science, and culture. Cautious about animal-human dualism, his writing is attentive to humans as animals, aware of the evolutionary continuity of humans with animals, and critical of equating human difference or uniqueness with value superiority. As a result, Wentzel van Huyssteen’s scholarship is exemplary in demanding that science and theology remember the moral consequences of defining human nature for other animals and marginalized humans.

NOTES

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1. See also Nancy Tuana, who in *The Less Noble Sex* (1993, 36–39 and 66–67) traces nuanced connections among Christian thought, Western philosophy, and science that shaped Darwin’s views about gender and race, which included the view that women and Africans are closer to animals and less evolved than European males.

2. To conserve space, I refer readers to extensive lists in the text. General features of human uniqueness refer to stone tool technology; complex stone tools; complex bone, antler, and ivory artifacts; technological change and regional diversification of tools; personal ornamentation; representational or naturalistic art; and economic and social organization. Morphological or anatomical definitions note terrestrial bipedalism, complex neocortex, chin-bearing faces, and two-part brow structure. Behavioral definitions refer to spoken language; mental symbols; symbolic behavior; abstract thinking, planning, or strategizing; behavioral, economic, and technological innovation; and resisting boredom.

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