

Embodied Animal Mind and Hand-signing Chimpanzees

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Chimpanzee language studies have generated much heated controversy, as Roger Fouts can attest from first-hand experience. Perhaps this is because language is usually considered to be what truly distinguishes humans from apes. If chimps can indeed be taught the rudiments of language, then the difference between them and us is not as great as we might have thought. It is a matter of degree rather than kind, a continuity, and our species is not so special after all. The advantage of this continuity thesis, as Fouts has emphasized, is that it conforms to the general tenets of evolutionary theory, and fits well with the evidence from paleontology and genetics that suggests that apes and humans are close cousins. It also has profound implications for the way we treat our primate relatives.

Opposed to continuity theories are those that posit a discontinuity between humans and apes, perhaps due to a “language instinct” (e.g., Pinker) or a specialized cognitive module. The advantage of this view is that it accords with prima facie observations that we humans are unique in our cognitive abilities, our complex cultures, our desire for meaning, our fondness for stories and rituals, and our tendency to ponder our ultimate fate. The problem with the discontinuity view is that it lacks an evolutionary explanation of how a new instinct or module arises, or exactly what these might be in terms of human biology. Perhaps more importantly and as Fouts has pointed out, it tends to support the view that humans are special, and consequently reinforces, particularly in Western cultures, our domination over other species.

Parallel to the continuity-discontinuity debate is a dispute over how to interpret complex animal behavior. There are those who insist on being hard-nosed and, in the name of being scientific, avoid all mentalistic terms. But many people in both the sciences and humanities find such paradigms too restrictive to describe and understand complex animal behavior. They contend that since there is an evolutionary continuity between apes and humans, apes must be cognitive creatures in much the same way that humans are. Thus we can use terms from human folk psychology when talking about other animals. For some, this includes talking about animal consciousness. Fouts, I believe, is on this side of this debate.

Unfortunately, mentalistic and folk psychology views have their own problems. One is that they usually rely on a Cartesian and Lockean view of mind, something Fouts wisely wants to avoid. Mind is something non-physical “inside” the animal that forms representations of the outside world. Fouts contrasts a Cartesian view with Darwinian continuity; but affirming evolutionary continuity does not necessarily dispel Descartes’ delusion, which is mind-body dualism and a representational psychology. Applying a mentalistic folk psychology to animals risks foisting a quasi-Cartesian mind onto our animal relatives.

The second widely acknowledged problem with a mentalistic view of animals is anthropomorphism. This is where the debate can become particularly acrimonious. Is

anthropomorphism scientifically legitimate? Can it be avoided? Is there good and bad anthropomorphism? Primatologist Sue Savage-Rumbaugh (1999) quite reasonably believes that we need to be anthropomorphic in order to find out whether apes can develop primitive language skills (168).¹ They will only learn linguistic communication if we believe they can. Imagine a human child growing up amongst adults who treated all of its linguistic behavior with skepticism. Anthropomorphism is also important for practical ethics: the more we see apes as like us, the more likely we will support efforts to improve their conditions in captivity and protect them from extinction in the wild. This is the important practical thrust of Fouts work.

Fouts is right to be in the Darwinian continuity camp. I think it likely that researchers will eventually conclude that there is no special language instinct or even a distinctive cognitive module that separates human cognition from ape cognition. Still, the differences are so vast, at least on the surface, that they call for an explanation. This is largely lacking in continuity theories. With Fouts and others, I also believe that we need to understand animal consciousness for any adequate understanding of animal life and cognition, and for animal ethics. However, if we want to get to the bottom of ape abilities (as well as human abilities), some anti-anthropomorphic skepticism is in order. Eager anthropomorphism not only blurs the differences between humans and apes; it can obscure the genuine continuities. It also presents a potential problem for practical ethics, for if anthropomorphic interpretations turn out to be unsustainable in the long run, this would weaken arguments for the humane treatment of apes that are based on such interpretations. Besides, as Fouts implies in his book (372), basing an ethical stance toward apes on human-like language skills might leave other not-so-human-like animals at a disadvantage. In short, even though I support the continuity and consciousness sides of these debates, I see some problems.

Primate cognition is usually assessed using criteria based on human, linguistically mediated ways of knowing. This partly derives, I would argue, from seeing human experience as primarily an affair of knowing and thinking. "I think, therefore I am." We then ask if other animals can think, use language, or are rational. I also suspect that it derives from a denial and an ignorance of our own animality. Biologically, yes we know that we are animals, but we are not accustomed to thinking of ourselves as animals from the inside, so to speak. We are persons, selves, thinking beings, souls perhaps. We then wonder if there is a person-like self or thinking being behind the eyes of a chimp or a dog. We look for the non-animal in the animal. This results in a tendency to unconsciously project a Cartesian dualism into animal experience. The result is, paradoxically, an impoverished view of animal experience rather than a richer one. Animal awareness may in some ways be richer than our own just because animals do not filter their experience through a layer of human-like thought and rationality.

The alternative is first to develop a sufficiently deep and nuanced understanding of what it is to be an animal, then include more human-like cognitive abilities if they are required to explain animal behavior. This approach opens up interpretations of ape-human communication that are at least as interesting as ones based on linguistic models. It also would put the humane treatment of animals on a more solid footing. Our compassion for animals would be based not on

a conception of their supposed “rationality,” but on realizing that they are feeling, sensitive individuals capable of a high degree of perceptual acuity and experiential complexity.

There are at least two promising ways of moving toward a rich view of animality. First, we can see animal experience as immediate experience.² Surely, if there is any part of human experience that is similar to other animals it is our pre-linguistic, pre-reflective immediate experience. Insight into the qualitative immediacy of human experience should, then, be able to provide some insight into animal experience. This would be a fruitful or good anthropomorphism. Dewey’s discussion of qualitative immediacy is a good place to start. A second source is descriptions of intense athletic activity, where the self is forgotten in complete absorption in the game, the ball, or the opponent. A third source is Zen meditation, which opens the practitioner to aspects of experience that are prior to language and prior to a sense of an individuated self.

Buddhism teaches that there is no substantial mind or self. This puts it in stark contrast to Cartesianism. In Zen meditation the reflective activity of the self ceases. When reflective activity ceases, the self ceases to be a self. At that point there is no difference between, say, the person hearing a sound and the sound that is heard. Dogen says that, “Since there is no mind in me, when I hear the sound of raindrops from the cave, the raindrop is myself” (Laycock, 396). This, I would argue, characterizes animal mind. The animal is fully engaged in the world, so that the world *is* the animal’s mind. This full engagement also characterizes Zen action. T. P. Kasulis likens Zen action to the pre-conceptual responsiveness of a major league batter. The batter is absorbed in directed concentration, but without self-consciousness. The ball player focuses totally on the ball, and “merely waits, poised to respond to the virtually infinite number of paths the ball might follow”(58). The response to the ball as it arrives is immediate and spontaneous with no thought of self. I suggest that Zen action is animal action, and not just occasionally, but all the time. Animal action-mind always throws itself into responsive relationships with those things it must secure or avoid, and with other individuals in its social world. The animal exerts focused effort with no distance between mind and world, or between mind and other individuals.

The second resource for developing a rich view of animality is recent work in embodied mind and the “lived body.” The animal body is a lived body. The lived body is not an object of awareness; it is the body that is “doing the awaring”—the body as subject. The subject body is not the body we have, says Shiganori Nagatomo, it is the body we *are* (6). This notion of the body completely undercuts the Cartesian dualism of body and mind. The body, not the mind, is the “epistemic center of consciousness” (Nagatomo, 5). Parts of the animal body—an ape’s hands for instance—can become objects to its consciousness, but the animal body as a whole cannot be an object of its own awareness. Regardless of how big a part of the body is taken as an object, there is always part of the body that does not enter into the body image. And there is the standpoint that is aware of the body-part-as-object. This standpoint is the subject body. It is the felt unity *from which* things are perceived. The animal does not, then, make the distinction between a total self-as-object and environment. It is not a self-as-object to itself.

Sean Gallagher distinguishes between body image and body schema. The *body image* is the body as an object of awareness. The *body schema* is a “system of sensory-motor capacities” that function without becoming an object of awareness (24). The body schema is not static; it is a dynamic capacity for movement, and movement is fundamental to animal life. Maxine Sheets-Johnstone refers to a “primal animation” that is the ground of animal experience and sense-making (xxiv, 261). If animals can be said to think, they think in terms of movement.

Movement is anticipatory. As the animal moves toward the completion of an act, it anticipates events as they emerge. Movement can only be coordinated if anticipations are constantly being integrated into ongoing activity. To catch a ball, I anticipate its trajectory. To catch a rabbit, a coyote must anticipate its movement and make continual adjustments. For a chimpanzee to interact with its human caretakers, it must try to anticipate human behavior. We approach a household appliance with an organized set of expectations and are prepared to use the appliance before we reach it. Likewise when a chimpanzee approaches food or a social situation, it is prepared to respond to probable conditions. It might pick up a useful-looking stone on the way to a nut-cracking site, or solicit the company of a friend when expecting conflict. When the animal encounters something unexpected and its activity is interrupted, there is an “impulsion” to complete the interrupted act. Habits probe the situation as kinesthetic and perceptual anticipations. The live creature, says Dewey, anticipates its future as “possibilities that are felt as possessions of what is now and here” (24). There may be some rather hesitant moves as the organism “tries out” responses, anticipating their outcomes. There is a “welcoming and rejecting” of felt possibilities (DS 24). Eventually a definite course of activity is recovered. This process constitutes embodied animal thinking. Anticipations are not “mental,” they are bodily and behavioral. They are felt possibilities of movement in the subject body. The animate creature does not think *of* its movements; it thinks *with* its movements (Sheets-Johnstone, 265). Its thinking is actually a form of incipient movement of the body schema.

The ape subject-body is a social body. Chimpanzee society is an inter-corporeal affair, or as Barbara King (2005) describes it, a social dance.³ It is a scene of bodies in relationships of movement and anticipation. We need to resist the strong temptation of a Cartesian psychology when we are considering primate social life. In the immediacy of animal social experience, there is no separation between subject and object, or consciousness and content; there is no separate animal self or mind that interacts with other separate selves or minds. Recall Dogen saying that, since there is no mind in me, when I hear the raindrop, the raindrop is myself. When the animal perceives and responds to another individual, the movement of that other individual *is* the perceiving animal’s mind. Just as the professional ballplayer is totally absorbed in the oncoming ball, the animal is totally absorbed in its social relationships and focused on the movements of others.

Returning to the dance metaphor, dance partners are sensitively attuned to each other’s movements. One dance instructor quoted by King describes how an attuned dancer is sensitive to subtle changes in the partner’s movements such as “a tilt of the head, a change in the level of the hand hold, a general weight shift” (1). King argues that this is the kind of sensitivity that apes

have to the movements of their groupmates. There is a “mutual attunement” which she and Stuart Shankar call “co-regulation” (606). In this mutual attunement, perception and response are simultaneous. As one animal adjusts to the other’s movements, the other is adjusting to the movements of the first. The movement of the two animals is a single dynamic system of mutual adjustment. It is important to note that when two humans are dancing together, they do not have to understand what is going on in the partner’s mind. To do so would result in awkwardness and a lack of responsiveness. If the dancers are completely absorbed in the dance without self-consciousness, then there is nothing going on “in” their minds except the actual dance itself. This mutual absorption in immediate bodily experience forms the context of ape gestures.

A gesture, in Mead’s terms, is any movement of one animal that is responded to by another. A conversation of gestures is the mutual adjustment of two animals moving in response to each other—King’s social dance. A conversation of gestures gives rise to what we could call “gestural meaning” as distinct from symbolic meaning. The gesture of one animal “means” the outcome of the social act *to the other*. As Mead points out (MSS 75+, 145), the gesturing animal is not conscious of this meaning. That is, it does not respond to its own gestures from the standpoint of the other animal. This is because it is completely involved in responding to the movements of the other rather than its own movements. There is no space for an interceding self to reflect on its own meaning. Thus the gesture is not, in Mead’s terms, symbolic.⁴ The gesture is not picked out as a separate social object. Rather, it is part of the felt capacity of the body schema or subject-body.

Even though a gesture is not symbolic in Mead’s sense, it can still be intentionally directed toward another with the expectation of the other’s response, as a dancer might direct her movements toward a partner. For instance, chimpanzee gestures to initiate grooming or playing are clearly directed toward others and are under intentional control. Apes also learn that another ape must be facing in its direction if its gesture is to have the desired effect. But directing gestures to another who is facing toward the gesturing individual does not *require* an ape to understand others as experiencing beings; these gestures are more like the movements of dance partners who know from experience that they must be facing each other for the dance to work. In Mead’s view, being able to understand others as being centers of conscious experience is crucial to symbolic language.

Like other ape gestures, hand-signing is a social dance of immediate experience and mutual attunement. The hands are a channel of intentional movement through which the animal acts in order to initiate a movement in its communication partner. The ape is immersed completely and selflessly in the relationship, sensitive to subtle movements of the other in a dynamic system of mutual adjustment. As it signs, it has expectations of the movements of the other that it integrates into its own ongoing activity. In complex situations, an ape might “think” by moving its hands overtly or covertly as it organizes its anticipations in response to its situation.⁵ This does not require the gestures to be symbols in Mead’s sense, though they are symbols for their human caretakers.

There is no doubt that some ape behavior, especially in individuals raised in close human contact, suggests the ability to take the standpoint of the other. Unfortunately, this is difficult to establish one way or the other. One clear indicator would be what Michael Tomasello has called “declarative pointing,” which appears in early human childhood. This is pointing simply to show something to another person and have that person share a perspective. Most, and perhaps all, ape pointing is “imperative pointing.” Apes learn that pointing gestures will cause humans to get them what they want. This does not require that apes understand others as experiencing beings like themselves. To have this understanding, they would have to become objects to themselves. What exactly would that object be? Not the object-body, but the very subject that experiences. That is, apes would have to objectify their own subjectivity so that they can objectify the subjectivity of others.⁶

If we cannot know for sure that apes cannot take the standpoint of the other, we could, of course, assume that they can and that their communication is symbolic. The problem is, this would prevent us from asking how they might be communicating using hand signs without this ability. This could be a very important question. If, in lacking clear evidence, we take the skeptical position, we can ask what it is about human animality that is different from yet continuous with primate animality that gives us this ability, and consequently enables us to use language easily and spontaneously. Finally, we should remember that just because other primates cannot take the standpoint of the other—a trick that gets humans into all sorts of difficulties involving self-objectification—does not mean they are not worthy of our profound respect as conscious and highly sensitive beings with an extraordinary degree of animal intelligence.

NOTES

1. Savage-Rumbaugh complains that her critics have a double standard when it comes to interpreting ape language research. When reporting behaviors that are similar in children and apes, researchers are expected to assume linguistic abilities in children but assume a lack of linguistic abilities in apes.

2. By the term “immediate experience” I have in mind Dewey’s notion of immediacy, especially as discussed in Chapters 3 and 8 or *Experience and Nature*. “Immediate” does not mean non-temporal. Temporality can be experience immediately as a qualitative sense of what has happened and what is expected to happen. Anticipation, discussed in the paragraphs following, is part of immediately experienced temporality.

3. See also Sheets-Johnstone, 483-526.

4. See MSS Chapters 10 and 11 for Mead’s discussion of the difference between meaning and the consciousness of meaning. Symbolic communication is found only in the latter. (In MSS, Mead uses terms like “mind” and “consciousness” in a much more restricted way that I am using them in the present paper.)

Like Mead, primatologist and developmental psychologist Michael Tomasello claims that one chimp gesturing to another would not comprehend that same gesture directed towards itself by another chimp as indicating the same intention. He says that their gestures are therefore not

symbolic (282). “[T]hey would not understand their own gestures as reciprocal communicative symbols, but rather as acts that produce certain predictable reactions in others, and they would understand the gestures of others as simple indications of their impending behavior.” Tomasello thinks that, “The reason that chimpanzees’ intentional gestures are not symbolic...is that chimpanzees do not understand the behavior of others intentionally.... [T]hey do not understand that other chimpanzees may have intentional relations to outside entities”(p.282). He thinks that chimp gestures that are not understood reciprocally are best called “signals,” not “symbols.” Signals are spurs to action of another individual, not intentional devices that could be adopted by the self when needed.

5. A chimpanzee might also move its hands in its sleep, as Fouts has reported. This is likely similar to cats and dogs moving in their sleep, apparently dreaming. But this does not mean that chimps are symbolically talking to themselves in their sleep.

6. Those who assert that apes can take the standpoint of the other (or in contemporary terms, that apes have a “theory of mind”) rarely if ever consider that the animal would have to objectify its own subjectivity, and what a tricky business that might be. What might that mean for the animal’s own experience? Would they experience shame and embarrassment? If this realization is robust, it might dawn on them that other ape-selves die, and thus their own self can come to an end. Being able to objectify one’s own subjectivity is a very complex and mixed blessing.

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