

*Bloomsbury's Comparative Psychology:
Bertrand Russell, Julian Huxley, J. B. S. Haldane,
Virginia Woolf*

What is it like to be a snail, a dog, or a bee?¹ What is it like to see the world through their eyes, smell it through their noses, or sense it through their feelers? For many scientists and writers in the modernist period, such questions defined the study of animal subjectivity. To understand animals as subjects, they believed, one had to enter their *perspectives*. In Germany, the Expressionist painter Franz Marc asked, “How does a horse see the world?” A few years later, the biologist Jakob von Uexküll asked what constituted the *Umwelt*, or world, of a tick.² In Prague, Kafka was writing stories like “Investigations of a Dog” and “A Report to an Academy” voiced by animal narrators.³ In Russia, Viktor Shklovsky was reading Tolstoy’s “Kholstomer,” a story focalized through a horse, and using it to develop his theory of defamiliarization.⁴ In Japan, readers devoured Natsume Soseki’s *I Am a Cat*, a satire of middle-class life presented through feline eyes. And in England, intellectuals including Bertrand Russell, Julian Huxley, J. B. S. Haldane, and Virginia Woolf were exploring animal perspectives to reconsider the nature of knowledge and uncover strange, novel views of the world.

Russell, Huxley, Haldane, and Woolf’s views on animal perspectives drew on the legacy of comparative psychology, a discipline that emerged in the late Victorian period and flourished until the rise of behaviorism

¹ I allude here to Thomas Nagel’s well-known essay “What Is It Like to Be a Bat?”

² See Franz Marc, “How Does a Horse See the World?” [1920], transl. Ernest Mundt and Peter Selz, in *Theories of Modern Art: A Source Book by Artists and Critics*, ed. Herschel Browning Chipp (University of California Press, 1968), 178–9, and Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans*, [1934] transl. Joseph D. O’Neil (University of Minnesota Press, 2010), 44–52.

³ Kafka’s other animal stories include “Josephine the Singer, or the Mouse Folk,” “The Burrow,” and, of course, *The Metamorphosis*.

⁴ See Victor Shklovsky’s “Art as Technique” [1917], in *Russian Formalist Criticism: Four Essays*, transl. Lee T. Lemon and Marion J. Reis (University of Nebraska Press, 1965), 3–24, which introduces the term *ostranenie*, or defamiliarization, and deploys “Kholstomer” as an example of the technique.

in the 1920s.⁵ Comparative psychologists aimed to understand human and animal minds from the inside. Margaret Washburn, author of the textbook *The Animal Mind*, described comparative psychology's purview as "knowledge of how the world looks from the point of view of our brother animals."⁶ Part of the school that Judith Ryan calls "empiricist psychology," comparative psychologists saw animals, including humans, as diffuse bundles of sense-impressions rather than well-defined selves oriented around an ego.⁷ Russell, Huxley, Haldane, and Woolf's notions of animal minds also draw on this empiricist tradition; the question of what animal subjectivity is like, for them, is principally a question of what sensations animals feel.

Russell captured the spirit of this approach to animal subjectivity when he wrote, in *Portraits from Memory and Other Essays* (1956), "Animals, including human beings, view the world from a center consisting of the here and now. Our senses, like a candle in the night, spread a gradually diminishing illumination upon objects as they become more distant."⁸ Russell's words imply, first, that humans are not qualitatively different from other species – the parenthetical aside "including human beings" subordinates the category of human beings to the more inclusive and important category of "animals." This assumption rests on the Darwinian postulate that there is continuity between human and animal "mental powers."⁹ Second, Russell zeroes in on the animal perspective – the unique and ever-changing standpoint from which it perceives the world around it. And third, Russell portrays the *senses* as the medium of experience and, implicitly, knowledge, for all species. The analogy of candlelight illuminating the world around the subject recalls the trope of knowledge as enlightenment. Russell thus indicates that humans and other species experience and create knowledge through vision and other sensory perceptions, a belief that places him within the empiricist tradition.

⁵ In this chapter, "Huxley" will refer to Julian Huxley, and Aldous Huxley will be referred to by his full name.

⁶ Margaret Washburn, *The Animal Mind: A Text-Book of Comparative Psychology*, 3rd ed. (Macmillan, 1926), 22.

⁷ Judith Ryan, *The Vanishing Subject*, 12. Ryan's arguments about empiricist psychology, its revision of the concept of the self, and its influence on literary modernism correspond closely with my own; but she does not delve into comparative psychology or representations of animal minds, whereas I think comparative psychology's notion of animal subjectivity was a crucial means for disseminating ideas about the subject of sensation into modernist culture at large.

⁸ Bertrand Russell, *Portraits from Memory and Other Essays* (Simon & Schuster, 1956), 178.

⁹ See Darwin's *Descent of Man*, especially chapters 2 and 3, titled "Comparison of the Mental Powers of Man and the Lower Animals," which argue that human and animal mental faculties differ only in degree, not in kind.

For both comparative psychology and its intellectual heirs, animal perspectives led to an unraveling and reweaving of empirical knowledge. Animal perspectives recast knowledge as a collection of partial, subjective observations distilled through animal senses, not a phenomenon unique to the human mind. Biology's unraveling of empiricism began in the nineteenth century. Physiologists showed that the senses, far from being transparent vehicles of information, were instead fallible and limited biological systems; psychologists, meanwhile, revealed the probability of unconscious beliefs and biases.¹⁰ The fantasy of a purely rational scientist who could transcend his own animality had, as Carrie Rohman shows, been exposed and dismantled in early modernist works like H. G. Wells's *Island of Doctor Moreau*.¹¹ Science could no longer be absolute or objective once scientists were understood as human animals with animal senses and psyches. Thus, modern scientists like Huxley and Haldane came to believe that multiplying perspectives was the best path to knowledge; no single perspective would do.

This chapter maps the travels of animal perspectives across science, philosophy, and literature in modernist Britain. Comparative psychology evolved in the late nineteenth and early twentieth centuries embroiled in debates over whether animals' subjective experiences could be studied in a scientific way – while skeptics and behaviorists answered, “no,” most comparative psychologists said “yes.” Russell studied comparative psychology in the teens as he developed his theory of mind, and his redefinition of subjectivity reflects an empiricist intellectual lineage shared with the comparative psychologists. Huxley and Haldane, meanwhile, took up comparative psychology in their essays “Philosophic Ants” and “Possible Worlds,” using the field's questions about animal perspectives as a thought experiment to reshape the epistemological foundations of science itself.

These scientific and philosophical forays into animal perspectives form the context in which Woolf wrote her fictional representations of animal subjects, primarily in “The Mark on the Wall” (1917), “Kew Gardens” (1919), and *Flush* (1933). Woolf was probably not directly acquainted with the scientific literature on animal psychology, but she

¹⁰ Peter Garratt discusses the trajectory of British empiricism in the nineteenth century as questions about the subjectivity of the perceiving self came to the fore. He argues that the skepticism about epistemology we usually associate with modernism actually has its roots in the Victorian period. See Peter Garratt, *Victorian Empiricism: Self, Knowledge, and Reality in Ruskin, Bain, Lewes, Spencer, and George Eliot* (Fairleigh Dickinson University Press, 2010).

¹¹ Rohman, *Stalking the Subject*, 69–72.

was acquainted with Huxley, Haldane, and Russell, and thus with the ideas about knowledge and subjectivity that became attached to animal perspectives in modernist scientific thought. Russell, Huxley, and Haldane were peripheral members of the Bloomsbury circle that centered on Woolf and her sister, Vanessa Bell. All were visitors to Garsington Manor, the home of Lady Ottoline Morrell and a popular destination for the London intelligentsia. Woolf, Russell, and Haldane would also have met at the Cambridge Heretics Society, a group founded in 1909 for intellectual debate and the promotion of unorthodox views.¹²

For Woolf, animal perspectives offered a way to challenge fusty, patriarchal orthodoxies about knowledge. They also provided a method for aesthetic experimentation, defamiliarizing the London haunts Woolf and her friends knew so well. Most importantly, animal perspectives helped Woolf explore the limits, and the necessity, of empathic epistemology. Pursuing further the paths laid down by Huxley, Haldane, Russell, and the comparative psychologists, Woolf's fiction meditates on the challenges and possibilities that arise when the empiricist self aims to move beyond direct experience and apprehend the revelatory strangeness of animal worlds.

4.1 Comparative Psychology and the Problem of Animal Experience

Comparative psychology was, in the period between 1890 and 1930, a modernist discipline, aligned with modernist literary themes such as a plurality of perspectives, an exploration of consciousness, and a desire to denaturalize our own point of view and see the world through different eyes. As Lorraine Daston argues, comparative psychology's preoccupation with animal *perspectives* is a historically specific phenomenon. Before the

¹² See Ann Banfield, *The Phantom Table: Woolf, Fry, Russell and the Epistemology of Modernism* (Cambridge University Press, 2000) for an account of Woolf and Russell's acquaintance. Woolf was also a casual acquaintance of Huxley's (though she was better friends with Aldous); she mentions him in a 1935 diary entry but says she did not recognize him at first; see Virginia Woolf, *The Diary of Virginia Woolf*, vol. 4, ed. Anne Olivier Bell and Andrew McNeillie (Harcourt Brace Jovanovich, 1982), 357. It seems likely that they would have met in the teens at Garsington Manor as well – Huxley was a frequent visitor; see Huxley, *Memories*, vol. 1, 114. Woolf's acquaintance with Haldane is more difficult to document. Holly Henry claims, in *Virginia Woolf and the Discourse of Science*, that Woolf read and knew Haldane (3, 68). The only specific meeting between Woolf and Haldane that I have been able to uncover is described in the appendix to *The Essays of Virginia Woolf*, vol. 3, which states that when Woolf went to Cambridge in 1924 to deliver her "Character in Fiction" lecture to the Heretics Society, she had dinner with several people "including the eminent Heretic J. B. S. Haldane" (501).

late nineteenth century, people were certainly interested in animal minds, but they did not conceptualize knowledge about these other minds in terms of putting oneself in the animal's place or inhabiting its point of view. Contrasting the late Victorian study of animal minds with the medieval study of angels, Daston points out that while medieval theologians wanted to understand angels' structures of thinking, they would never have put the question in terms of what it is like to be an angel. Only with the nineteenth-century rise of objectivity and subjectivity, Daston claims, did the question of what it is subjectively like to be an animal come to dominate the study of animal cognition.¹³

Early animal psychologists had fairly consistent ideas about what animal consciousness was like. It was, they believed, embodied rather than cerebral, passive rather than active, ruled by sensation rather than thought. The American comparative psychologist Edward Thorndike affords a representative example of how the typical turn-of-the-century scientist understood animal experience. Thorndike was not especially sentimental or sympathetic when it came to animals. He eschewed all but the most rigidly experimental methods for studying animal minds, and some of his experiments in a Columbia University laboratory were criticized for being cruel and unfeeling.¹⁴ Yet when it came to describing what it felt like to be an animal, Thorndike could not help waxing poetic. In *Animal Intelligence* (1911) he wrote that when watching animals, one "gets, or fancies he gets, a fairly definite idea of what the intellectual life of a cat or dog feels like." It is a kind of consciousness, he claims, that "contains little thought about anything," one in which "we feel the sense-impulses in their first intention, so to speak, when we feel our own body, and the impulses we give to it." Thorndike compared animal consciousness to the kind of experience humans might have when swimming:

One feels the water, the sky, the birds above, but with no thoughts *about* them or memories of how they looked at other times, or aesthetic judgments about their beauty; one feels no *ideas* about what movements he will make, but feels himself to make them, feels his body throughout.

¹³ Lorraine Daston, "Intelligences: Angelic, Animal, Human," in *Thinking with Animals: New Perspectives on Anthropomorphism*, ed. Lorraine Daston and Gregg Mitman (Columbia University Press, 2005): 37–58.

¹⁴ Robert Boakes, *From Darwin to Behaviourism: Psychology and the Minds of Animals* (Cambridge University Press, 1983), 72. Thorndike was accused of keeping his animals in a state close to starvation and of confining them in small, unnatural boxes. Boakes suggests that the criticism was unfounded, and that "the condition had been far less drastic" than Thorndike's critics assumed (72).

Self-consciousness dies away. The meanings, and values, and connections of things die away. One feels sense-impressions, has impulses, feels the movements he makes; that is all.¹⁵

Thorndike's lyrical evocation of animal consciousness makes it seem appealing in the way that meditation and yoga seem appealing: as a retreat from the stresses of intellectual work, social demands, or ideology. Repeating the word "feel" six times in this short passage, Thorndike establishes his main claim about animal consciousness: it is dominated by feeling, not thinking. It represents a more direct and embodied relationship with the environment. It is, for Thorndike, a purer state of being.

Many other scientists and writers shared Thorndike's understanding of animal consciousness, and it formed an important alternative strand of modernist primitivism. The animal life of pure sensation that Thorndike describes is not one of primal violence, as Freud or Hemingway envisioned. Nor is it one of unrestrained sexual passion, as Lawrence thought. Instead, comparative psychology's primitivism fixates on the mundane, passive experiences of animals and humans – the way water feels against skin, the way sunlight looks, the colors in a field of vision. Filtered through the prism of empiricism rather than Freudianism, comparative psychology's primitivism romanticizes not deep-seated, dark instincts, but sensations at the porous border between self and environment.

Though comparative psychologists had distinct ideas about what animals' subjective experiences were like, substantiating these ideas proved difficult. Margaret Floy Washburn's textbook *The Animal Mind*, first published in 1908, defends the scientific legitimacy of comparative psychology, but also expresses the epistemological unease that characterized the field. "We have wonderfully advanced, within the last twenty-five years, in knowledge as to how the world looks from the point of view of our brother animals," she claims in the 1926 third edition, citing hundreds of scientific studies that purport to answer questions about animals' cognitive abilities, learning processes, and sensory perceptions.¹⁶ But while she is sanguine about her discipline's accomplishments, she does not gloss over its epistemological fuzziness. To begin with, the assumption that animals have minds – or even that other humans have minds – is an inference on which most of psychology (save behaviorism) rests, and yet one that cannot be proven. "The science of human psychology," she writes, "has to reckon with this unbridgeable gap between minds as its

¹⁵ Edward Lee Thorndike, *Animal Intelligence: Experimental Studies* (Macmillan, 1911), 123.

¹⁶ Washburn, *The Animal Mind*, 3rd ed., 22.

chief difficulty.”¹⁷ The gap between the human psychologist and the animal, however, is even larger. As Washburn says, “If my neighbor’s mind is a mystery to me, how great is the mystery which looks out of the eyes of a dog, and how insoluble the problem presented by the mind of an invertebrate animal, an ant or a spider!”¹⁸

The mystery deepens when Washburn considers that other species have different sense organs than humans and thus experience sensations we know nothing of. “[W]e cannot imagine a color or a sound or a smell that we have never experienced,” she says; “how much less the sensations of a sense radically different from any that we possess!”¹⁹ Dogs live in a world of smells we never perceive; birds and other animals see colors invisible to humans; whales communicate using sounds beyond humans’ range of hearing. As the philosopher Thomas Nagel famously argued, it is virtually impossible to imagine how a bat experiences echolocation, since humans have no sense quite like it.²⁰ What Washburn’s words suggest is that, after comparative psychology, we cannot assume our human view of the world is true and complete. We must recognize that many animals have sensory experiences, and even something like knowledge, which we lack.

Washburn alludes to the empiricist foundations of comparative psychology by quoting John Locke. Locke says that no mind can “invent or frame one new simple idea,” and Washburn cites this claim as evidence that we cannot imagine some of the colors, sounds, or smells that other animals experience.²¹ Locke’s empiricist philosophy proposes that we have no innate knowledge; the mind is a *tabula rasa*, to be imprinted with knowledge derived from sensory experiences. Comparative psychologists mostly shared this assumption, and it is one of the major points of division between comparative psychology and classical ethology. Ethologists like Konrad Lorenz and Niko Tinbergen were more interested in studying animals’ inborn, instinctive behaviors, while comparative psychologists focused instead on animals’ sensations and learned behaviors.

Conwy Lloyd Morgan, one of the earliest and most influential comparative psychologists, promoted this empiricist foundation for the field in books like *Animal Life and Intelligence* (1891) and *Introduction to Comparative Psychology* (1894). A student of Darwin’s protégé George

¹⁷ Washburn, *The Animal Mind*, 1st ed. (Macmillan, 1908), 1.

¹⁸ *Ibid.*, 2.

¹⁹ *Ibid.*, 3.

²⁰ Nagel, “What Is It Like to Be a Bat?” 438.

²¹ Washburn, *The Animal Mind*, 1st ed., 3.

Romanes, Morgan combined a Lockean stress on the primacy of sensation with a Darwinian insistence on the continuity between human and animal minds. "The sense-experience," Morgan writes, "forms the foundation of our psychical life; and it can hardly be questioned that it forms the foundation of the psychical life of animals."²² What *is* questionable is whether animals' sense-experiences can be known in any scientific sense. Writing about bees, Morgan observes, "It is not improbable that the ocelli serve mainly the purpose of directing the insect to a glimmer of light, the opening of the nest, for example; while the method of vision in the many-facetted eyes, the so-called mosaic vision, is quite different from anything of which we have or can have experience."²³ He goes on to ask, "[M]ust not one infer that the nature of the sense-experience of this insect is a secret she keeps to herself, even if she be philosopher enough to fancy she has guessed it?"²⁴ His prose at once enacts comparative psychological knowledge – the function of the bee's ocelli – and renounces the very possibility of it.

Morgan's playful suggestion that the bee might herself be a philosopher points to comparative psychology's epistemological relativism. If knowledge emerges from sensory experience, and animals have different sensory experiences from humans, then human knowledge must be relative, merely one "philosophy" among many. H. G. Wells picked up on this relativism in a mostly positive review of *An Introduction to Comparative Psychology*. Noting that Morgan did not believe animals other than humans could reason or form abstract concepts, Wells responds that dogs, having "a power of olfactory discrimination infinitely beyond our own, may have on that basis a something not strictly 'rational' perhaps, but higher than mere association and analogous to and parallel with the rational." Wells goes on to tease the author: "It may even be that Professor Lloyd Morgan's dog, experimenting on Professor Lloyd Morgan with a dead rat or bone to develop some point bearing upon olfactory relationships, would arrive at a very low estimate indeed of the powers of the human mind."²⁵ Wells is poking fun at Morgan for a certain lack of imagination in evaluating the mental abilities of animals, but in fact Morgan was more imaginative than Wells gives him credit for: he

²² C. Lloyd Morgan, *An Introduction to Comparative Psychology* [1894], ed. Daniel N. Robison (University Publications of America, 1977), 157.

²³ *Ibid.*, 158.

²⁴ *Ibid.*, 159.

²⁵ H. G. Wells, "The Mind in Animals," *The Saturday Review*, 22 December 1894, 683–4, quote on 684.

anticipated Wells's comedic figure of the dog as scientist by imagining the bee as a potential philosopher.

Comparative psychology's relativism is perhaps best expressed in its language of "worlds." The notion of animal worlds is commonly associated with the German biologist Jakob von Uexküll, whose 1934 book *A Foray into the Worlds of Animals and Humans* aimed to understand the *Umwelten*, translated as "worlds" or "environments," of different creatures. Uexküll argued that an animal's world consists of "perception signs" attached to objects in the environment that are significant to that animal. The tick, for instance, lives in an *Umwelt* composed of three perception signs: the smell of a mammal, the feeling of skin, and the temperature of the mammal whose blood it feeds on. Other animals have more complicated *Umwelten*, but they operate in essentially the same way.²⁶ Uexküll, however, was not the first to suggest that different animals inhabit different subjective worlds. Morgan too used the rhetoric of worlds to understand animal minds. "[W]e must remember," he cautions readers, "that it is not merely that the same world is differently mirrored in different minds, but that they are two different worlds. If there is any truth in what I have urged in the last chapter, we *construct* the world that we see." Comparing the minds of dogs and humans, Morgan continues, "The question, then, is not – How does the world mirror itself in the mind of the dog? but rather – How far does the symbolic world of the dog resemble the symbolic world of man?"²⁷ Forty years before Uexküll, Morgan pointed out that it would be wrong to assume we as humans have objective knowledge of the singular world. Instead, both humans and dogs construct worlds; both worlds are mediated by the subject's biology; and neither is more or less real than the other.

Morgan devoted most of his career to comparative psychology, but late in life he began to express more serious doubts about scientific method as a tool for understanding animals. In 1912 he wrote to Henry Eliot Howard, "I often think that a sort of unanalyzed sympathetic artistic sense sets a man nearer to the secret of the animal mind than scientific thought which is at home in the midst of a more intellectual mode of psychological development."²⁸ Intuition, he suggested, might get us just as close to understanding animal minds as scientific practice does. We might even say that Morgan came to lose faith in the possibility of a

²⁶ Uexküll, *A Foray into the Worlds of Animals and Humans*, 50–1.

²⁷ C. Lloyd Morgan, *Animal Life and Intelligence* (E. Arnold, 1891), 336.

²⁸ Quoted in Burkhardt, *Patterns of Behavior*, 94–5. The quote is originally from a letter addressed to Howard, dated 29 May 1912, in the Howard Papers at Oxford University.

scientifically reliable answer to the problem of other minds, and instead placed his faith in the empathic possibilities of art. In the meantime, as psychologist Alan Costall has argued, Morgan's work inadvertently contributed to the rise of behaviorism. Morgan's *Introduction to Comparative Psychology* contained the following proscription, known now as Morgan's Canon: "In no case is an animal activity to be interpreted in terms of higher psychological processes if it can be fairly interpreted in terms of processes which stand lower in the scale of psychological evolution and development." Morgan certainly did not mean to foreclose all appeals to animal consciousness or intelligence in explaining animal behaviors, but, Costall argues, that is exactly how most of his followers interpreted it.²⁹

Thus the "fall" of comparative psychology in the 1920s and 1930s. In its place emerged John B. Watson's school of behaviorism, which ruled introspection an inadmissible method for psychology, and Niko Tinbergen's ethology, which similarly excluded any study of the subjective meanings of animal behaviors. Watson and Tinbergen did not deny that animals might have consciousness, but they did declare animal consciousness outside the scope of science; as Watson wrote, "One can assume either the presence or absence of consciousness anywhere in the phylogenetic scale without affecting the problems of behavior by one jot or tittle; and without influencing in any way the mode of experimental attack upon them."³⁰ Turn-of-the-century comparative psychology welcomed uncertainty, subjectivity, and imaginative forays into animal worlds as a part of science. But by the 1930s, a new division of labor had emerged: experimentally verifiable animal behaviors belonged to science, imagined animal perspectives to art.

4.2 Russell and the Subject as Sense-Data

Between science and art we might locate Bertrand Russell, a philosopher and Bloomsbury compatriot who shared the comparative psychologists' empiricist background. Russell is best known today for his *Principia Mathematica* (1910–13), coauthored with Alfred North Whitehead, and for works like *The ABC of Relativity* (1925), which popularized modern physics. He was also a political activist who went to prison during World War I for his pacifist activities. And he was a regular visitor to

²⁹ Alan Costall, "Lloyd Morgan and the Rise and Fall of 'Animal Psychology,'" *Society and Animals* 6.1 (1998): 13–29.

³⁰ John B. Watson, "Psychology as the Behaviorist Views It," *The Psychological Review* 20.2 (1913): 158–77, quote on 161.

Garsington Manor during the teens, where he befriended the Woolfs, D. H. Lawrence, Aldous Huxley, and other writers. First and foremost, though, Russell was a philosopher, and during the period 1912–21 he developed a philosophy founded on sensations and “sense-data.” As Ann Banfield demonstrates in *The Phantom Table*, Russell’s philosophy was an important influence on Woolf; I would add that comparative psychology was an important influence on Russell, and that his work helped to disseminate comparative psychological ideas about subjectivity. Russell’s early work disentangled the concept of “perspective” from the human subject, while *The Analysis of Mind* (1921) extended concepts borrowed from animal psychology to humans. Russell’s ventures into philosophy and psychology show that he rejected common-sense notions of mind and envisioned instead a zoomorphic human subject, modeled after the animal subjects of comparative psychology.

Russell’s early philosophy reconceptualizes the physical world through the language of the senses. He outlines, in *Our Knowledge of the External World* (1914) and “The Relation of Sense-Data to Physics” (1914), an account of physical matter *as* sense-data. We are used to thinking of an object, such as a table, as a solid, unchanging thing that merely appears different depending upon where we are standing. A person standing at the head of a table receives different sensory impressions than a person standing at its side, but we do not think of this as any indication that the table itself is different. Russell, however, argues that the “table” *is* in fact a series of related sense-data, and not a single, consistent object. “All the aspects of a thing are real,” he writes, “whereas the thing is a merely logical construction.”³¹ Russell’s language echoes Morgan, who claimed that “we *construct* the world that we see” and that different creatures’ constructed worlds are equally real. Russell is making an even more counterintuitive claim; however, he regards sense-data “as not mental, and as being, in fact, part of the actual subject-matter of physics.”³² It is sense-data, rather than matter (or mind), that is the essence of the world.

The world according to Russell is thus a system of perspectives. By “perspective,” however, he does not mean a psychological perspective belonging to a conscious subject, but instead a spatial, geometric perspective. In *The Analysis of Mind*, he clarifies that a perspective can, but need not, be occupied by a human or a living thing. Photographic plates, he suggests, afford the best example of a nonmental entity with

³¹ Bertrand Russell, *Our Knowledge of the External World* [1914] (W.W. Norton, 1929), 94.

³² Bertrand Russell, *Mysticism and Logic* [1918] (W.W. Norton, 1929), 149.

a perspective; they receive and record sense-data with no semblance of a mind.³³ When perspectives *are* inhabited by subjects, Russell considers these subjects more similar to the photographic plate than to any traditional concept of self. The subject, for him, is not a preexisting entity that *has* sensations; instead, experiences of sense-data *constitute* the subject.³⁴ As Banfield argues, one of the central goals of Russell's philosophical project is to "par[e] down the I."³⁵ Russell's philosophy reenvisions the subject as the perspective, a concept that levels out human, animal, and mechanical points of view. Subjects of the liberal humanist or psychoanalytic sorts are nowhere in Russell's work, but subjectivity is everywhere.

Russell distinguishes semantically between perspectives that are inhabited by a human or animal subject and those that are not, using the term "private worlds" to describe the former.³⁶ Like Morgan before him and Haldane and Uexküll after, Russell sees in the plurality of "worlds" a more apt designation than the singular "world" to describe the things around us. "Worlds" and "perspectives" emphasize that there is no single perfect, objective world or perspective in his philosophy. These words also minimize the contribution of the conscious self in favor of the subject's *position*. Worlds function as spaces that the subject may inhabit and outlooks that the subject may take, but exist prior to and independent of the subject itself.

Thus far it seems that Russell has little, if anything, to say about "mind" or psychology. And it is true that he thought philosophy should not assume the existence of consciousness a priori, but should approach the concept with skepticism. Yet he is not quite the advocate of impersonality or reductionist materialism that he might seem from the discussion above. In fact, Russell took a "psychological turn" around 1918 in preparation for writing *The Analysis of Mind*, and his foray into psychology depended on the interventions of the comparative psychologists. Works like *Our Knowledge of the External World* tear down humanist understandings of mind by reducing it to a holding-place for sense-data; *The Analysis of Mind*, written after Russell read up on comparative psychology, builds a new understanding of the mind that is sparer and more zoomorphic than the old one.

Russell began studying psychology in prison, where he read the works of many comparative psychologists include Thorndike,

³³ Bertrand Russell, *The Analysis of Mind* [1921] (George Allen & Unwin, 1949), 129–31.

³⁴ *Ibid.*, 13.

³⁵ Banfield, *The Phantom Table*, 162.

³⁶ Russell, *Our Knowledge of the External World*, 93.

Washburn, Morgan, and Watson.³⁷ Watson plays a major role in *The Analysis of Mind*, and what Richard F. Kitchener calls a “flirtation with behaviorism” is a central act in Russell’s psychological turn.³⁸ Watson called for psychology to be an objective science. This meant rejecting introspective methods of investigation and making empirically observable behaviors, rather than mental states, the object of study. He ran his psychological experiments on rats without caring about the rats’ conscious processes; the psychology of humans, he argued, should similarly “dispense with consciousness.”³⁹ Mental states, in his schema, could be reduced to “faint throat, chest, and laryngeal movements.” Thinking was, he insisted, a physiological activity not qualitatively different from playing tennis.⁴⁰

Behaviorism attracted Russell because he too doubted the existence of consciousness, at least as it is normally conceived. His doubt reflects the influence not just of Watson, but also of Franz Brentano and William James, two of the “empiricist psychologists” that, Judith Ryan argues, contributed to the turn-of-the-century redefinition of the subject as “a fluid, unbounded self essentially composed of sense impressions, a self that was not distinct from its surroundings.”⁴¹ Consciousness is not empirically observable, and Russell thought that any philosophy or science worth its salt should not assume its existence a priori. Furthermore, “paring down the I” is a keystone of Russell’s philosophy, and behaviorism represents one logical extension of this train of thought. Behaviorism pares down the “I” until there is no “I” left at all.

Yet Russell stops short of the behaviorists, reaching an account of mind that is closer to that of comparative psychologists like Morgan than to behaviorist psychologists like Watson. In his attempt to distill the concept of mind to its essence, Russell reaches two irreducible parts: sensations and images, a word he uses to mean remembered sensations. The latter is an exclusively mental phenomenon, corresponding to

³⁷ Russell’s list of “Philosophical books read in prison” (1918) includes Washburn’s *The Animal Mind*, along with many works on human psychology; *The Analysis of Mind* cites Thorndike, Morgan, and Watson. See “Appendix III: Philosophical Books Read in Prison,” in *The Collected Papers of Bertrand Russell*, vol. 8, ed. John G. Slater (George Allen & Unwin, 1986): 315–28.

³⁸ Richard F. Kitchener, “Bertrand Russell’s Flirtation with Behaviorism,” *Behavior and Philosophy* 32.2 (2004): 273–91.

³⁹ Watson, “Psychology as the Behaviorist Views It,” 176.

⁴⁰ John B. Watson, “*The Analysis of Mind*, Bertrand Russell,” *The Dial* 72 (1922): 98; quoted in Kitchener, “Bertrand Russell’s Flirtation with Behaviorism,” 281–2.

⁴¹ Ryan, *The Vanishing Self*, 12. For Brentano and James’s influence on Russell, see Russell, *The Analysis of Mind*, 9–26.

nothing in the observable world, and thus inadmissible to the behaviorists.⁴² Images are accessible only through introspection. So are private sensations, such as feelings in our own bodies that cannot be observed externally but are nevertheless real.⁴³ Thus, introspection cannot be entirely eliminated from the practice of psychology. In short, Russell diverges from the behaviorists because he believes psychology must account for an internal mental life. This mental life is, at its heart, nothing more than sensations and their echoes, but for Russell it is real and it is not fully explicable through external observation alone.

Russell's notion of mental life sounds a lot like the comparative psychologists' notion of what it is like to be an animal. And like most comparative psychologists, Russell believed that humans' and animals' mental lives are not qualitatively different. He encourages his readers "to remember that from the protozoa to man there is nowhere a very wide gap either in structure or in behaviour. From this fact it is a highly probable inference that there is also nowhere a very wide mental gap."⁴⁴ Assuming mental continuity among all species, Russell contends that "there is probably more to be learnt about human psychology from animals than about animal psychology from human beings."⁴⁵ The statement flips the script of anthropomorphism; rather than anthropomorphizing animals, Russell proposes zoomorphizing humans. What many psychologists would agree is true of other species – that their experience is composed of sensations (present and past) and not subordinated to a coherent ego – Russell argues is true of humans as well.

In applying animal psychology to humans, Russell creates a vision of the human that is more in accord with modernist versions of subjectivity, particularly Woolf's.⁴⁶ Recasting mind in terms of perspectives, Russell's works elevate sensations and images themselves at the expense of the

⁴² Russell, *The Analysis of Mind*, 144–52.

⁴³ *Ibid.*, 117.

⁴⁴ *Ibid.*, 41.

⁴⁵ *Ibid.*, 43.

⁴⁶ In this claim I am in agreement with Banfield, who identifies parallels between the Russellian and Woolfian subjects (though Banfield does not address the role of animal psychology's ideas about subjectivity in contributing to these parallels). Timothy Mackin, in "Private Worlds, Public Minds: Woolf, Russell, and Photographic Vision," *Journal of Modern Literature* 33.3 (2010): 112–30, has made a counterargument that Woolf disagrees with Russell's ideas about private worlds and mental life, saying, "Woolf clearly does have her suspicions of the 'I,' but that doesn't mean she is willing to abandon the personal" (121). I think Mackin is right about Woolf, but wrong about Russell. Despite Russell's desire to get rid of concepts like "consciousness" that are not empirically verifiable, he never quite eradicates the personal – it remains a key part of his theory of mind in the form of private sensations and images.

experiencing subject. We learn, from studying animals, that we are like them. Despite humans' belief in our own complicated selfhood, Russell argues that we are actually, like the animals, mere bundles of sensations and images, open to and constituted by the sense-data of the world.

4.3 Huxley, Haldane, and the Philosophical Animals

Enter Julian Huxley and J. B. S. Haldane, close friends, fellow biologists, popular science writers and, like Russell, inheritors of comparative psychology. Both had a reputation for "scientism" – the belief that science represents the most reliable way of knowing the world and that scientific progress is the key to human progress. The reputation is not undeserved, and yet Huxley and Haldane also brought their scientific skepticism to bear on science itself, expressing wariness about its promises of knowledge and objectivity. In Huxley's "Philosophic Ants" (1922) and Haldane's "Possible Worlds" (1927), the authors reflected on "biological relativity" and how it colors and limits scientific knowledge. And crucially, both used the trope of the animal philosopher or animal scientist in their essays, a trope we have already seen in Morgan's philosophic bee and H. G. Wells's scientific dog. The figure of the philosophical animal helped Huxley and Haldane put human knowledge in perspective.

Huxley's "Philosophic Ants: A Biologic Fantasy" begins with a fable of intelligent ants. Ants are ectothermic creatures whose rates of activity depend on temperature. These intelligent ants thus notice not that some days seem warmer than others, but that some days seem to last longer than others. Attempting to make sense of their oddly-rhythmed world, the intelligent ants progress from religious to scientific explanations. This bit of fiction, clearly an allegory for the Scientific Revolution and the persecution of early scientific thinkers like Galileo, also paves the way for Huxley's reflections on "biological relativity." Biological relativity represents Huxley's attempt to import the concept of relativity, then in vogue in English intellectual circles, from physics to the life sciences. Physics tells us that two observers, traveling at different speeds, will make different observations about the motion of a third object, and both will be right. Huxley's notion of biological relativity says that two observers (say, an ant and a human), equipped with different biological traits, will make different observations about the external world, and both will be right.

The upshot of Huxley's ant fable is to relativize humans' empirical knowledge of the world. "We are," he says, "but parochial creatures endowed only with sense-organs giving information about the agencies

normally found in our own little environment.”⁴⁷ This insight is similar to Morgan's recognition that the dog and the human both live in “symbolic worlds.” The project that Huxley begins in “Philosophic Ants,” and Haldane finishes in “Possible Worlds,” is to extend that claim from the realm of psychology into the realm of the philosophy of science. Huxley and Haldane recognized the relativity of human knowledge, but they also looked for ways to reconcile this relativism with their faith that human knowledge could still be expanded and made more reliable through scientific practice.

“Possible Worlds,” which cites “Philosophic Ants” and is clearly inspired by it, aims to reexamine our assumptions about the nature of reality by “considering whether a plausible world or a coherent experience might not exist in which they are not fulfilled.”⁴⁸ Haldane challenges common sense through a series of thought experiments in which he constructs hypothetical “possible worlds,” many belonging to hyper-intelligent animals. “How does the world appear to a being with different senses or instincts from our own?” he asks, “and if such beings postulated a reality behind these appearances, what would they regard as real?”⁴⁹ The essay goes on to explore how a dog, barnacle, and bee, endowed with different senses and instincts, might perceive and make sense of the world.

Perhaps the most memorable character in “Possible Worlds” is the philosophical barnacle, Haldane's rejoinder to Huxley's philosophic ants. The barnacle is rooted to a surface, where it can move its arms and stalks to “explore a sharply limited volume of space.”⁵⁰ It has a crude sense of sight and of direction, but no more:

‘The world,’ it says, ‘is what we can sweep with our arms. Things come into it, and my visions are of some use to me in telling me of things that will come into being in it, but they are notoriously deceptive. I know that when a vision becomes very large it is time for me to shut my shell, though sometimes even a very large vision does not portend any real event ... Visions are visions and realities are realities, and no good will come of mixing them up.’⁵¹

Like Huxley, Haldane turns to the conventions of fable, whimsically endowing the barnacle with language and philosophy. Beneath this anthropomorphism, however, lies a realistic foundation of barnacle

⁴⁷ Huxley, *Essays of a Biologist*, 161.

⁴⁸ Haldane, *Possible Worlds*, 261.

⁴⁹ *Ibid.*, 264–5.

⁵⁰ *Ibid.*, 276.

⁵¹ *Ibid.*, 277.

sense-experience. The barnacle constructs its world from sensations past and present. Its mind, like a Lockean *tabula rasa*, is inscribed with the patterns of experience. The barnacle's speech teaches us that there is nothing inevitable about associating seeing with believing. Had we evolved to have poor eyesight and excellent senses of hearing or smell, we would structure our notion of reality differently.

Haldane was not a pure empiricist, though; he recognized that animal minds are not truly *tabulae rasae*, but come preetched with instincts. Here it is worth mentioning that Haldane was a geneticist and a key figure in the modern evolutionary synthesis, which combined natural selection with Mendelian genetics. As a geneticist, Haldane attributed mental phenomena partly to inherited traits such as instincts, not solely to environmental factors such as sense-experience. Take, for example, an animal with highly developed instincts, like the bee. How would a thinking bee explain the nature of reality? Haldane says that a bee's instincts would lead it to consider duties the principal component of reality and external objects only a secondary component. "I do not see why we should deny the bee the reality of her duty world," he declares. "Duties are, I suspect, as real as material things, which is not perhaps saying much."⁵²

The point of these thought experiments is to demonstrate that our knowledge depends on our human senses and instincts, and that our perspective is just one among many. Our knowledge of the world is constrained by our biology. "My own suspicion," wrote Haldane, "is that the universe is not only queerer than we suppose, but queerer than we *can* suppose."⁵³ We can make progress in debunking common sense and imagining other perspectives, but eventually we will hit a wall. Haldane seemed to take pleasure in these limitations, asserting, "I do not feel that any of us know enough about the possible kinds of being and thought, to make it worth while taking any of our metaphysical systems very much more seriously than those at which a thinking barnacle might arrive."⁵⁴

Yet Haldane also remained optimistic about the future of science because there is still much to be learned from taking other perspectives into account. Though "our present ignorance of animal psychology" means that his hypothetical creatures are probably far from their real-world counterparts, the qualifier "present" suggests that Haldane believed scientists would better comprehend animal minds in the future. Indeed,

⁵² *Ibid.*, 273.

⁵³ *Ibid.*, 286.

⁵⁴ *Ibid.*, 280.

an understanding of animal perspectives plays a crucial role in the development of science itself for Haldane. "Our only hope of understanding the universe," he declared, "is to look at it from as many different points of view as possible."⁵⁵

This faith that it is possible to look at the universe from other points of view connects Haldane and Huxley to Russell. Though all three wrote out of the empiricist tradition, they also believed in a form of empathic epistemology that allows us to know things beyond our own direct experience. Empathic epistemology is what allows us to emerge from our own private worlds and build collective kinds of knowledge, like philosophy and science. Russell, Huxley, and Haldane all rejected solipsism; as Russell said, "I do not think this theory [solipsism] can be refuted, but I also do not think that anybody can sincerely believe it."⁵⁶ Likewise, the stance that animal minds are fully opaque to us cannot be refuted, but few who spend any amount of time observing animals can sincerely believe it.

"Philosophic Ants" and "Possible Worlds" are not themselves works of comparative psychology, but instead theoretical exercises in constructing knowledge from different subject positions. Yet comparative psychology's influence on both essays is evident. It led Huxley and Haldane to employ the fiction of the philosophical animal, to recognize that knowledge is subjective, and to embrace introspection and speculation within scientific thinking. The scientist's perspective, as we learned from Morgan, is already subjective, conditioned by his or her human frames of reference and human senses. But Huxley and Haldane suggest that we can still garner knowledge from other points of view. We remain, like the barnacle, rooted in our own perspectives, but we can stretch outside of them.

4.4 Woolf and the Aesthetics of Animal Experience

Virginia Woolf wrote frequently about animals: butterflies, moths, birds, cats, and dogs populate her work and reveal a naturalist's fascination with other creatures. Woolf's engagement with natural history has drawn attention from other critics.⁵⁷ Most notably, Gillian Beer has explored

⁵⁵ *Ibid.*, 285–6.

⁵⁶ Bertrand Russell, *My Philosophical Development* [1959] (Routledge, 1995), 78.

⁵⁷ For studies of *Lepidoptera* in Woolf, see Rachel Sarsfield, "From the Chrysalis to the Display Case: The Butterfly's 'Voyage Out' in Virginia Woolf," in *Insect Poetics*, ed. Eric C. Brown (University of Minnesota Press, 2006): 87–111; Harvena Richter, "Hunting the Moth: Virginia Woolf and the Creative Imagination," in *Virginia Woolf: Reevaluation and Continuity*, ed. Ralph Freedman (University of California Press, 1980): 13–28; and Christine Froula, "Out of the Chrysalis: Female

how Darwinian ideas about time and prehistory infused Woolf's writing.⁵⁸ Bonnie Kime Scott, meanwhile, suggests that Woolf's fiction revisits her childhood forays into natural history, especially insect-collecting.⁵⁹ And Christina Alt argues that Woolf's animals and plants reflect awareness of both Victorian natural history and modern biology. Alt shows that Woolf admired the ethology of W. H. Hudson, the proto-ecological entomology of Eleanor Ormerod, and the laboratory biology of Marie Stopes.⁶⁰ Not only did Woolf appreciate the new approaches to the study of nature, she also used them to help articulate her literary theory, which rejects pinning down and taxonomic classification in favor of observing life in its fleeting, ever-changing movement. For Woolf, Alt concludes, "writing is not a process of capturing, classifying, and arranging words for display, but rather one of observing and recording the behaviour of words," as if they were themselves animals.⁶¹

Ecocritics have also begun to reclaim Woolf as an environmentally sensitive writer, and her animals can be understood as part of her ecological consciousness. Most notably, Louise Westling and Kelly Sultzbach have explored parallels between Woolf's writing and the ecophenomenology of Maurice Merleau-Ponty. Merleau-Ponty, whose 1957–8 "Nature" lectures drew on embryology, Jakob von Uexküll's *Umwelten*, and Konrad Lorenz's ethological work on animal instincts, "[built] a case for the profound interrelationship of creatures with their environments," Westling writes.⁶² For Merleau-Ponty as for Woolf, "our sensations are the active expression of relationship, a continuing *communion* with the living world."⁶³ Sultzbach, meanwhile, explores how Woolf's evocations of the sensory world prefigure ecophenomenology by flattening out the divide between subject and environment in order to emphasize

Initiation and Female Authority in Virginia Woolf's *The Voyage Out*," in *Virginia Woolf: A Collection of Critical Essays*, ed. Margaret Homan (Prentice-Hall, 1993): 136–61. The 2010 International Conference on Virginia Woolf focused on Woolf's engagements with nature; see Kristin Czarnecki and Carrie Rohman, eds., *Virginia Woolf and the Natural World: Selected Papers from the Twentieth Annual International Conference on Virginia Woolf* (Clemson University Digital Press, 2011). Animal studies criticism of Woolf will be discussed later in this chapter.

⁵⁸ Gillian Beer, "Virginia Woolf and Prehistory," in *Arguing with the Past: Essays in Narrative from Woolf to Sidney*, by Gillian Beer (Routledge, 1999): 159–82.

⁵⁹ Bonnie Kime Scott, *In the Hollow of the Wave: Virginia Woolf and Modernist Uses of Nature* (University of Virginia Press, 2012), 42–70.

⁶⁰ Alt, *Virginia Woolf and the Study of Nature*, 152–4, 135–47, 114–27.

⁶¹ *Ibid.*, 190.

⁶² Louise Westling, "Merleau-Ponty's Human-Animality Intertwining and the Animal Question," *Configurations* 18.1–2 (2010): 161–80, quote on 167.

⁶³ Louise Westling, "Virginia Woolf and the Flesh of the World," *New Literary History* 30 (1999): 855–75, quote on 864.

their shared materiality and “interrelated existence.”⁶⁴ Woolf’s animal subjects, including the human ones, are open to their environments through their senses, and her experiments in prose aim to evoke these phenomenological worlds.

Woolf’s animal subjects-in-worlds represent not only a precocious form of ecophenomenology, but also her own literary version of comparative psychology. She was acquainted with Russell, Huxley, and Haldane, and stories like “The Mark on the Wall,” “Kew Gardens,” and *Flush* demonstrate that she shared their interest in animal perspectives and the epistemological questions they raise. These works also show that for Woolf, writing animal subjects was an opportunity to develop some of her signature modernist techniques – a mutable point of view, defamiliarizing imagery, and delayed decoding. Woolf’s thinking animals enact a zoomorphic form of subjectivity as Russell’s subjects do, and they interrogate human knowledge just as the philosophical ants, barnacles, and bees of Huxley and Haldane’s essays do. Her animal representations also foreground something that lies latent in Russell, Huxley, and Haldane’s work: that nonhuman perspectives can be a source of aesthetic novelty and pleasure.

“The Mark on the Wall” (1917) frames animal subjectivity as an attractive alternative to complicated, inward-facing human subjectivity. The story relates the thoughts of an unnamed narrator as she observes a mark on the wall in her living room and wonders what it might be. Though her thoughts begin with and periodically return to the mark, they also spin out dizzily into other topics – lost possessions, Shakespeare, self-reflection, Sundays past, the South Downs, the nature of knowledge, trees, to name a few. The narrator’s stream of consciousness flows rapidly and unpredictably. Only when another character speaks and identifies the mark on the wall as a snail do the narrator’s speculation and the story end.

One might be tempted to read “The Mark on the Wall” as a celebration of modernism’s new techniques for representing consciousness. But the narrator is troubled by the rapid upheaval in her stream of consciousness. “The inaccuracy of thought!” she despairs at one point; at another she muses, “I want to think quietly, calmly, spaciouly, never to be interrupted, never to have to rise from my chair, to slip easily from one thing

⁶⁴ Sultzbach, *Ecocriticism in the Modernist Imagination*, 84.

to another, without any sense of hostility, or obstacle.”⁶⁵ But thought does not accommodate this desire, manifesting itself instead in stormier ways: “Everything’s moving, falling, slipping, vanishing ...”⁶⁶ Douglas Mao has argued that Woolf’s work reflects a modernist backlash against human subjectivity. Modernity, he suggests, “could be construed as an affair of consciousness gone awry, a phenomenon of subjectivity grown rapacious and fantastically powerful.”⁶⁷ Modernists like Woolf sought, instead, “immunity to thinking and knowing, the noble repose that comes of being out of reach of human persuasion.”⁶⁸ “The Mark on the Wall” betrays this kind of doubt about human consciousness, portraying it as “inaccurate,” confusing, and tempestuous. Woolf’s narrator seeks the “noble repose” that lies outside of human consciousness.

The story encodes a potential solution to this fatigue by imagining animal forms of consciousness, using imagery that recalls the primitivism of comparative psychology. The narrator wishes for “a world which one could slice with one’s thoughts as a fish slices the water with his fin, grazing the stems of the water-lilies, hanging suspended over nests of white sea eggs ... How peaceful it is down here, rooted in the centre of the world and gazing up through the grey waters, with their sudden gleams of light and their reflections.”⁶⁹ The passage begins with a simile describing the narrator’s wish for the process of thinking to be sharper, clearer, and under her control, but the paragraph is quickly derailed by the simile’s second half, in which she imagines what it is like to be a fish. Echoing Thorndike’s description of animal consciousness as resembling the sensations of swimming, the narrator finds pleasure in the moment when her thought is diverted to the fish’s underwater world and its calm passivity. This fantasy suggests that it is most desirable not to exercise control over the stream of consciousness and “slice” the world with it, but instead to have an experience akin to the fish’s. For its experience, composed of appealing impressions like the feel of the water-lilies or the look of light refracted through the water, is peaceful and passive, without intellectual struggle.

⁶⁵ Virginia Woolf, *The Complete Shorter Fiction of Virginia Woolf*, ed. Susan Dick (Harcourt Brace Jovanovich, 1985), 84–5.

⁶⁶ *Ibid.*, 89.

⁶⁷ Mao, *Solid Objects*, 8.

⁶⁸ *Ibid.*, 9. Mao goes on to argue that modernists turned to the object world for relief from human subjectivity and ideology.

⁶⁹ Woolf, *Complete Shorter Fiction*, 87–8; Woolf’s ellipsis.

The daydream comes to an end, however, with the aside, “if it were not for Whitaker’s Almanack – if it were not for the Table of Precedency!”⁷⁰ “Whitaker’s Almanack” and the “Table of Precedency” allude to an earlier part of the narrator’s internal monologue in which she contemplates “the masculine point of view which governs our lives, which sets the standard, which establishes Whitaker’s Table of Precedency” (a table that laid out the order of rank for the English aristocracy), and which in modern times may yet “be laughed into the dustbin ... leaving us all with an intoxicating sense of illegitimate freedom.”⁷¹ The almanac and table are metonymies for a restrictive and patriarchal ideological apparatus; they also represent the frustrating vagaries of human thought, asserting themselves and interrupting the reverie despite the narrator’s wishes. Yet Woolf offers us a glimpse of possibility for an alternative way of being. Animal subjectivity, in the form of the fish, offers a different kind of experience.

Science and philosophy, like Whitaker’s Almanack, are tied up with the patriarchal ideology that Woolf opposes, and the narrator expresses distrust of these sorts of knowledge at several points in the story. “The ignorance of humanity!” she thinks to herself.⁷² “Nothing is proved, nothing is known,” she declares; “And if I were to get up at this very moment and ascertain that the mark on the wall is really – what shall I say? – the head of a gigantic old nail ... what should I gain? Knowledge? Matter for further speculation?”⁷³ To examine the mark more closely would produce some kind of empirical verification of its nature, but the narrator doubts that this would create knowledge on any but the most superficial level. Woolf criticizes the certitude of “learned men,” putting their epistemology on a level with the superstitions of “witches and hermits.”⁷⁴ In expressing skepticism about the truth-value of what passes for knowledge, Woolf brings to the surface an undercurrent hidden in Russell, Huxley, and Haldane’s texts (those “learned men”!). While they insist that the multiplicity of perspectives allows us to reject solipsism and garner knowledge from beyond our private worlds, the fear that this provisional kind of almost-knowledge isn’t good enough seems to lurk behind their claims. Only Woolf, however, actually gives voice to this fear.

⁷⁰ *Ibid.*, 88.

⁷¹ *Ibid.*, 86.

⁷² *Ibid.*, 84.

⁷³ *Ibid.*, 87.

⁷⁴ *Ibid.*

Yet Woolf shares Russell, Huxley, and Haldane's interest in opening up the horizons of knowledge and not simply discounting the very possibility of it. In the following passage, the narrator imagines inhabiting a strange point of view and attempting to construct knowledge from this vantage point:

But after life. The slow pulling down of thick green stalks so that the cup of the flower, as it turns over, deluges one with purple and red light. Why, after all, should one not be born there as one is born here, helpless, speechless, unable to focus one's eyesight, groping at the roots of grass, at the toes of the Giants? As for saying which are trees, and which are men and women, or whether there are such things, that one won't be in a condition to do for fifty years or so. There will be nothing but spaces of light and dark, intersected by thick stalks, and rather higher up perhaps, rose-shaped blots of an indistinct colour – dim pinks and blues – which will, as time goes on, become more definite, become – I don't know what ...⁷⁵

The passage begins by meditating on what happens "after life," perhaps from the perspective of the corpse as it is buried and plants grow over it. But at some point, the perspective changes, shifting from the dead to a subject "born there," "at the roots of grass." Holly Henry points out that this moment resonates with Haldane's "Possible Worlds" because both texts focus on "multiple and alien perspectives," especially those that operate on scales much smaller or larger than human perception. She suggests that the perspective here is that of an insect.⁷⁶ I think that it could represent an insect, or perhaps a tree, since a tree would grow taller over fifty years and things "higher up" might gradually "become more definite" for it, and since the narrator imagines tree consciousness elsewhere in the story. Whatever the subject inhabiting this private world, it is one that creates knowledge from its sensations of spaces, colors, and blots; it makes inferences about whether trees and people are real entities or not. Its nonhuman epistemology converges uncannily with the philosophical ants and barnacles of Huxley and Haldane's essays. The subject's knowledge is contingent and provisional, never reaching the level of certainty that "learned men" believe they have attained. Indeed, the narrator ends this train of thought with an acknowledgement of *not* knowing, implying that there can be no recuperation of absolute knowledge. Yet the passage suggests that seeking to know one's world empirically, while always an incomplete and flawed project, is also a way of engaging with

⁷⁵ *Ibid.*, 84; Woolf's ellipses.

⁷⁶ Henry, *Virginia Woolf and the Discourse of Science*, 90.

that world on an aesthetic level. It allows one to look outward, appreciating the “rose-shaped blots” and “pinks and blues” in one’s environment.

“The Mark on the Wall” explores the perspectives of a fish, a tree, and, of course, humans, but not of the snail on the wall itself. When another character remarks to the narrator, “All the same, I don’t see why we should have a snail on our wall,” the narrator thinks, “Ah, the mark on the wall! It was a snail,” and the story ends.⁷⁷ To name the mark a snail is to fix it and thus to foreclose all the other possibilities that led to the narrator’s imaginings in the first place – or so the story’s logic goes. As Christina Alt suggests, the story “can be read as a deferral of classification, and conclusive categorization is presented as inimical to the creative process.”⁷⁸ But in the later story “Kew Gardens” (1919), a story that Woolf envisioned as “dancing in unity” with “The Mark on the Wall,” the creature that was an opaque object, a stopper in the narrator’s stream of consciousness, becomes instead a fleshed-out subject.⁷⁹

“Kew Gardens” can be read as a sequel to “The Mark on the Wall” not only because both share the snail image, but also because both stories center on the multiplicity of perspectives. While “The Mark on the Wall” spotlights a single character’s protean consciousness, “Kew Gardens” embraces multiple characters as focalizers, including an animal. The story revolves around several pairs of people walking by a flowerbed, where a snail embarks on smaller-scale perambulations. The third-person narrator’s vantage point at the flowerbed remains constant, but the characters move in and out of focus, their thoughts, conversations, and actions occupying a few paragraphs each. The snail, like the human characters, has thoughts and takes deliberate actions, and Woolf represents its simple experience as a richness of sensation.

Perspective shifts in “Kew Gardens” on the level of style as well as plot. The narrator’s voice ranges from a third-person objective narration, in which characters are described as they would appear to an outsider, to a third-person limited narration that registers a character’s thoughts, to interior monologue, and finally to the free indirect discourse for which Woolf is so well known. This mutability in the narrator’s position reflects the story’s thematic focus on the diversity of perspectives. Woolf’s flowerbed, like Russell’s table, is constituted by the different subjective views of it. And, like Huxley and Haldane, Woolf recognizes that fiction is

⁷⁷ Woolf, *Complete Shorter Fiction*, 89.

⁷⁸ Alt, *Virginia Woolf and the Study of Nature*, 171.

⁷⁹ Virginia Woolf, *A Writer’s Diary: Being Extracts from the Diary of Virginia Woolf*, ed. Leonard Woolf (Harcourt, 2003), 22.

perhaps the best tool for capturing this array of perspectives. It is the prerogative of Woolf's third-person fictional narrator to weave in and out of different characters' private worlds.

The snail, like the flowerbed, serves as a focal point for the story. Its perspective represents an aesthetic experiment in defamiliarization as well as an exploration of animal cognition. Woolf introduces us to the snail through a passing remark in the first paragraph: "The light fell either upon the smooth grey back of a pebble, or the shell of a snail with its brown circular veins."⁸⁰ The narration here remains objective and external. Objective language introduces the snail's next appearance as well:

In the oval flower-bed the snail, whose shell had been stained red, blue and yellow for the space of two minutes or so, now appeared to be moving very slightly in its shell, and next began to labour over the crumbs of loose earth which broke away and rolled down as it passed over them. It appeared to have a definite goal in front of it, differing in this respect from the singular high stepping angular green insect who attempted to cross in front of it, and waited for a second with its antennae trembling as if in deliberation, and then stepped off as rapidly and strangely in the opposite direction.⁸¹

The narrator occupies some position outside the snail and grasshopper, a vantage point from which the snail "appears" to be moving and thinking, the grasshopper's "deliberation" qualified by the phrase "as if."

At this point, however, the passage turns to a more subjective perspective as the narrator enters the mind of the snail:

Brown cliffs with deep green lakes in the hollows, flat, blade-like trees that waved from root to tip, round boulders of grey stone, vast crumpled surfaces of a thin crackling texture – all these objects lay across the snail's progress between one stalk and another to his goal. Before he had decided whether to circumvent the arched tent of a dead leaf or to breast it there came past the bed the feet of other human beings.⁸²

With the phrase "[b]rown cliffs," the narrative re-orientates readers to a snail's-eye view of the garden. Woolf presents in this sentence an impressionistic micro-landscape that invites readers to see tiny pebbles and leaves and blades of grass in a new way. When we imagine ourselves looking through the eyes of a snail, the minutiae of a flowerbed become objects of wonder. Of course, we are not fully inside the snail's private

⁸⁰ Woolf, *Complete Shorter Fiction*, 90.

⁸¹ *Ibid.*, 91.

⁸² *Ibid.*, 91–2.

world here – the narration remains third person and maintains human mediation of the snail's perspective. The metaphors of cliffs, deep lakes, trees, and boulders rely on a human scale. We can only understand what seems vast to the snail by comparing it to what seems vast to us. Woolf does not ask readers to abandon their human frame of reference entirely, and indeed, it would be impossible to do so because, in Morgan's words, "we cannot think of [animal minds] in any other terms than those of human consciousness."⁸³ But she does fashion for us an encounter with a strange perspective, showing us glimpses of another world that partly overlaps with our own.

Woolf's snail is more than just a new lens for aesthetic contemplation, however. He is also a subject who registers his sensations in conscious thought, as becomes clear the next time the narration returns to him:

The snail had now considered every possible method of reaching his goal without going round the dead leaf or climbing over it. Let alone the effort needed for climbing a leaf, he was doubtful whether the thin texture which vibrated with such an alarming crackle when touched even by the tips of his horns would bear his weight; and this determined him finally to creep beneath it, for there was a point where the leaf curved high enough from the ground to admit him. He had just inserted his head in the opening and was taking stock of the high brown roof and was getting used to the cool brown light when two other people came past outside on the turf.⁸⁴

As in the accounts of the comparative psychologists, in this passage the snail's thoughts are tied directly to the sensory world – the crackle and thinness of the dead leaf, the coolness and light of its underside. The snail is no unconscious automaton; he is aware of these stimuli and what they mean. As Alt observes, he has "the ability to evaluate conditions, feel doubt, and make decisions."⁸⁵ He exhibits logical reasoning when he "determines" to crawl under the leaf rather than over it. This moment of anthropomorphic ratiocination might trigger skepticism in some readers, but I think it would meet the approval of at least one scientist who studied comparative psychology – Darwin. The snail's assessment of the leaf echoes Darwin's claim, in his 1881 *Formation of Vegetable Mould Through the Action of Worms*, that earthworms assess the size and shape of leaves as they drag them into their underground tunnels. "We can hardly escape from the conclusion that worms show some degree of intelligence in their

⁸³ Morgan, *Animal Life and Intelligence*, 335.

⁸⁴ Woolf, *Complete Shorter Fiction*, 93–4.

⁸⁵ Alt, *Virginia Woolf and the Study of Nature*, 148.

manner of plugging up their burrow,” he declared.⁸⁶ In addition, Kelly Sultzbach suggests that the snail’s intentional behavior in this moment might reflect the influence of Frederick Gamble’s *The Animal World* (1911), which argued that animals have not only awareness but also a “power of choice.”⁸⁷ Woolf’s rational snail, then, is consonant with some contemporaneous scientific representations of invertebrate minds.

Like “The Mark on the Wall,” “Kew Gardens” presents animal experience as a welcome alternative to human subjectivity. The human characters are haunted by their memories, “the spirits of the dead,” or the inadequacy of conversation, but the snail experiences no such discomfort. His private world represents an attractive respite from the human world. However, one of the human characters in “Kew Gardens” does experience a strange and refreshing state of consciousness that resembles animal experience. An elderly woman, passing the flowers, sees them “as a sleeper waking from a heavy sleep sees a brass candlestick reflecting the light in an unfamiliar way.”⁸⁸ This defamiliarizing vision allows her to transcend (or, perhaps, descend beneath, as the snail descends beneath the leaf) the inanity of the conversation she is having: “[she] ceased even to pretend to listen to what the other woman was saying. She stood there letting the words fall over her, swaying the top part of her body slowly backwards and forwards, looking at the flowers.”⁸⁹ Sultzbach writes that in this moment the woman “becomes a kind of flower” as she experiences “an unconscious lull in her attachment with the human world, allowing her to hear the pattern of words, and to express the physicality of the flowers as she sways her stalk-like body with the breeze.”⁹⁰ It is a passive, nonlinguistic, yet meaningful moment and, I would add, it approximates the kind of primitivist experience that Woolf and the comparative psychologists associated with animals. People, Woolf implies, can feel this way too, and readers, projecting themselves into the perspectives of animal subjects, can temporarily access this kind of animal experience.

⁸⁶ Charles Darwin, *The Formation of Vegetable Mould Through the Action of Worms* (John Murray, 1881; repr. in *The Complete Work of Charles Darwin Online*, ed. John van Wyhe: www.darwin-online.org.uk), 91. Eileen Crist has explored Darwin’s representations of worm cognition and their implications for scientific studies of animals. See Eileen Crist, “The Inner Life of Earthworms: Darwin’s Argument and Its Implications,” in *The Cognitive Animal: Empirical and Theoretical Perspectives on Animal Cognition*, ed. Marc Bekoff, Colin Allen, and Gordon M. Burghardt (MIT Press, 2002): 3–8.

⁸⁷ Frederick Willaim Gamble, *The Animal World* (Williams and Norgate, 1911), 143; quoted in Sultzbach, *Ecocriticism in the Modernist Imagination*, 99.

⁸⁸ Woolf, *Complete Shorter Fiction*, 93.

⁸⁹ *Ibid.*

⁹⁰ Sultzbach, *Ecocriticism in the Modernist Imagination*, 100.

In 1933, (more than a decade after Woolf began to explore animal perspectives in “The Mark on the Wall” and “Kew Gardens,” she revisited the subject at greater length. Her book *Flush* presents a biography of Elizabeth Barrett Browning’s dog, indirectly narrating the poet’s courtship with and marriage to Robert Browning. *Flush* is many things to many critics: an experiment with the forms of biography and *Bildungsroman*, a feminist text, a challenge to fascism, an interrogation of anthropomorphism, and a mapping of interspecies connections.⁹¹ As several critics have noted, *Flush* also contains parallels with zoological studies past and present. Jeanne Dubino, for example, identifies in the book an exploration of Darwinian coevolution between humans and dogs.⁹² David Herman and Kendalyn Kendall-Morwick, meanwhile, claim that the representation of Flush’s world is similar to Uexküll’s representations of animal *Umwelten*.⁹³ And Craig Smith suggests that Woolf’s methods prefigure those of cognitive ethologists like Donald Griffin (who helped found the field in the 1970s) by engaging in a form of “critical anthropomorphism.”⁹⁴

⁹¹ David Herman’s “Modernist Life Writing and Nonhuman Lives: Ecologies of Experience in Virginia Woolf’s *Flush*,” *Modern Fiction Studies* 59.3 (2013): 547–68 argues that *Flush* is a “metabiographical text” that adapts the conventions of life writing to better represent connections across gender, class, and species. Karalyn Kendall-Morwick’s “Mongrel Fiction: Canine Bildung and the Feminist Critique of Anthropocentrism in Woolf’s *Flush*,” *Modern Fiction Studies* 60.3 (2014): 506–26 interprets the text as an alternative form of *Bildungsroman* that offers a more networked, multiplicitous account of character formation than the classical male *Bildungsroman* does. Kari Weil, in *Thinking Animals*, reads *Flush* as a feminist rebuttal to Freud’s *Civilization and its Discontents* that reclaims animal instincts and “begins to envision an alternative civilization to that of the fathers” (87–96, quote on 93). Anna Snaith’s “Of Fanciers, Footnotes, and Fascism: Virginia Woolf’s *Flush*,” *Modern Fiction Studies* 48.3 (2002): 614–36 analyzes the text’s politics surrounding hierarchy and finds that it reflects Woolf’s opposition to the rise of fascism. Dan Wylie’s “The Anthropomorphic Ethic: Fiction and the Animal Mind in Virginia Woolf’s *Flush* and Barbara Gowdy’s *The White Bone*,” *Interdisciplinary Studies in Literature and Environment* 9.2 (2002): 115–31 argues that Woolf’s style of anthropomorphism is an ethical attempt to build interspecies community. Jutta Ittner’s “Part Spaniel, Part Canine Puzzle: Anthropomorphism in Woolf’s *Flush* and Auster’s *Timbuktu*,” *Mosaic* 39.4 (2006): 181–96 sees Woolf’s text as taking part in a traditional form of anthropomorphism that subordinates animals to humans (as opposed to Auster’s text, which represents a “new anthropomorphism” that is non-hierarchical). And Derek Ryan’s “From Spaniel Club to Animalous Society: Virginia Woolf’s *Flush*,” in *Contradictory Woolf: Selected Papers from the Twenty-First Annual International Conference on Virginia Woolf*, ed. Derek Ryan and Stella Bolaki (Clemson University Digital Press, 2012): 158–65 turns to Donna Haraway’s notion of companion species to argue that *Flush* “journey[s] away from hierarchical, essentialist categorisations ... towards a more open, entangled zone of human and animal” (158).

⁹² Jeanne Dubino, “The Bispecies Environment, Coevolution, and *Flush*,” in *Contradictory Woolf: Selected Papers from the Twenty-First Annual International Conference on Virginia Woolf*, ed. Derek Ryan and Stella Bolaki (Clemson University Digital Press, 2012): 150–7.

⁹³ Herman, “Modernist Life Writing and Nonhuman Lives,” 559–60; Kendall-Morwick, “Mongrel Fiction,” 517–19.

⁹⁴ Craig Smith, “Across the Widest Gulf: Nonhuman Subjectivity in Virginia Woolf’s *Flush*,” *Twentieth Century Literature* 48.3 (2002): 348–61.

To this vein of criticism linking *Flush* and zoology, I would add that Woolf's understanding of animal subjectivity draws on the comparative psychology tradition. *Flush* is a philosophical animal constructing knowledge from his vantage point as a dog, placing Woolf in company with Morgan, Huxley, and Haldane as she explores the epistemological possibilities of imagining animal perspectives. But *Flush* also casts an ironic light on the primitivism that characterized comparative psychology and Woolf's own earlier representations of animal experience. Woolf's nephew and biographer Quentin Bell observed that "*Flush* is not so much a book by a dog lover as a book by someone who would love to be a dog."⁹⁵ But if Woolf wanted to be a dog, it is not because she saw *Flush*'s dog subjectivity as a peaceful retreat from human consciousness. Rather, it is because *Flush*'s perspective helps to satisfy an intellectual curiosity about other worlds, not unlike the curiosity that motivates Huxley and Haldane's essays.

Morgan argued that sense-experience "forms the foundation of the psychical life of animals," and *Flush* is no exception. Indeed, *Flush*'s representations of the dog's sensory life have elicited attention from many critics, including Kelly Sultzbach, Dan Wylie, David Herman, and Karalyn Kendall-Morwick.⁹⁶ Woolf's olfactory and tactile imagery is particularly vivid when she describes *Flush*'s puppyhood rambles through the countryside:

The cool globes of dew or rain broke in showers of iridescent spray about his nose; the earth, here hard, here soft, here hot, here cold, stung, teased and tickled the soft pads of his feet. Then what a variety of smells interwoven in subtlest combination thrilled his nostrils; strong smells of earth, sweet smells of flower; nameless smells of leaf and bramble; sour smells as they crossed the road; pungent smells as they entered bean-fields.⁹⁷

As Wylie points out, Woolf is engaging in a "process of translation" here, trying to render dog experience in human terms.⁹⁸ The passage includes enough visual cues – dew, flowers, bean-fields – to keep human readers oriented, but its most powerful appeals are to the senses of touch and smell, the dominant senses that help *Flush* navigate his morning walk. By imagining the feelings of dew beneath our feet and

⁹⁵ Quentin Bell, *Virginia Woolf: A Biography* (Harcourt, 1972), 410.

⁹⁶ Sultzbach, *Ecocriticism in the Modernist Imagination*, 109–12; Wylie, "The Anthropomorphic Ethic," 117–19; Herman, "Modernist Life Writing and Nonhuman Lives," 557; Kendall-Morwick, "Mongrel Fiction," 517–19.

⁹⁷ Virginia Woolf, *Flush* [1933], ed. Elizabeth Steele (Blackwell, 1999), 6.

⁹⁸ Wylie, "The Anthropomorphic Ethic," 118.

spray in our face, and the smells of dirt and flowers, readers can almost imagine what it is like to be a dog.

Flush's experience is mostly, but not fully, constituted by sensations like these. Like Haldane's philosophical bee, he is also a creature of instinct, and Woolf describes what the activation of these instincts feels like to Flush. When he notices the smell of game – “hare” or “fox” – it triggers inherited instincts which Woolf encodes as a kind of race-memory: “Off he flashed like a fish drawn in a rush through water further and further. He forgot his mistress; he forgot all human kind. He heard dark men cry ‘Span! Span!’ He heard whips crack. He raced; he rushed. At last he stopped bewildered; the incantation faded.”⁹⁹ Woolf suggests that Flush has inherited the memories of his ancient spaniel ancestors, a Lamarckian image of inheritance that few biologists in the 1930s would have given credence to. But she is aiming to represent the experience of an instinctive behavior, one that compels Flush to chase as if he were a “fish drawn ... through water.” Flush does not understand why he responds to the scent of game this way; his instincts overpower his reason.

When describing Flush's sensory life, Woolf frequently uses the technique of delayed decoding. A term invented by Ian Watt to describe one of Joseph Conrad's impressionist techniques, delayed decoding is a device in which an author or narrator relates the sense-impressions of an event before, or without, explaining the event's meaning.¹⁰⁰ The result is a defamiliarization of the scene and temporary disorientation of the reader. For example, in one episode Flush visits “mysterious arcades filmed with clouds and webs of tinted gauze. A million airs from China, from Arabia, wafted their frail incense into the remotest fibres of his senses. Swiftly over the counters flashed yards of gleaming silk; more darkly, more slowly rolled the ponderous bombazine. Scissors snipped, coins sparkled. Paper was folded; strings tied.”¹⁰¹ From the passage's imagery – the smell of incense, the sound of scissors, the gleam of money – readers infer that Elizabeth Barrett has taken Flush shopping. But the delayed decoding foregrounds not the event itself, but Flush's experience of it. Flush does not understand shopping in human terms, as an errand or a transaction. Instead, he surrenders himself to the sights, sounds, and smells of the shop.

⁹⁹ Woolf, *Flush*, 6.

¹⁰⁰ Watt, *Conrad in the Nineteenth Century*, 175–6.

¹⁰¹ Woolf, *Flush*, 15–17.

Flush's sense-experience leads him to create nonhuman forms of knowledge. Like the philosophical ant, bee, and barnacle, Flush has a dog-philosophy all his own: "[I]t was in the world of smell that Flush mostly lived. Love was chiefly smell; form and colour were smell; music and architecture, law, politics and science were smell. To him religion itself was smell."¹⁰² An empiricist dog, Flush develops abstract ideas from sensory perceptions. It is hard to believe that Woolf did not have in mind here Haldane's description of the intellectual dog in "Possible Worlds." Haldane writes that dogs have strong emotional responses to smells, and that "[i]f dogs had a religion they would certainly flood their holy buildings with that 'doggy' smell which is the material basis of their herd instincts."¹⁰³ He suspects that their emotional responses to smells would make dogs of a more religious than scientific temperament, but declares that if dogs did develop a science, they would "classify things according to their smells" rather than their sizes or appearances.¹⁰⁴ When Woolf writes that science, religion, law, and many other categories of understanding, for Flush, *are* smell, she approaches the same conclusions that Haldane does, with similar implications. If Flush's religion emerges from sensory perceptions, so must human religion, rather than being handed down from on high. And religious experience, then, is significant *as* experience, rather than as unveiling of truth.

Flush's olfactory philosophy, science, and religion also resonate with that of another modernist dog philosopher: the narrator of Kafka's "Investigations of a Dog." This story revolves around a scientifically minded canine who conducts "researches" into important matters of dog metaphysics, including the all-consuming question of where food comes from.¹⁰⁵ "Investigations" probably did not influence *Flush* – Kafka's story was written in 1922 but not published until 1931 and not translated into English until 1933.¹⁰⁶ Nevertheless, the stories' commonalities reveal how widespread the trope of the philosophical animal was in the 1920s and 1930s, and how closely bound to literary experimentation.

¹⁰² *Ibid.*, 67.

¹⁰³ Haldane, *Possible Worlds*, 267.

¹⁰⁴ *Ibid.*

¹⁰⁵ Franz Kafka, "Investigations of a Dog" [1931], transl. Willa and Edwin Muir, in *The Complete Stories*, by Franz Kafka (Schocken Books, 1971): 310–46.

¹⁰⁶ Richard T. Gray, Ruth V. Gross, Rolf J. Goebel, and Clayton Koelb, *A Franz Kafka Encyclopedia* (Greenwood Press, 2005), 94. The first English translation was by Willa and Edwin Muir, as part of *The Great Wall of China* (1933). Woolf reports being "finished" with *Flush* on January 15th, 1933 (*A Writer's Diary*, 187) and does not mention ever reading Kafka, so influence seems unlikely.

The juxtaposition also illuminates what is unique about *Flush*. Its representations of animal consciousness are less enigmatically allegorical – which is to say less Kafkaesque – than those of “Investigations of a Dog.” They are closer to the “realistic animal stories” that Allan Burns has described as “literary extensions of natural history” than to the fantastic and fabulistic world of Kafka’s animal tales.¹⁰⁷ *Flush*’s descriptions of animal consciousness, like those of comparative psychology, are grounded in the mundane everyday life of dogs.

Woolf builds *Flush*’s intellectual life on a foundation of sensations strung together through associations, a paradigm that comparative psychologists used to explain how animals learn. Morgan, drawing on the associationist psychology of J. S. Mill and Alexander Bain, claimed that association of ideas in animals “is the means – the sole means – by which experience is made available for the guidance of action.”¹⁰⁸ In other words, he thought that it was through association of ideas, and not through abstract logic or reason, that animals learned. Woolf’s account of *Flush*’s learning process echoes Morgan’s associationist claims. When Elizabeth Barrett takes *Flush* for walks in Regent’s Park, he tries to run free as he used to in the countryside, but is hindered by his leash. Soon, *Flush* learns the law of the park: “Setting one thing beside another, he had arrived at a conclusion. Where there are flower-beds there are asphalt paths; where there are flower-beds and asphalt paths, there are men in shiny top-hats; where there are flower-beds and asphalt paths and men in shiny top-hats, dogs must be led on chains.”¹⁰⁹ Woolf uses the term “conclusion” to name *Flush*’s newfound knowledge, but it is a conclusion reached not by logical thinking, but instead by “setting one thing beside another,” or associating things.

Flush’s representation of animal subjectivity often echoes comparative psychological ideas, but it diverges from comparative psychology in one important way. Woolf satirizes the primitivism of psychologists like Thorndike and of her own earlier writing about animal subjectivity in “The Mark on the Wall” and “Kew Gardens.” *Flush*’s life may be rich in sensations, but it does not always resemble the passive pleasures of floating in water, free of human cares:

[T]hough it would be pleasant for the biographer to infer that *Flush*’s life in late middle age was an orgy of pleasure transcending all description; to maintain that while the baby day by day picked up a new word and thus

¹⁰⁷ Allan Burns, “Extensions of Vision: The Representation of Nonhuman Points of View,” *Papers on Language and Literature* 38.4 (2002): 339–50, quote on 350.

¹⁰⁸ Morgan, *Introduction to Comparative Psychology*, 90.

¹⁰⁹ Woolf, *Flush*, 17–18.

removed sensation a little further beyond reach, Flush was fated to remain for ever in a Paradise where essences exist in their utmost purity, and the naked soul of things presses on the naked nerve – it would not be true. Flush lived in no such Paradise. The spirit, ranging from star to star, the bird whose furthest flight over polar snows or tropical forests never brings it within sight of human houses and their curling wood-smoke, may, for anything we know, enjoy such immunity, such integrity of bliss. But Flush had lain upon human knees and heard men's voices. His flesh was veined with human passions; he knew all grades of jealousy, anger and despair.¹¹⁰

Here Woolf offers one of the clearest articulations of this form of primitivism, but it is one laced with irony, and one that the biographer-narrator comes to reject. Flush's life is not all pleasure and purity and sensations unmediated by ideology – “the naked soul of things press[ing] on the naked nerve.” Karalyn Kendall-Morwick identifies in this passage a satire of “the anti-humanist aesthetics of [D. H.] Lawrence” and other modernists because it refuses to idealize Flush's animal being.¹¹¹ It is no prelapsarian paradise to be a dog. Perhaps it is because dogs live with humans that they are barred from this primitivist Utopia, the biographer-narrator suggests; perhaps the bird that never encounters humans does live a life of peaceful purity. But for all the animals of our acquaintance, the primitivist fantasy is just that – a fantasy.

Woolf also gently lampoons the sexual primitivism of fellow modernists like Lawrence and Paul Gauguin when she describes Flush's sex life. When the Brownings marry and move to Italy, Flush begins a new life as a free-range dog, and he mates indiscriminately with the other dogs he comes across, satisfying the urge whenever it strikes him with no signs of inhibition. Woolf's narrator says, “Flush knew what men can never know – love pure, love simple, love entire; love that brings no train of care in its wake; that has no shame; no remorse; that is here, that is gone, as the bee on the flower is here and gone.”¹¹² In its euphemistic language, the description is likely mocking the Victorian biographer-narrator through whom Woolf voices the entire book. This figure can say no more than that Flush “embraced” other dogs, that he “followed the horn wherever the horn blew and the wind wafted it.”¹¹³ Yet Victorian prudery is clearly not Woolf's only target. The idealization of animal sexuality, the anaphora (“love pure, love simple, love entire,” etc.), the piling on

¹¹⁰ Ibid., 68.

¹¹¹ Kendall-Morwick, “Mongrel Fiction,” 513.

¹¹² Woolf, *Flush*, 60.

¹¹³ Ibid., 61.

of subordinate clauses – all this suggests a more contemporary object of parody: Lawrence. Consider these lines from “Tortoise Shout,” a Lawrence poem about tortoise sex: “Sex, which breaks us into voice, sets us calling across the deeps, calling, calling for the complement, / Singing, and calling, and singing again, being answered, having found.”¹¹⁴ *Flush*'s description of dog sex is stylistically similar, but where Lawrence's tone is earnest, Woolf's is wry.

Primitivism, *Flush* implies, is less a theory of how animals really live than a fantasy of how people would like to live. Like other modes of representing animals, from sentimental anthropomorphism to rigid mechanomorphism (to borrow a phrase from Eileen Crist), primitivism projects human values onto animals. As Bertrand Russell once joked,

It seem[s] that animals always behave in a manner showing the rightness of the philosophy entertained by the man who observes them ... In the seventeenth century, animals were ferocious, but under the influence of Rousseau they began to exemplify the cult of the Noble Savage ... Throughout the reign of Queen Victoria all apes were virtuous monogamists, but during the dissolute 'twenties their morals underwent a disastrous deterioration.¹¹⁵

We can ask, of any representation of animal subjectivity, how far it is true to the animal itself, and how far it is a projection of human ideology. Woolf and Russell both use playful humor to foreground this question, reminding us that if animal experience looks like an alluring respite from human anxieties, it may be because people want to see it that way. “It would be pleasant,” to borrow the words of *Flush*'s narrator, but “it would not be true.”

This push and pull – is the dog's perspective a manifestation of empathic epistemology or a screen on which to project human desires? – is at the heart of *Flush*. The question comes to the fore most obviously in the novel's representation of Barrett Browning's relationship with Flush. Though the two form a close bond, “there were vast gaps in their understanding. Sometimes they would lie and stare at each other in blank bewilderment.”¹¹⁶ It is not only Barrett Browning who sometimes fails to penetrate the mystery of Flush's mind; the narrator does as well. As Jutta Ittner and Dan Wylie have pointed out, the third-person, apparently omniscient narrator of *Flush* is not always omniscient when it comes

¹¹⁴ Lawrence, *Complete Poems*, 366, lines 81–2.

¹¹⁵ Russell, *My Philosophical Development*, 95–6.

¹¹⁶ Woolf, *Flush*, 21.

to Flush's mind. The narration is at times empathically canine, at other times ironically detached.¹¹⁷ Adopting the voice of the biographer, Woolf is in a position to represent the normally inaccessible consciousness of the dog, offering insight into those aspects of Flush's subjective life that even his closest companions could not understand. Yet the biographer-narrator confronts the limitations of human constructs in understanding and describing the full extent of Flush's experience. "Not even Mr. Swinburne could have said what the smell of Wimpole Street meant to Flush on a hot afternoon in June," Woolf writes; even the most sensuous of poets cannot find words for the sensations a dog feels.¹¹⁸ The story reaches, in Wylie's words, "a necessary failure of the imagination to *be* Flush."¹¹⁹

Flush is thus a failure in the same sense that comparative psychology was a failure. As Washburn marveled, "how great is the mystery which looks out of the eyes of a dog," an irresolvable mystery. Or, as Morgan lamented, "the pity of it is that we cannot think of [animal minds] in any other terms than those of human consciousness. The only world of constructs that we know is the world constructed by man."¹²⁰ But it is not just that the project of knowing an animal mind will necessarily end in failure; it is also that such a failed project is necessary. It is necessary epistemologically, as Russell, Huxley, and Haldane showed, to put human knowledge in its proper place, not on a pedestal but within a wider system of perspectives. And it is necessary ethically as an act of empathy that leads us to respect animal others. Not only to respect them, but also to think of better ways to improve their lots, whether they are house dogs like Flush or wild animals like "the bird whose furthest flight over polar snows or tropical forests never brings it within sight of human houses." To recognize animals as subjects, as Woolf and her intellectual forerunners do, is to enter some kind of ethical relationship with them; to imagine animals' perspectives is to ask what constitutes, *for them*, pain or pleasure, a poor life or a rich one.

4.5 The Afterlife of Comparative Psychology

The aspects of comparative psychology that made it most relevant to philosophy and literature – its subjectivism, uncertainty, and closeness to fiction – also made it unscientific in the eyes of opponents. As historians

¹¹⁷ Ittner, "Part Spaniel, Part Canine Puzzle," 185–6; Wylie, "The Anthropomorphic Ethic," 121–2.

¹¹⁸ Woolf, *Flush*, 67.

¹¹⁹ Wylie, "The Anthropomorphic Ethic," 118.

¹²⁰ Morgan, *Animal Life and Intelligence*, 335.

like Robert Boakes have shown, psychology had to root out anecdotes, introspection, and other soft methods in favor of experimentation, quantitative data, and objectivity in order to become a professional science.¹²¹ But even though midcentury science ruled questions about animals' subjective experiences inadmissible, people never lost interest in animal subjectivity. Comparative psychology's legacy lives on in two contemporary fields of intellectual inquiry: animal studies and cognitive ethology.

Animal studies continues to build on the interest in animal perspectives that Russell, Huxley, Haldane, and Woolf shared. In "The Animal That Therefore I Am," Jacques Derrida's exploration of the challenges animals pose to Western philosophy pivots on an animal's point of view – that of his cat. This cat, he writes, "can allow itself to be looked at, no doubt, but also – something that philosophy perhaps forgets, perhaps being this calculated forgetting itself – it can look at me. It has its point of view regarding me."¹²² It is this recognition of the cat as a someone who looks back at him that spurs Derrida to rethink animals' role in philosophy. Leading animal studies scholar Cary Wolfe, meanwhile, makes animal perspectives part of his posthumanist philosophy. He argues that thinking about animals' sensory lives allows us to reconfigure vision itself, understanding seeing as not a humanist process of knowledge and mastery, but merely another function of the animal sensorium.¹²³ And a recent issue of *Modern Fiction Studies* titled "Animal Worlds in Modern Fiction" testifies to the growing importance of animal perspectives within literary studies.¹²⁴ The questions that launched comparative psychology into the intellectual world of modernism continue to trail animal studies today.

Some scientists, meanwhile, have also returned to the question of what we can know about animals' subjective experiences. In recent years, a new brand of subjectivism has come back into fashion: cognitive ethology. A field pioneered by Donald R. Griffin in the 1970s, cognitive ethology studies the relationship between animal behavior and consciousness. Marc Bekoff, for example, combines scientific method with fiction and empathic epistemology, writing that in his research, "I become coyote, I become penguin. I try to step into animals' sensory and locomotor worlds to discover what it might be like to be a given individual, how they sense their surroundings, and how they behave and move about in

¹²¹ Boakes, *From Darwin to Behaviourism*.

¹²² Derrida, "The Animal That Therefore I Am," 380.

¹²³ Wolfe, *What is Posthumanism?*, 127–42.

¹²⁴ The issue is *Modern Fiction Studies* 60.3 (Fall 2014), edited by David Herman.

certain situations.”¹²⁵ Cognitive ethologists imagine animal perspectives just as the major figures in this chapter did, and they are equipped with more robust scientific evidence for their claims about animal cognition than was available in the 1920s. They even continue to use the trope of the philosophical animal, a trope that seems to become more and more literal as time goes on. For example, some cognitive ethologists debate whether nonhuman animals have a “theory of mind,” or an ability to attribute mental states to others.¹²⁶ Not all scientists agree that cognitive ethology’s methods are sufficiently rigorous, but the field’s growth reflects a return of the kind of subjectivism that comparative psychologists and thinkers across disciplines embraced at the turn of the twentieth century. It is a willingness to make space for speculation, empathy, and even fiction within scientific thinking. When it comes to understanding animal minds today, the modernist imagination shared by Woolf, Russell, Huxley, Haldane, Washburn, Morgan, and many others is still with us.

¹²⁵ Marc Bekoff, *Minding Animals: Awareness, Emotions, and Heart* (Oxford University Press, 2002), 11.

¹²⁶ See, for example, David Premack and Guy Woodruff, “Does the Chimpanzee Have a Theory of Mind?” *Behavioral and Brain Sciences* 1.4 (1978): 515–26; Joseph Call and Michael Tomasello, “Does the Chimpanzee Have a Theory of Mind? 30 Years Later,” *Trends in Cognitive Sciences* 12.5 (2008): 187–92; and Alain Morin, “What Are Animals Conscious Of?” in *Experiencing Animal Minds: An Anthology of Animal-Human Encounters*, ed. Julie A. Smith and Robert W. Mitchell (Columbia University Press, 2012): 246–60.