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A God Adequate for Primate Culture

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Abstract

Philosophy and religion have preserved the uniqueness of humanity, but primate studies increasingly show that the criteria separating humans and nature, such as culture and learning, language and abstraction, genetics and behavior, and ethics and morality, are quickly eroding. Primatology supports John Haught's contention, in *God after Darwin: A Theology of Evolution,* that there is subjectivity in nature, so perhaps it is not unimaginable that God works in the lives of animals in ways analogous to God's influence in the lives of humans. As Haught claims, this means that God is far more complex and interesting than humans have every imagined. A panentheistic model of God's relationship to the world accommodates both the subjectivity of animals and the divine influence of God in the lives of non-human animals. When human experience is decentered from sole importance, panentheism allows diverse animal experiences to affect God's experience and influence in the world.

Introduction

[1] In *Ever since Darwin: Reflections in Natural History,* Stephen Jay Gould writes:

> Chimps and gorillas have long been the battleground for our search for uniqueness; for if we could establish an unambiguous distinction - of kind rather than of degree - between ourselves and our closest relatives, we might gain the justification long sought for our cosmic arrogance. The battle shifted long ago from a simple debate about evolution: educated people now accept the evolutionary continuity between humans and apes. . . . But we are so tied to our philosophical and religious heritage that we seek a criterion for strict division between our abilities and those of chimpanzees. . . . Many criteria have been tried, and one by one they have failed. The only honest alternative is to admit the strict continuity in kind between ourselves and chimpanzees. And what do we lose thereby? Only an antiquated concept of soul to gain a more humble, even exalting vision of our oneness with nature (50-51).

Since Gould crafted these words in the 1970s, science has continued to erode the criteria that separate humans and primates. Theology and philosophy, however, have managed to acknowledge continuity between humans and nature (most often in ecotheology, ecofeminism, and animal rights scholarship), but rarely have they seriously engaged the importance of primate studies for theology and metaphysics.

[2] This article takes up the theological challenge posed by Gould's statement. If theology turns its gaze toward chimpanzees, rather than nature as a whole, what new observations and questions emerge? This brief consideration of chimpanzee culture asks what model of God might best fit a worldview in which humans are not entirely unique in their capacities for language, ethics, and culture. My thesis is that a God adequate for primate culture must be coherent with a world known to house complex chimpanzee societies.

Chimpanzee Language, Culture, and "Morality"

[3] Gould's statement requires theology to face squarely the continuity between humans and chimpanzees. Chimpanzees routinely cross arbitrary lines that set them apart from us, and the genetic similarities between our species may account for the ease with which chimpanzees surprise us with "human-like" capacities.[1] In 1967, Vincent Sarich and Allan Wilson studied blood proteins and discovered that chimpanzee and human protein molecules are very similar (cited in Fouts: 54). In 1975, Mary-Claire King and A. C. Wilson compared proteins produced by humans and chimpanzees only to discover that the genetic differences between us is relatively small given significant, observable differences in morphology and behavior (cited in Gould: 53). In the early 1980s, Charles Sibley and Jon Ahlquist refined the genetic comparison of chimpanzees and humans. Sibley and Ahlquist measured a 98.4 percent similarity between human and chimpanzee DNA, which makes humans closer kin to chimpanzees than either gorillas or orangutans (cited in Fouts: 55). This 1.6 percent difference means that humans are nearly as genetically similar to chimpanzees as bonobos, and because bonobos are a second species of chimpanzee, Jared Diamond has proposed that humans are, in fact, a third species of chimpanzee (Fouts: 55). New genetic data have altered primate taxonomy so that humans, chimpanzees, gorillas, and orangutans are now grouped as "hominids," a term once reserved for humans and human ancestors alone (Fouts: 57). Without subscribing to genetic determinism, it is fair to say that proof of genetic similarity between chimpanzees and humans leads us to expect other similarities between the species.

[4] While language used to be a criterion for distinguishing the difference in kind between humans and chimpanzees, experiments since the 1960s show that chimpanzees have the ability to communicate using sign language. A recent report introduced news viewers to a chimpanzee in Japan, named Muzo, who shows remarkable and quick ability to sequence numbers on a computer. Language and number skills show levels of ability with abstract thought that previously were associated solely with humans.

[5] Washoe is one of a number of chimpanzees who participated in Allen and Beatrix Gardner's studies in primate language abilities. Early studies, which attempted to teach primates to vocalize language, failed because chimpanzee morphology differs in the larynx and tongue making it difficult to vocalize as humans do and because chimpanzees are quiet animals. Because language was equated with vocal speech, studies concluded that humans were unique in their capacity for language. The Gardners, however, realized something else interesting about chimpanzees: While they do communicate using pant-hoots, they are highly gestural in communicating with other chimpanzees. This observation led to controlled experiments in teaching American Sign Language to chimpanzees, with the result that chimpanzees not only demonstrated an ability to learn signs, but to understand spoken English as well (Fouts: 25-27).

[6] The highly energetic chimpanzee Washoe, who lived with the Gardners and who spent much of her life under the care of Roger Fouts, proved to be the star pupil. Washoe's early training in American Sign Language began in a setting where no English was spoken and where no other chimpanzees were living. She was neither rewarded nor punished for her ability to learn signs, but she learned hundreds of signs and is able to communicate in sentences. Moreover, her language and intelligence far exceed merely "aping" human language. For example, when

[1] Or, is it more that we surprise ourselves with "chimpanzee-like" human capacities?

Washoe's need for language exceeds her vocabulary, she is able to improvise signs and invent language (Fouts: 82-83). One sign that Washoe truly internalized sign language occurred when she was young and she was found to sign to herself. In fact, it was a philosopher of science who, in driving by Washoe's enclosure, discovered her sitting in a tree leafing through a magazine and signing to herself as she identified objects in photographs (Fouts: 71).

[7] Roger Fouts was particularly interested in learning whether chimpanzees were capable of cultural transmission of sign language to their offspring. Because Washoe was not successful in having her own offspring, Fouts arranged for Washoe to adopt an infant named Loulis. After a short adjustment period, Fouts' students observed Washoe signing "Come Baby" to Loulis who jumped in her arms. The humans limited signing in front of Loulis to be sure that Washoe was his primary source of language. On his eighth day with Washoe, Loulis made his first sign. Loulis continued to learn sign language as a self-directed learner who desired to communicate socially. Fouts' experiment was designed to examine whether gestural language in hominids provided such a social advantage that parents passed language on to their young (240-41).

[8] Deborah Fouts' research with Washoe, Loulis, and other chimpanzees added one more important observation about language in primates. Some skeptics argued that the chimpanzees signed only when humans were present, but Deborah Fouts demonstrated, by using videotapes, that chimpanzees communicated to each other through American Sign Language. In the first fifteen hours of tapes, the chimpanzees showed more than two hundred incidents of chimpanzee-to-chimpanzee signing. One of the most important observations in this study showed that Loulis not only signed to Washoe, but that he used sign language to communicate with other chimpanzees. In fact, Loulis signed three times more often to his best friend Dar than he signed to Washoe (Fouts: 302-3).

[9] Language skills in chimpanzees are impressive, but perhaps the most stunning article about chimpanzees appears in *Nature* under the title, "Cultures in Chimpanzees." A group of scientists, who for decades have observed the chimpanzees of Africa in seven regions of the continent, pooled their data to find that differences in behavioral repertoires among the groups is so apparent that they suggest cultural variation. Here "culture" is defined as "any behaviors common to a population that are learned from fellow group members rather than inherited through genes" (Vogel: 2070). Examples of the diverse cultural behaviors include distinctive forms of tool use in feeding and different styles of vocalization in "pant-hoots." The diverse behaviors are best explained by learning within the groups, which shatters the criterion that humans are separated from chimpanzees by transmission of culture.

[10] One of the strongest examples of cultural distinctions between chimpanzee groups in Africa concerns a method of eating nuts. Two groups of chimpanzees appear to use rocks to crack nuts. One rock is used as a hammer and another rock is used as an anvil. The nut is placed on the anvil and cracked open with the stone hammer. This behavior is customary, which means that it "occurs in all or most able-bodied members of at least one age-sex class" (Whiten *et al:* 682). The particular importance of this example is that the behavioral custom of using hammer and anvil to crack nuts seems to have spread by cultural transmission from one culture of chimpanzees to another. In an experiment, researchers left rocks, familiar nuts, and unfamiliar nuts in a clearing. An adult female named Yo was the only chimpanzee who approached the nuts and used the hammer-anvil technique to crack the nuts. While adults ignored Yo, juveniles watched her carefully and copied her technique. The researchers speculate that Yo, who joined the group when she was an adolescent, must have learned this behavior in the Mount Nimba

region where chimpanzees are known to employ the hammer-anvil technique. The researchers suggest that Yo was able to pass a behavior to young chimpanzees in much the same way that humans pass along cultural behaviors (Vogel: 2072).

[11] While anthropologists hold that culture is possible only among humans and is dependent upon linguistic mediation, biological sciences have expanded the definition of culture. Biologists aver that behavior is transmitted from one generation to another by two means, genetics and social learning, both of which may affect evolutionary change. As the authors who collaborated in the *Nature* article explain,

> From this perspective, a cultural behaviour is one that is transmitted repeatedly through social or observational learning to become a population-level characteristic. By this definition, cultural differences (often known as "traditions" in ethology) are well-established phenomena in the animal kingdom and are maintained through a variety of social transmission mechanisms (Whiten *et al:* 682).

The comparison of observational data from 151 years of chimpanzee watching in seven long-term studies identified thirty-nine behavior patterns that are customary or habitual in some chimpanzee groups, but absent in others.

[12] This study of the seven African chimpanzee groups is especially significant if taken together with observations of chimpanzees in captivity, like those in Roger Fouts' work. Chimpanzees appear to learn through imitation, other forms of social learning, and individual learning (Whiten *et al:* 685). However, as highly relational animals, chimpanzees exhibit different behaviors in natural habitats and captive contexts. When among humans, chimpanzees are socialized to identify with humans and may use language and art as part of their behavioral repertoire. When raised in natural habitats, chimpanzees are socialized to the cultural customs and habits of their groups and have little need for human-like language.

[13] Frans de Waal and other scientists challenge the criterion that ethics or morality separates humans and animals. De Waal's book, *Good Natured: The Origins of Right and Wrong in Humans and Other Animals*, investigates the evolution of morality and collects anecdotes from observations of animal behavior that suggest sophisticated ability to empathize with others, make behavioral choices, and teach/learn moral behavior.

[14] De Waal's argument depends on the premise that there is continuity between humans and animals, particularly our nearest evolutionary kin among primates. Because primates may more closely resemble human ancestors than humans, primate behavior and social organization may give clues about the evolution of morality. De Waal's task, as he describes it, is to investigate whether "some of the building blocks of morality are recognizable in other animals" (3). De Waal's search for the building blocks is informed by Petr Kropotkin's communal principle that cooperation is more important than competition in facing a common enemy, Robert Triver's theory of reciprocal altruism, which is a costly and risky cooperative behavior in which the return of a favor may be long delayed, and Richard Alexander's view that conflict within a group is a critical condition for the evolution of morality (22, 24, 30). To these principles, de Waal adds community concern, which means that "each and every individual has a stake in the quality of the social environment on which its survival depends" (31).

[15] The success of de Waal's investigation depends on finding aspects of morality in animal behavior. As one might expect, sympathy or empathy in human behavior enables us to identify or act on another's pain or misfortune, so de Waal's investigation seeks functional equivalents of sympathy in animals (41). Sympathy-like behavior is observed in chimpanzees. For example, wild chimpanzees have been observed to call out and make charging displays upon finding the corpse of a male who had broken his neck in a fall. While crying, displaying, and hurling rocks in all directions, the chimpanzees were embracing, mounting, touching, and patting one another with big, nervous grins on their faces. Later, the chimpanzees stared at the body, one juvenile female for more than an hour (56).

[16] Similarly, chimpanzees in captivity respond to injury with something like sympathy. Lucy, who was socialized as part of a human family, responded to her human "mother's" illness.

> If Jane is sick, Lucy notices it immediately. For example, on every occasion when Jane was ill and vomited, Lucy became very disturbed, running into the bathroom, standing by Jane, comforting her by kissing her and putting her arm around her as she vomited. When Jane was sick in bed Lucy would exhibit tender protectiveness toward her, bringing her food, sharing her own food, or sitting on the edge of the bed attempting to comfort by stroking and grooming her (Temerlin: 165, cited in de Waal: 57).

[17] Prosimians, too, appear to respond to injury with an analog of human sympathy. De Waal recounts an incident at the Duke University Primate Center involving ring-tailed lemurs. A grandmother lemur witnessed her three-month-old granddaughter climbing an electric fence, where she received a shock to her temple and fell to the ground in convulsions. The grandmother carried the granddaughter for ten minutes and then placed her in a quiet spot. Three other infants began taking turns at grooming the harmed infant, which is unusual because infants rarely groom others. The injured infant attempted to climb on her mother's back, but the mother violently rejected the infant. The grandmother instantly attacked the mother, with the result that the mother allowed her daughter to climb on her back. The interpretation that observers gave to the incident first recognized that lemurs, such as the grandmother and the infants, understand when another is in trouble. Second was the interpretation that lemurs transmit behavioral expectations through teaching and learning. De Waal comments,

> The grandmother's action against her daughter was all the more remarkable because older lemurs almost never meddle in conflicts between daughters and grandchildren. What intrigues me most is that she seemed to teach her daughter how she *ought* to behave; precisely the kind of social pressure viewed in moral terms if seen in humans (60).

[18] De Waal warns against romanticizing primate behavior by reporting observations when empathy was absent in incidents when a sympathetic response might be expected (47).[2] Less than admirable human traits also have functional analogues in animals, which are just as important as building blocks in the evolution of morality. Chimpanzees, for example, show clear instances of deception. One captive male chimpanzee "wished" to intimidate a challenger, but he kept grinning in a signal of fear. With his back turned to his challenger, the male used his fingers

[2] Failure to exhibit expected empathy is not that unusual among humans either, is it?

three times to push his lips over his teeth. After correcting his facial appearance, which betrayed his fear, the male turned to bluff the challenger (76).

[19] Roger Fouts reports an incident of deception with Washoe. Washoe managed to lure Fouts, then a graduate student, away from her trailer steps by feigning intense interest in something under rocks. Fouts' curiosity drew him to the rock garden to see what held Washoe's attention. Washoe continued to look at the rocks, and Fouts sat in the rock garden to write notes. Washoe then climbed her tree and waited for Fouts to become absorbed by his writing, at which point, Washoe moved so quickly toward the trailer that Fouts thought that she had fallen. Washoe's plan ended with her successfully acquiring a soda pop from a mistakenly unlocked cabinet. Quickly, she returned to her tree to drink her soda (45-46). Fouts interprets the incident in this way:

> This whole episode amazed me. Washoe must have noticed that the cupboard was unlocked during breakfast, suppressed her natural impulse to raid it when my back was turned, and instead devised this plan for distracting me long enough to gain access to the trailer by herself *and* give herself the opportunity to drink the soda. This was a level of planning and deception beyond anything I thought her capable of (46).

Washoe's deception required social intelligence to achieve manipulation of her human. She delayed personal gratification and devised an effective plan to fool her human so that she could have what she wanted. Her actions showed intention and perhaps anticipated human responses to particular actions.

[20] De Waal is reluctant to call chimpanzees "moral beings," but he is equally reticent to call chimpanzee behavior merely instinctual. De Waal has identified aspects of human behavior relevant to morality and concludes that constituent parts of moral human behavior are recognizable in animals (210).[3]

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[3] The following chart, quoted from de Waal (211) indicates what are the constituents of human moral behavior:

> It is hard to imagine human morality without the following tendencies and capacities found also in other species.
>
> **Sympathy-Related Traits**
> Attachment, succorance, and emotional contagion.
> Learned adjustment to and special treatment of the disabled and injured.
> Ability to trade places mentally with others: cognitive empathy.*
>
> **Norm-Related Characteristics**
> Prescriptive social rules.
> Internalization of rules and anticipation of punishment.*
>
> **Reciprocity**
> A concept of giving, trading, and revenge.
> Moralistic aggression against violators of reciprocity rules.
>
> **Getting Along**
> Peacemaking and avoidance of conflict.
> Community concern and maintenance of good relationships.*
> Accommodation of conflicting interests through negotiation.

Theology, Ecology, and Evolution

[21] As a theologian, fully aware that there are criticisms of chimpanzee research, such as anthropomorpism and misinterpretation of imitative behavior, and that more evidence is needed to advance conclusions about cognitive and behavioral abilities of primates, I am challenged to consider that we have underestimated our sister species. Not only do chimpanzees demonstrate ability with American Sign Language, but a recent report from Japan claims that a chimpanzee named Muzo quickly and accurately sequences numbers by touching a computer screen. Cumulative observational data from Africa provides evidence of transmission of culture. Cognitive ethology concludes that aspects of behavior foundational to human morality are widely evident in animals, including chimpanzees. While I could concern myself with the *hubris* in our devotion to human superiority, my real concern is that in underestimating chimpanzees, theology has underestimated God. What concept of God is both comprehensive and coherent enough to recognize complex nonhuman beings such as chimpanzees?

[22] If theology let go its historical, philosophical, and theological commitment to the principle that humans are distinct from animals, would it be a theological disaster to concede remarkable similarities with higher primates? If theologians were to concede that humans and primates (and other animals) have much in common, would the concession suggest that certain models of God are more comprehensive than others in their understanding of the relationship of God and nature, inclusive of humans?

[23] While ecological theology is often too broad in scope to focus the theologian's gaze on a particular nonhuman species, Sallie McFague's assessment of models of the God-world relationship helps narrow the range of models to those most inclusive of nature. Certain models of the God-world relationship are inadequate because they are not comprehensive enough to accommodate an ecological worldview. Dialogical and monarchical models of God focus on the divine relationship with humans and encourage indifference toward nature (138-39).[4] The deistic model of God separates God from the world and encourages viewing nature in mechanistic terms (138).[5] McFague is more optimistic about the agential model, which has as its metaphor "the human self realizing its purposes through its body" (139).[6] In the agential model, if the world is God's body, God works out divine purposes in relation to cosmic processes. McFague's criticisms of the agential model include the anthropomorphism of the metaphor in its historical context.[7] The organic model of the God-world relationship identifies the world as God's body,

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*It is particularly in these areas - empathy, internalization of rules and sense of justice, and community concern - that humans seem to have gone considerably further than most other animals.

[4] McFague defines the dialogical model in terms of the metaphor of personal relationship, which is an I-Thou relationship between God and the human individual. The monarchical model relies on a personal and political metaphor, God as the powerful King who rules over human subjects (138).

[5] The deistic model is based on the metaphor that God is clockmaker and the world is the clock. This model entails a mechanistic view of nature, which (McFague claims) "encourages an irresponsible, idolatrous attitude in the scientific community, allowing it to claim for itself sole rights to interpret and to dispose of the world" (137-38).

[6] McFague is more optimistic than I am about the agential model. I lack confidence that in addressing mind-body dualism, the agential model necessarily overcomes the dualism between humans and nature.

[7] Research suggesting that nonhuman animals have intentions may mean that the agential model could be developed in forms that are not anthropomorphic.

which highly regards nature as a whole, but McFague claims that the organic model is pantheistic, collapsing God and the world and making the world divine (140).

[24] McFague finds a model blending the agential and organic models to be most adequate as a representation of God's relationship with a world not limited to humans. I appreciate that the agential-organic model embraced by McFague is panentheistic - particularly because the substance of her panentheism is developed as one protest against a mechanistic worldview that separates God from nature (in other words, against a classical supernaturalism that separates God from a mechanistic world). On the one hand, panentheism entails the divine immanence in nature missing from the monarchical and dialogical models. The presence of God in nature is captured in the ecological metaphor of the world as God's body. On the other hand, McFague's panentheism preserves divine transcendence because God is not reducible to the world and its processes. If God's immanence resides in the metaphor of the world as God's body, God's transcendence is imaged not in the dualistic cliché that God must be mind and body, but in the almost unexpected image of God as spirit and body. Picturing God's transcendence in terms of spirit redraws biblical images of the breath of God associated with creation and dependence of life (143-44). McFague describes this panentheistic relationship of God to the world in this way:

> The principle reason, then, for preferring spirit to alternative possibilities is that it underscores the connection between God and the world as not primarily the Mind that orders, controls, and directs the universe, but as the Breath that is the source of its life and vitality. The connection is one of *relationship* at the deepest possible level, the level of life, rather than *control* at the level of ordering and directing nature (145).

The metaphors that give images to McFague's panentheism figure divine creative action not as control, but as empowerment (148). McFague writes:

> I owe my existence at its most fundamental level - the gift of my next breath - to God. God is my creator and recreator, the One who gives and renews my life, moment by moment, at its most basic, physical level. And so does everything else in creation also live, moment by moment, by the breath of God, says our model (144).

What grasps me in McFague's panentheism is that God's presence, creativity, and empowerment pervade all of life.

[25] McFague's ecological theology moves us closer to a theology adequate for primate culture. The creative, empowering presence of God lives in all life, including (I presume) chimpanzee life. However, as theology preserves God's embodiment in the world, chimpanzee culture requires that we move from the world to more specific concern for the particular primates.

[26] If animals share with humans capacities resembling human consciousness and abstraction, language and learning, ethics and morality, animal subjectivity and interiority are not far-fetched concepts. Primatology supports John Haught's contention, in *God after Darwin: A Theology of Evolution*, that there is subjectivity in nature, so perhaps it is not unimaginable that God works in the lives of animals in ways analogous to divine influences in the lives of humans. As Haught claims, this means that God is far more complex and interesting than humans have ever imagined. Does God orchestrate the behavior of simple creatures according to a divine plan? Or, is it far more awe-inspiring to imagine a God who with openness, compassion, and suffering

relates to all creatures and connects intimately with their experiences and futures (as Haught proposes)?

[27] Haught's theology of evolution draws its view of God from the Christ-event, which for Haught means that God is kenotic love and the power of the future (110). In dialogue with evolutionary science, Haught proposes a concept of God coherent with what science observes as a directionless and random process of natural selection.

[28] God, in a theology of evolution, must permit "genuine independence" in creation. Haught's rationale for such a God rests in divine kenotic love.

> Love by its very nature cannot compel, and so any God whose very essence is love should not be expected to overwhelm the world either with a coercively directive "power" or an annihilating "presence." Indeed, an infinite love must in some sense "absent" or "restrain itself," precisely in order to give the world the "space" in which to become something distinct from the creative love that constitutes it as "other." We should anticipate, therefore, that any universe rooted in an unbounded love would have some features that appear to us as random or undirected (112).

[29] Haught's God is not simply a bystander in the course of evolution because God is the world's "inexhaustible 'futurity'" or "the infinitely generous ground of new possibilities for world-becoming" (119). As the power of the future, God regards highly the world's freedom by "continuous arrival in the present" with a range of potentialities to lay before the universe. As God envisages the futures relevant to the cosmos, God is neither dismissive nor forgetful of the past because "God's compassionate embrace enfolds redemptively and preserves everlastingly each moment of the cosmic evolutionary story" (119).

[30] Haught's view of God invites a closer look at the autonomous world to which God relates. Haught's theology of evolution requires a world where subjectivity is not limited to humans. Evolutionary materialism cannot adequately account for the emergence of inwardness or subjectivity out of inert, mindless matter. Influenced by Hans Jonas, Teilhard de Chardin, and Alfred North Whitehead, Haught is persuaded that the natural world possesses an inwardness analogous to human subjectivity (166, 170). Evolution and God may coexist only if nature possesses both the subjectivity necessary to respond to novel possibilities presented by God, as the power of futurity, and the genuine freedom for evolutionary self-transcendence in the presence of divine kenotic love (167).

God, Chimpanzees, and Persons

[31] The project of Haught's theology of evolution is as encompassing in scope as McFague's ecological theology. After all, any theology involved with evolution and ecology must be concerned with the grand scheme of nature. However, both theologians allude to the diversity and particularity within nature. My interest is in how panentheism describes the relationship of God with particular creatures (chimpanzees, for example) at the same time that God engages the cosmos.

[32] Process philosophy and ecofeminism influence my view of nature and God, and there are two features of Whitehead's cosmology that I would like to emphasize as important for re-imagining the relationship of humans and animals. The first is that there is continuity between humans and nature. The common thread connecting humans and nature (and God, in fact) is

experience. All who exist in nature are best understood in terms of the events and relations that contribute to their existence, but beings are self-creating rather than determined by their relationships. In Whitehead's view, humans and nature differ in degree rather than in kind. Whitehead did not minimize the significance of the difference between humans and nature, but he did emphasize that no rigid boundaries distinguish humans and nature.

[33] The second point, which builds on the continuity of humans and nature, is that Whitehead extends the term "person" to include most animals. Humans, animals, and vegetables are societies of events or experiences, in Whitehead's view. Living bodies possess an internal organizer that coordinates the events and relationships that make up individuals. A "person" is one whose experiences are so organized that they form a coherent and recognizable being. Humans and vertebrates in particular are described by Whitehead's notion of person. For example, the personhood of animals goes beyond continuity to establish the kinship of humans and chimpanzees.

[34] The capacities for freedom and creativity are more complex for "persons" than for the rest of nature. "Persons" have more flexibility because the range of potential offered by God, as the power of futurity, is far greater in proportion to their consciousness, experience, and sociality. God contributes to the formation of "persons" by offering visions of their futures, but God does not determine the futures of self-creating "persons." Aside from the language of personhood, this depiction of God's immanence and influence reflects what McFague and Haught understand about God, but there is one more emphasis that needs to be raised.

[35] In Whitehead's panentheism, there is continuity between nature (inclusive of humans) and God. Just as God contributes to the formation of "persons" and all of nature, each creature contributes to the being of God by adding new experiences to the body of God. The mutual formation of God and each "person" is a special instance of the doctrine of internal relations (Whitehead's name for the principle that each individual is constituted by its relationships). Both God and the "person" are similarly formed by the relationships that make up their experience. This means that God's being is, in part, a product of the decisions and actions of individuals, including "persons."[8]

[36] In my brief descriptions of Whitehead's metaphysics and Haught's and McFague's theologies, what I want to create is a theological climate responsive to the advanced cognitive and social lives of primates, exemplified in chimpanzees. The concept of God that I have tried to defend makes room for creatures other than humans to be "persons" within a cosmos where there are no monopolies on subjectivity. Panentheism imagines a God who works within the emergence of species and individuals, and humans should not be surprised at versions of language, abstraction, culture, or "moral" order when God likewise moves in chimpanzees to realize potential. The personhood of chimpanzees suggests their intrinsic value apart from their usefulness in understanding human medicine, society, and cognition. Further, the rich social and individual lives of chimpanzees are part of what makes God "God." When human experience is decentered from theology, panentheism provides a model for seeing far more about God and chimpanzees - and, ironically, far more about ourselves.

[8] These last four paragraphs are more fully developed in Howell (especially, 28 and 122).

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