Walker Percy: Pathologist, Philosopher, and Novelist

with Leslie Marsh, "Philosopher of Precision and Soul: Introducing Walker Percy"; Elizabeth Corey, "Life on the Island"; Stacey E. Ake, "Scientists in the Cosmos: An Existential Approach to the Debate between Science and Religion"; John D. Sykes, Jr., "Walker Percy, Language, and Homo singularis"; and Benjamin B. Alexander, "Confessions of a Late-Blooming, 'Miseducated' Philosopher of Science."

WALKER PERCY, LANGUAGE, AND HOMO SINGULARIS

by John D. Sykes, Jr.

Abstract. The novelist Walker Percy argued that modern science has a tremendous blind spot in its view of human nature. Unlike purely physical phenomena, which can be explained by the interaction of dyadic relationships, human beings must also be understood in terms of triadic relationships brought into being by symbolic language. The self brought into being by symbolic language is nonmaterial but real, and operates by different "laws" than those that govern dyadic relations. In making this case, Percy drew a sharp line between human and nonhuman language, a line that more recent developments in science has challenged. However, Percy's central point, that the agent of symbolic language cannot be understood within a materialist framework, remains valid.

Keywords: behaviorism; existentialism; human uniqueness; linguistics; materialism; mind/body dualism; nonhuman language; Walker Percy; selfhood; semiotics

Walker Percy's serious interest in linguistics and philosophy of language predated his debut as a novelist in 1960. Indeed, he half-seriously remarked that seeing his name in print in philosophy journals got him hooked on writing and set him upon a writing career (Lawson and Kramer 1985, 93). He continued to write essays on the topic of language until the end of his life in 1990, collecting a number of them in a volume called *The Message in the Bottle* in 1975. He told his friend Shelby Foote that his essay "A Theory of Language" was "the most important I'll ever write" (Tolson 1997, 184). In his final major public utterance, the National Endowment for the Humanities Jefferson Lecture of 1989, he returns to

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the theme in an address titled "The Fateful Rift: The San Andreas Fault in the Modern Mind" (1991, 263–91). Thus, his concern to bring to public view what he considered to be the tremendous implications of the intersection of the physical sciences and the human sciences in linguistics is the single greatest unifying thread in his work. Percy hoped to nudge science itself toward a paradigm shift. Yet except for physicians (Elliott and Lantos 1999), intellectuals with a scientific bent have all but ignored him. Among philosophers, only Thomas Nagel (1975) and Walter Michaels (1975) gave The Message in the Bottle astute attention in reviews. Most of those who heard the Jefferson Lecture seem to have regarded it as did Percy admirer Walter Isaacson (n.d.): another plea for scientists and humanists to appreciate each other. What went wrong? In this article, I will explore one area in which Percy's claims about language have not been borne out. Percy clearly believed that full language use—what might be called symbolic language—was unique to human beings. Although scientists still argue this point, the preponderance of evidence seems to be against it. Differences between human and nonhuman language use seem to be matters of degree rather than kind. Yet on a deeper matter of more importance to Percy what we might call the metaphysical status of selfhood—the sciences may simply not yet have caught up to Percy. I will argue that despite what he sometimes implies, the claim that human beings are unique in their capacity for full language use is not necessary to his argument for a metaphysical self.

Language as the Means to a Symbolic World

In his attacks on what he believed to be the reigning reductionist account of language held by most scientists, Percy fastened upon a remarkable feature of human language use that such accounts cannot explain: the power to make a symbolic world. He returns to two favorite examples. The first concerns the difference between the way a pet dog reacts to hearing the word "ball" and the way a native human speaker of English would likely respond. The dog immediately looks for the object; the human asks, "What of it?" (1975, 153). This difference Percy takes to be indicative of two levels of language use, one of which is common to human and nonhuman animals, and the other of which seems to be unique to humans. The difference is this: for the dog, the word is a signal that indicates a thing; the relationship between word and thing is what Percy, following his favorite semiotician Charles Peirce, calls "dyadic." By contrast, for the human—perhaps a visitor who is unprepared for the utterance—the word "ball" is part of a symbolic universe. He or she immediately tries to place the word in a context, which means locating it in relation to other symbols that form a unified whole. "Ball" by itself is naked and isolated, so to speak, and thus lacks much of the meaning we typically assign to it. These other levels of meaning the ones that require more than the connection between vocable and

object—require what Peirce called a "triadic" relationship. For a speaker of English, "ball" is more than a signal; it is a kind of assertion. The thing IS "ball," and the word itself now takes on a new life by virtue of its connection to other words and to the community of speakers who make the "assertion" implicit in naming. For the dog, the word is a stimulus that produces a response, a two-part relationship. For the human speaker, a three-part relationship is required among word, speaking/hearing community, and the symbolic world created by language.

Percy draws out the human, triadic side of language use through the famous example of the 8-year-old blind and deaf Helen Keller discovering the "name" of water. Before the breakthrough at the well pump with Anne Sullivan, Helen knew signs that functioned for her just as "ball" does for a dog. She could spell out in her teacher's hand the word for what she wanted and be rewarded in some way. But when with the help of Sullivan she discovered that water has a name, she entered into an entirely different relationship with words. In *The Story of My Life* (2004) she records that "I knew then that 'w-a-t-e-r' meant the wonderful cool something that was flowing over my hand. That living word awakened my soul, gave it light, hope, joy, set it free! ... I left the well-house eager to learn. Everything had a name, and each name gave birth to a new thought. As we returned to the house every object which I touched seemed to quiver with life" (quoted in Percy 1975, 35). She hungered to know the name of everything around her; her vocabulary increased exponentially, as does that of a typical 2-year-old. Reflecting upon the effect this passage had upon him, Percy observes, "If there was a bifurcation in our knowledge of ourselves and our peculiar and most characteristically human activity, with a terra incognita in between concealing the mystery, surely I was straddling it and looking straight down at it. ... Eight-year-old Helen made her breakthrough from the good responding animal which behaviorists study so successfully to the strange name-giving and sentence-uttering creature who begins by naming shoes and ships and sealing wax, and later ... writes La sua voluntade e nostra pace" (35). This extending of the symbolic network made possible by language to the entire reach of one's awareness, without regard to one's lower level biological needs, is an activity of triadic, or fully symbolic language. Percy maintains that nonhuman animals have environments, while humans also have a world. To illustrate the difference, he points to the analogy of a map. Even a bounded map implies that it could be extended to all of space. Explorers' maps label new lands "unknown territory," thus asserting that even the unknown has a name and therefore a place within the symbolic world of the map and of human understanding (1983, 100). An environment, by contrast, is simply what happens to surround one. The dog is responding to both the word "ball" and the object it may or may not find as items in its environment, with which it is induced to interact. Hearing the word, it looks for the object. The human visitor immediately tries to place the word (and thereby the object) in a world. In response to the utterance she may well reply, "What of it?" Hearing the word, she seeks to place it in a context.

Percy illustrates the sliding scale between dyadic and triadic in his final novel, The Thanatos Syndrome (1987). A small group of well-meaning but devious doctors and scientists has surreptitiously initiated social engineering by adding heavy sodium to the water supply. Ignorant of the plot, the psychiatrist Tom More notices that his patients are losing symptoms they have long sought treatment for, yet they have developed strange new behaviors. They are no longer anxious or depressed or self-destructive, but they now have low impulse control and, in the manner of the dog who hears "ball," no sense of context. In the middle of a conversation about relatives, More will suddenly ask the date of Easter two years hence, and the patient will answer correctly without batting an eye. Heavy doses of the chemical also reduce vocabulary and simplify syntax, and at the same time appetite and overt sexual display come to the fore. As the drugged humans become more pongoid in their behavior, they lose their grip on the symbolic world enabled by language while also growing less anxious. This points to the second major consequence Percy traces to symbolic language: a sense of self.

THE NONMATERIAL SELF AS A SCIENTIFIC HYPOTHESIS

Essential to triadic language is the assertion implicit in the simplest act of naming: "This is a ball." Assertion requires an asserter. For Percy, this agent necessary to triadic language events is "a minimal designation of that which couples a name and a thing, subject and predicate, links them by the relation which we mean by the peculiar little word 'is'" (1991, 286–87). And, he significantly adds, "By whatever name one chooses to call it . . . the third element is not material" (287). He goes on, "A material substance cannot name or assert a proposition. The initiator of a speech act is an act-or, that is, an agent. The agent is not material" (287). To switch to Saussure's terminology, signified and signifier can only be held together within the sign by what we might call a linguistic agent. And for Percy, this necessary agency required by naming is both a challenge to naturalism (of which more later) and the key to any full understanding of human nature. Scientific anthropologies fail insofar as they cannot account for this self.

Percy points to the ubiquity of anxiety in modern societies and science's failure to ameliorate it as evidence of this profound shortcoming. Every Percy novel deals to some degree with crises faced by characters whose psychological and spiritual difficulties have been misdiagnosed—or simply missed—by scientific medicine. Kate Cutrer in *The Moviegoer* (1961) and Will Barrett of *The Last Gentleman* (1966) and *The Second Coming* (1980) find their ways forward only after abandoning their

psychiatrists. Tom More of *Love in the Ruins* (1971) and *The Thanatos Syndrome* (1987) is both a psychiatrist and a patient who runs afoul of the medical-scientific establishment by promoting theories based precisely on the premise Percy defended: the existence of a nonmaterial yet very real human self. Percy's killer-protagonist, Lance Lamar of *Lancelot* (1977) confesses to a psychiatrist-priest who also represents an attempt to address the crucial aspect of human being overlooked by science. In each of these cases, the patient or renegade doctor runs up against the spectacular inadequacy of regarding the human being as nothing more than an organism in an environment. Science, insofar as it recognizes only dyadic relationships, distorts the human subject. In Percy's hands, this misunderstanding is often comic.

In *Love in the Ruins*, Tom More treats a couple named Ted and Tonya for sexual dysfunction. The local sex clinic, run on behavioristic principles, has done them no good. Despite his sound physical condition, impeccable technique, intimacy training, and time in a laboratory under professional observation, Ted cannot make love to his wife, as he very much wishes to do. Treating him as an organism with biological needs has yielded nothing. On a hunch, Tom More sends Ted home on a dangerous route through the swamps, an arduous adrenaline-producing journey that has the desired therapeutic result. Upon his return, Ted makes lusty love to Tonya. Dr. More's successful prescription proceeded from the assumption that Ted's difficulty sprang not from organic malfunction but from a form of ennui, an affliction of the same self that serves as the agent of linguistic assertion.

From Percy's point of view, the self implicit in assertion is by its very nature unavailable to observation, including its own. It is not a thing among things. It is the perspective from which "seeing" takes place, and for that reason it is invisible. Thus, the self never masters itself and is always a mystery to itself. Percy once again finds evidence of this phenomenon in human development. At about age four, children suddenly become selfconscious—less spontaneous, more guarded in their responses, more aware of their appearance. If age two is the period of symbolic world-building characterized by an explosion of naming and vocabulary building, age four is the age of discovering one has a self (Percy 1983, 106–08). There follows a lifelong quest to catch up with the self, so to speak, by objectifying it (e.g., through the creation of an image or style). But according to Percy's account, these attempts are doomed. The naught at the core of the asserting subject is never filled, existing always as a kind of freedom that is at the same time relational and thus constrained. Since the self is doomed never to "find" or finalize itself, it is caught in an inevitable state of anxiety. This basic fact of human existence—that we are selves living in a state of anxiety—is one current science cannot account for. And the root of the conceptual problem is the refusal of science to acknowledge the reality of the nonmaterial self involved in triadic (symbolic) transactions. So long as

mind is subsumed under matter, then an affliction such as anxiety, which springs from the nature of the self as the nonobjectifiable and immaterial subject of assertion, is not only outside the purview of dyadic science, it seems to be a kind of phantom disease—a trick of misfiring neurons.

To ears familiar with existentialists' arguments, my summary of Percy's position on the freedom of the self will sound familiar. And Percy is indeed indebted to Kierkegaard and Sartre and Marcel and Heidegger. But Percy insists that he is not pointing to a divide between science and the humanities, but rather to a point of intersection to which science should attend. He states bluntly, "Peirce's insistence on both the reality and the nonmateriality of the third element—whatever one chooses to call it, interpretant, mind, coupler—is of critical importance to natural science because its claim to reality is grounded not in this or that theology or metaphysic but on empirical observation and the necessities of scientific logic" (1983, 287). Toward that end, he directs attention not only to linguistics and semiotics as sciences of language, but also to empirical studies done with nonhuman animals. It is to his analysis of such studies that I now turn.

DO NONHUMAN ANIMALS EXHIBIT SYMBOLIC LANGUAGE USE?

Percy found particularly revealing the controversy surrounding the language experiments with chimpanzees conducted by the Gardners (Gardner and Gardner 1971) with Washoe and by Herbert Terrace (1983) with Nim Chimpsky. Allen and Beatrix Gardner began their study in 1967. They were aided by graduate student Roger Fouts, who eventually assumed full responsibility for Washoe when he had completed his degree and the Gardners moved on to other projects. Working from the premise that chimps lacked the physiological apparatus to vocalize an oral language, the Gardner team attempted to teach Washoe American sign language (ASL). The results of the study appeared to confirm that Washoe had indeed learned a language. She registered use of a total of some 160 signs, verified by the observation of multiple observers over an extended period (Anderson 2004, 269). She learned these signs by watching and interacting with her human companions rather than through the performance-and-reward sequence used in behaviorist conditioning models. She used signs in combination and spontaneously. For these and other reasons, it appeared that a good case could be made that Washoe had learned a human language.

However, when Terrace attempted to duplicate Washoe's success with Nim, he came to a different conclusion. Although Nim also mastered a number of signs, Terrace believed that he was not using the signs as symbols in a language-created world, but rather as responses to subtle cues trainers were giving unawares in what is often called the Clever Hans effect. Analysis of the Washoe study led Terrace to conclude that Washoe's

results could be explained in a similar way (1983, 32-40). There is more to be said on this subject, which Percy last commented upon in 1989. But before taking up that story, it is important to note Percy's framing of both experiments. He sees the "heroic attempts ... by psychologists and primatologists to teach language to primates other than Homo sapiens" as evidence that many scientists find the notion of human uniqueness "offensive" (1991, 281). The simpler, and to Percy, compelling, hypothesis that full language use is a species-specific trait unique to humans is set aside because of what amounts to anti-metaphysical bias against any notion of mind or soul or self: scientists are afraid to abandon their materialism even when empirical observation demands it. In effect, Percy is actually making two claims. The first is that full language use is unique to humans (speciesspecific), and the second is that science is held back by anti-metaphysical bias. The first claim—that of human uniqueness—remains disputed, but evidence and arguments seem to be mounting against it, as indicated in Roger Fouts's defense of the Washoe studies.

Roger Fouts's *Next of Kin* (1997) gives an extensive account of Washoe's language over a period of years during and after the Gardners' original study. In addition to rebutting Terrace's criticisms, Fouts provides examples of Washoe and her chimp companions engaging in several of the activities Percy offers as examples of symbolic language activity: lying, cursing, and making jokes. Fouts calls attention to a number of academic studies that rejected Terrace's indictment of the Washoe studies (Van Cantfort and Rimpau 1982; Skokoe 1983). The heart of his rebuttal is twofold: Terrace's criticisms rest upon a false analogy between Washoe and Nim, and Terrace's direct attacks on the details of the Washoe story rely on distortions of the record. The second item is more quickly summarized.

According to Fouts, Terrace misread film of Washoe's tests because he misunderstands the nature of signed languages such as ASL; gestures are fluid and frequently supplemented with facial expressions and body movement. Isolating them frame by frame, as Terrace did, greatly distorts them. Further, Terrace seems not to have been aware than it is normal for human signers to overlap in conversation, one conversant finishing as a partner begins. What Terrace took as a failure to observe turn-taking in conversation was actually quite typical of deaf humans (Fouts 1997, 276). In questioning the spontaneity of Washoe's signing, Terrace unfairly dismissed the double-blind protocol the Gardners and Fouts employed to avoid the Clever Hans effect by which the test administrator unknowingly gives cues to the subject.

The more important point Fouts makes against Terrace is that Nim was trained and tested in an entirely different way than was Washoe. Terrace treated Nim in much the same way that Terrace's teacher B. F. Skinner conditioned pigeons. Nim was taken daily to a plain, windowless room in which he was rewarded only after performing the sign his trainer wanted

him to make. This technique led quite naturally to signs being produced only as a conditioned response. Washoe, by contrast, was socialized at a young age into a human "family" in which she learned signs by observation, as would a human child. Nim, indeed, used his signs no differently than a conditioned pigeon uses a peck on a lever to get a food pellet. When Terrace noticed this, he assumed Washoe used language in the same manner as Nim did, and ignored evidence to the contrary.

Perhaps the most compelling example of Washoe surpassing Nim in observed language use has to do with language as social medium. Washoe and the four chimps with whom she was eventually settled began to sign among themselves. Washoe's adopted son Loulis learned to sign from her (Fouts 1997, 243ff). In a similar vein, Fouts reports incidents of chimps lying, making jokes, and signing to themselves—exactly the kinds of human activity Percy attributes to symbolic language use. Although these latter observations did not occur in the context of a designed experiment, they were made by scientifically trained observers and certainly appear to be in line with the results of the carefully designed and rigorously implemented studies carried out during the Nevada Washoe Project. Washoe's mastery of signs was verified in double-blind experiments carried out over years. She showed not only object recognition but the ability to generalize—to place objects in conceptual categories. According to the Gardners and Fouts, she also revealed rudimentary syntax, the ability to convey meaning through sign order (see especially Fouts 1997, 99-103). Indeed, it is difficult to read narratives such as Fouts's without feeling as he does that the signing chimps and their human companions share a symbolic universe, rudimentary though it may be. And this conviction is most strongly supported by the context of social interaction Fouts increasingly supplied for the chimps, rather than by the behaviorist-style experiments Terrace set up for Nim. In other words, the range of Washoe's language becomes more apparent when it is assumed to be part of a social or intersubjective process. Ironically, Percy's own model of symbolic language is intersubjective ("triadic" in the Peircean term). But when it comes to the primate studies, Percy, like Terrace, seems not to have appreciated that the research model itself must reflect the assumption of sociality or intersubjectivity if it is to capture an intersubjective phenomenon.

There is certainly more to be said on the topic of intersubjectivity as a necessary quality of symbolic language. However, it should be noted that arguments such as those of Fouts have not persuaded the scientific community as a whole, in particular professional linguists. The title of a very astute book by Stephen R. Anderson, *Doctor Dolittle's Delusion: Animals and the Uniqueness of Human Language* (2004) suggests a phenomenon similar to that of the Clever Hans effect may be at work in accounts such as that of Fouts. The sympathy between researcher and subject becomes so strong in cases where the human and nonhuman animal are socially connected that

it becomes difficult for the researcher not to anthropomorphize, however subtly and unintentionally. A linguist, Anderson critically examines the data from studies associated with the apes Washoe, Nim, Chantek, Koko, and Kanzi and comes to much more modest conclusions than does Fouts.

Anderson claims that full-fledged human language has at least four elements: lexicon, phonology, syntax, and semantics (2004, 294-95). There can be no doubt that these apes have command of a collection of signs, and that these signs meet the test of noniconicity (the signs are not direct representations of what they represent in the world). In several cases, the sign set seems to satisfy the condition of "displacement," given that the signs are used to refer to things not present in the environment. But "noninstrumentality" is less certain. In the vast majority of cases, the ape utterances are aimed at getting something. Still, there are at least incidental observations of Washoe and her chimp companions signing to themselves, and of Kanzi pressing the lexigram for "grass" or "rock" on his keyboard and then placing the object on the keyboard. In sum, the apes of these studies do seem to have a lexicon. Anderson is less convinced about phonology. Phonology, the combinatorial system of sounds or gesture components found in natural human languages, applies only to the signing apes, since the lexigram system uses symbols that are unanalyzable wholes. In the cases of the apes who learned ASL signs, Anderson notes that "the animals in these experiments show no awareness of the fact that in a language such as ASL certain handshapes are possible and others are not" (295). Although they are able to use the signs they have been taught, their signing is not precise. Nor do they seem to recognize the difference between a pointing and flat handshape such as that which would distinguish "he" from "his," for example. Anderson concludes, "we find no evidence of any combinatory system underlying the expression system of any of the apes" (295).

Most importantly for Anderson, the apes show no proven grasp of syntax. Despite evidence provided by Fouts, the Gardners, Terrace, and Savage-Rumbaugh (who works with Kanzi and other bonobos), Anderson argues that the studies at best show a very rudimentary "grammar" that can be explained without recourse to the consistent, rule-based syntax demonstrated by human children at a young age. For example, the apes may have learned to make "word chains" (278), in which they know certain signs can follow others, without really following a rule such as a grammatical category for what comes next. With the apes' relatively small vocabulary of perhaps a couple of hundred signs, this explanation becomes more plausible though not necessarily persuasive.

Anderson sometimes seems overly ingenious in his skepticism, and the centrality of syntax in his understanding of language may reflect the legacy of Chomsky's universal grammar. Perhaps Fouts would count Anderson with linguists who use a checklist definition of language "that would presumably exclude all nonhuman communication" in order to keep "all

nonhumans out of the 'language club'" (106). However, Anderson's final word on the ape language studies is reasonable: "Apes reach a plateau as far as complexity of expression is concerned. No matter how extensive the training, no animal is going to produce long, complex sentences. If we want to know whether an ape can develop an ability to use human language that is comparable to that of even a grade-school child, the answer is a definite no" (294). Anderson's caveat is in line with Percy's concern: No matter how remarkable and unexpected the linguistic abilities of nonhuman animals, the similarities between human and nonhuman animals should not blind us to what is distinctive, and ultimately most important, about human nature. In the current state of knowledge, recognizing this distinction may well require modifying Percy's approach. One way to do so is to change metaphors.

A LINE OR A SCALE?

Percy's rhetoric suggests an approach that can be usefully labeled "drawing a line" between human and nonhuman. Percy clearly intends such a sharp demarcation in calling attention to the difference between the pre- and post—water pump Helen Keller. He is drawn to Keller's account of the event precisely because she presents such a dramatic and instantaneous transition from "responding animal" to "strange name-giving and sentence-uttering creature" (see above). But as animal researchers and philosophers have increasingly pointed out in the 25 years since Percy's death, drawing such a sharp line obscures important aspects of nonhuman and human nature where both cognition and language use are concerned. On the science side, Fouts is joined not only by ape language researchers such as Emily S. Savage-Rumbaugh (1986) and Lyn Miles (1983) and Penny Patterson, but also by animal behaviorists such as Con Slobodchikoff (2012) and dolphin specialist Louis Herman (1980) in urging that nonhuman animal communication be seen as in continuity with human language.

Fouts concludes his article "Chimpanzee Language and Elephant Tails" (1983) with what amounts to a plea:

I am offering the concept of *continuity* as the solution to problems of methodology and analysis in nonhuman primate language studies. There is a continuity between language and other behaviors, both cognitive and social (e.g., tool making and nonverbal communication). There is continuity in the development of language, from so-called communicative behavior to adult language use. There is continuity from the evolutionary viewpoint, from protohominid social, cognitive and communicative behaviors to those of contemporary humanity. I reject the notion that there is some ultimate cut-and-dried criterion that distinguishes language from all other social and cognitive behaviors, or that distinguishes human communication and thought from that of all other species. (74)

The sorts of problems Fouts believes are created by the either-or approach include an inability to come to terms with the sociality of language—a crucial factor in both nonhuman and human communication. This point is central for philosophical accounts of language as well, especially those growing out of Wittgenstein's later work. Wittgenstein famously insisted that utterances can only be understood as part of a "form of life"; meaning is inseparable from activities and interactions created by communities which have their own internal rules and dynamics. And some aspects of these forms of life are prelinguistic.

Alasdair MacIntyre calls attention to the prelinguistic underpinnings of language in *Dependent Rational Animals* (1999). The title succinctly states MacIntyre's definition of humans, which suggests in itself that rationality grows out of animal nature rather than standing over against it as totally other. MacIntyre employs the metaphor of a scale:

To acknowledge that there are these animal preconditions for human rationality requires us to think of the relationship of human beings to other intelligent species in terms of a scale or spectrum rather than a single line of division between "them" and "us." At one end of this scale are types of animals for whom sense perception is no more than the reception of information without conceptual content. There is, in Heidegger's terms, no "as-structure" whatsoever. At another level are animals whose perceptions are in part the result of purposeful and attentive investigation and whose changing actions track in some way the true and the false. And among such animals we can distinguish between those whose perceptions and responses are more fine-grained and those whose perceptions and responses are less so. (1999, 57)

Thus, MacIntyre insists, as do the scientists thinking in the tradition of Darwin, that the continuum of physiological and cognitive complexity extends across the biological spectrum and includes humans. Drawing an absolute boundary between human and nonhuman is harmful because it obscures important distinctions among nonhuman animals, and because these differences have a bearing on the nature of human language.

A COMMON ENEMY IN DESCARTES

The scientists and philosophers to whom I have alluded have with Percy a common foe in Descartes. The way each has responded to Descartes's view of mind and of his related views on nonhuman animals is instructive for the human/nonhuman divide. The scientists with good reason blame Descartes for erecting a huge barrier to understanding nonhuman animals. Descartes believed that animals lack mind and that therefore they are in effect automata that are not, for example, truly capable of feeling pain. This view followed from Descartes's conclusion that the human mind was of a different substance from the body, and that thus the mind was, in Gilbert Ryle's famous phrase, the "ghost in the machine." Fouts is not alone in seeing

notions such as Chomsky's language acquisition device as a continuation of Descartes's line—a late attempt to shield human uniqueness from animal intrusion. The view of nearly all the animal language researchers seems to be that Descartes in denying mind to nonhuman animals has in effect set up a roadblock to the realization of Darwin's essential insight concerning biological development. Percy, on the other hand, is critical of Descartes not for what he says about nonhuman animals but for the consequences of his view for human nature. Echoing philosophical critics, Percy believes that Descartes has divorced us from our bodies and sundered us from the physical world in which we have our being. And as Percy sees it, this "angelism/bestialism" (1983, 115) has been reinforced by the ascendant scientific paradigm as reflected in thinkers such as B. F. Skinner. Thus for Percy, Descartes is in league with the scientists in limiting what can be truly known about human nature to the observable and quantifiable, thereby leaving the real human subject—Descartes's *cogito*—completely out of account. For Percy, many modern ills follow from attempting to treat ourselves as we do other objects in the world—as things to be observed and manipulated. The potential difficulty Percy creates for himself by criticizing science for treating human nature the way Descartes treats animals is that Percy seems to be promoting his own form of mind-body dualism. He wants science to recognize the nonmaterial nature of Peirce's "interpretant" who combines the signified with the signifier (see above). The human self, Percy insists, exists at a different level of being from observable objects. But if this is so, then it would seem to exacerbate the rift Percy identifies as the source of modern anxiety.

MacIntyre's notion of human language arising out of our "mere" animality offers a potential corrective. If a fully human self only arises as a possibility with the advent of full-fledged language, as the Helen Keller example suggests, and if language at whatever level arises from bodily life that humans largely share with nonhuman animals, it would seem to follow that the rift between mind and body or subject and object is closed. Thinking of language sophistication as existing on a scale or continuum not only brings nonhuman animals closer to humans, it also connects the most abstract and symbolic reaches of language (and the language user) to its corporeal origins. This notion is related to Slobodchikoff's call for thinking of language as a "discourse system" (2012, 34) that includes the parts of the body that coordinate in sending, receiving, and responding to signals. Avoiding the psychological and theoretical errors of the ghost in the machine might well begin with thinking of language as an embodied activity.

The notion of "embodied" language also reinforces the importance of the social, for our biology, including our discourse system, is something we have in common with others of our species. In addition to separating us from other animals, Descartes's theory of mind cuts us off from each other. But as MacIntyre observes, "interpretive knowledge of others derives from and is inseparable from involvement with others and the possibility of Cartesian doubt about the thoughts and feelings of others can arise only for those deprived of such involvement either by grave psychological defect, or, as in the case of Descartes, by the power of philosophical theory" (14). The necessarily intersubjective nature of language thus challenges the isolation to which Descartes doomed the *cogito*.

HEIDEGGER'S WELT AND UMWELT

Perhaps the key both to modifying Percy's case in light of recent thinking and to recovering what science has yet to learn from him can be found in the work of another philosopher to whom Percy responded, Martin Heidegger. As Percy mentions near the end of his Jefferson Lecture, Heidegger draws a distinction between the world humans inhabit (Welt) and the Umwelt (which Percy translates as "environment") inhabited by nonhuman animals. A "world" in this sense is a symbolic construct—a unitary field in which things have their own identities (and their own names). Nonhuman animals are world-less, existing in an *Umwelt* which is simply there. Heidegger develops this notion by explaining that nonhuman animals do not recognize an "as-structure." "The lizard lying on the rock may have some awareness of the rock, but not as a rock. The bee is guided in its flight by light, but is not aware of the light that impinges on it as light" (quoted in MacIntyre 1999, 44). Percy makes much of this difference in his parodic "self-help book" Lost in the Cosmos, especially in the section labeled "A Semiotic Primer of the Self." Having a world is necessary to having a self, and it is the condition of the modern human self that Percy is most concerned with. But a legitimate question arises concerning whether Heidegger and Percy after him have drawn the Welt-Umwelt distinction too sharply with regard to nonhuman animals, disguising an important transition in the process.

A good argument can be made that some nonhuman animals have rudiments of a world. Lizards and bees may be lacking in this department, but other species are not. MacIntyre notes that "the type of nonhuman animal ignored by Heidegger discriminates particulars, recognizes individuals, notices absences, greets their returns, and responds to them as food or as source of food, as partner in or material for play, as to be accorded obedience or look to for protection and so on" (47). Heidegger's analysis goes too far in lumping together the entire nonhuman animal spectrum, missing important gradations thereby. MacIntyre neatly summarizes:

Heidegger is of course quite right in some of the claims he makes about nonhuman animals. They cannot stand back from their immediate environment. (They notably lack those conceptions of a remembered past and an envisaged future that only the possession of language makes possible, and so they cannot put the present in a temporal context.) ... But Heidegger's picture of the nonhuman animal as merely captive to its encircling environment, released into activity only by those features of that environment which disinhibit its instinctual drives, while the human being by contrast is freed up from such captivity by its conceptual and linguistic powers, is a piece of rhetorical exaggeration. (1999, 47)

The problem created by this exaggeration is that it hides from us the fact that "Our second culturally formed language-using nature is a set of partial, but only partial, transformations of our first animal nature" (49).

Percy seems guilty of this same exaggeration. But this is not to say that the reasons for the exaggeration are invalid. What if, as Percy claims, our conception of human nature has been seriously impoverished by a refusal on the part of science to pay attention to exactly those elements Heidegger trumpets? The fact that human language and cognition are in continuity with developments among nonhuman animals does not rule out the possibility that some human powers are unique, even if they are not inherently unique. In other words, humans may have properties that are at present peculiar to our species, but are in principle possibilities for other species. Indeed, current thinking in human evolutionary biology and paleontology favors the view that, as recently as 25,000 years ago, *Homo sapiens* coexisted with at least four other hominid species who "shared with us all the key features we today identify with humans alone." Summing up the similarities, Joshua Moritz concludes, "Beyond having opposable thumbs, a bipedal gait, and large brains, they also had well-developed material, social, and symbolic cultures and in all likelihood possessed the capacity for spoken language" (Moritz 2012, 85). It seems increasingly likely that the human family tree has had multiple branches, several of which became extinct as separate species. Some of these nonhuman hominids produced art that included symbols; they also carried the gene FOXP2, a gene implicated in the development of speech and language (87). This, of course, is a challenge to human uniqueness, for it means we have competition from our own evolutionary past to the claim for discovering symbolic language use. But do these challenges to human uniqueness refute Percy's core argument? He insists they do not.

Despite his Heideggerian tendency to play off "human" language against "animal" communication, Percy is careful to qualify his claim. In *Lost in the Cosmos* he says: "This phenomenon [symbolic language] occurred in the evolution of man. It may have occurred elsewhere in the Cosmos, or it may have occurred in other creatures on earth. We do not know" (94). He insists, "The present argument does not require that triadic behavior be unique in man. Perhaps it is not" (95). If such is the case, then Percy remains relevant, for the real import of his argument is not that humans are unique, but that the self created by language is unique.

SCIENCE RENEWED

The core of Percy's argument is that by ignoring triadic behavior, science has failed to come to terms with the most important dimension of human nature, a dimension we may or may not have in common with other creatures. Psychology notwithstanding, according to Percy's account there is at present no true "science of man" (as Percy frequently terms it) because the methodological assumptions of modern science have blinded it to the central datum of human existence: the "I" that results from the triadic transaction first described by Charles Peirce. Just as the brain is the central human organ, so the "interpretant" or "I" or "self" is the central component of our humanity. To study the brain without recognizing the self is like describing the syntax of a joke while ignoring that jokes are supposed to be funny. In both cases, the results may be revealing and significant, but they are hardly complete. Upon reading such an analysis, one feels as though he has eaten the recipe instead of the pie. Despite its vast successes, therefore, Percy observes that "science as we know it cannot utter a single word about what it is to be born a human individual, to live, and to die" (1991, 288).

Directly related to this failure is the inability of current social science to come to terms with human difficulties that fall outside the purview of "dyadic" relations. Percy recognizes that clinical psychology and many of the theories employed by psychotherapists starting with Freud assume a mental apparatus that is somehow parallel to organic structure, but these theories cannot explain how the organic is related to the mental. And even these theories, as in the case of Freud, mirror "dyadic" science by proposing a set of entities such as the id, superego, and ego that, even though they cannot be observed as say the firing of a neuron can be detected, still function dyadically. Maslow's hierarchy of needs supplies a similar example. In Maslow's theory, the higher "needs" of meaning and self-realization are of the same sort as food and shelter. Maslow does not recognize what Percy sees as the qualitative, triadic difference between life as an organism and life as a symbol user and world maker. Maslow and Freud jump from one mode to the other without accounting for the difference. And all too often, the therapies that issue from such theory fail, because the triadic self does not operate according to dyadic rules.

The key missing ingredient in dyadic theories of the symbolic self is recognition of the self's unknowability. For Percy, this fact is not just another version of the platitude that man is a mystery to himself. Percy means it as a scientific observation, rooted in semiotics. Thus, "The fateful flaw of human semiotics is this: that of all the objects in the entire Cosmos which the sign-user can apprehend through the conjoining of signifier and signified (word uttered and thing beheld), there is one which forever escapes his comprehension—and that is the sign-user himself" (1983, 106). For reasons similar to those that have led science to overlook Peirce's

"interpretant," the naming "I" is never sufficiently captured by any of the names it can assign. This permanent state of invisibility is the source of unresolvable anxiety on the part of the self, which looks for validation through the eyes of others and through an endless series of self-representations which give only fleeting relief. It is this state of uneasiness, exacerbated by science's reinforcement of a view of human nature that is blind to the problem, that lies behind such phenomena as those explored by the existentialists through concepts such as "dread" and "ennui."

"Ennui," for example, is not an affliction that arises from a lack (of food or shelter or companionship) but rather from what one might call a surfeit. One is bored because one has too much freedom, and sees no reason to do one thing rather than another. Ennui and dread, or anxiety, which in the Kierkegaardian sense is not a fear of anything in particular but rather a state of nameless inadequacy, all arise from the semiotic fall, what Percy calls "the banishment of the self-conscious self from its own world of signs" (108). Complaints such as dread and ennui by Percy's reckoning have little to do with the organic needs we share with nonhuman animals.

Percy's previously mentioned appeal to childhood development seems to confirm his semiotic analysis. Somewhere approaching the age of two, the typical human child experiences a language explosion, adding incessantly to her vocabulary. At four, this immersion in language has become fully social, with the child engaging happily and spontaneously with others. But by six, most children have grown wary and guarded when it comes to others' opinion of them. The reason for the difference? Self-consciousness (Percy 1983, 106–08). Once again, by Percy's reckoning an observable phenomenon is most adequately explained within a semiotic, triadic framework. Percy's observations are not themselves scientific, nor would he claim to have proven his semiotic hypothesis, but his examples do suggest the richer interpretative possibilities that might arise from the broader framework he recommends. The notion of a kind of "fall" into self-consciousness through the use of symbolic language exposes one of the gaps in current scientific explanations of human nature.

It is ironic that such gaps are quite similar to those ape researchers descry in some scientific criticisms of their language studies, including criticisms Percy echoes. In these critiques, observations of natural behavior that are not part of controlled studies are treated as anecdotal and unscientific. For example, Anderson scrutinizes Washoe's reported signing of a swan as "water-bird," a combination she has not been taught applied to a type of bird she had no name for. This appears to be a breakthrough, for it represents independent, creative sign use beyond rote association of sign to object. But Anderson plausibly objects that the evidence is far from conclusive. Washoe may have been attending to the water, and signed what she saw, after which she noticed the swan and added "bird." In other words, the signs might not have been a true combination at all (274).

Further, without consistent and repeated use of the sign combination in different contexts, one cannot be certain she had mastered the new sign. Such caveats are a needed defense against the Dr. Dolittle phenomenon of anthropomorphizing nonhuman animals. However, the rebuttal from researchers such as Fouts and Goodall and Pendleton and Slobodchikoff does raise an important point. Without an understanding of the context that make signals meaningful to a nonhuman animal, we have no reliable way of assessing the level of its communication. By analogy, imagine how puzzling an activity such as American football would be to someone with no concept of a game. Without an imaginative leap that allows us to project ourselves inside the "game" that is being played by those combinations of signals and behaviors that constitute communication, we are at a complete loss. Perhaps the converse of the Dr. Dolittle delusion is the failure to generate an ape or parrot or dolphin point of view. As Slobodchikoff succinctly states, "We have only a limited understanding of the nuances of animals' lives—of what is important to them—but we make assumptions based on our very limited knowledge" (2012, 254). In attempting to enter the world of other species, it is better to abandon controlled trials and "study the signals of animals under natural conditions in wild populations In wild populations the sample sizes are larger, there are no training schedules, and cueing is usually not an issue. ... [W]e have abundant evidence that we can decode the natural language of animals, if we have the appropriate contexts for our Rosetta Stone" (2012, 251).

All language grows out of a social matrix, and full knowledge of it requires an insider's view of context. Many of the actions of nonhuman animals that lead strict scientific scrutiny to exclude them as true language behavior are quite similar to what we observe in humans. For example, a child will often try out a word playfully without applying it properly. Or a child will refuse to use a word she knows, simply because she is not interested in performing on demand. Human language "instruction" arises spontaneously through social interaction. Critics and researchers alike recognize that one of the great challenges of such nonhuman animal research is designing studies that reflect the internal world of the subjects. Philosophers of language in the analytic tradition have emphasized that understanding a language requires understanding a form of life. In his Philosophical Investigations (1968), Wittgenstein concluded, "If a lion could speak, we could not understand him" (II.xi, 223). Perhaps Wittgenstein was too categorical in his rejection of the possibility; those who work most closely and intelligently with animals have made remarkable strides in taking us into the mental worlds of other creatures. But Wittgenstein is surely correct in asserting that for the language of any animal, human or nonhuman, to make sense to us, we must take an internal view; we must understand its form of life. Although Percy may not entirely appreciate the ways in which nonhuman animal language systems overlap with ours,

he makes an important point similar to that of Wittgenstein and the animal language researchers: language and cognition cannot be adequately understood without an appreciation for mental worlds the subjects inhabit. We must comprehend the language game before we can parse the language. And this requires a participatory stance, even if the participation is largely through the imagination. For Percy, in the human case such a stance must include recognition of the new predicament brought about by inhabiting a *Welt* of symbols. And, quite simply, in order to enter the world of the human animal, one must acknowledge the "I" of the sign user. Only if science makes such an acknowledgement can it have anything to say about "what it means to be born a human individual, to live, and to die" (1991, 288).

In making this case, as he did in one form or another throughout his writing career, Percy had two primary aims. One was to reform science. He believed that modern science with its materialist and anti-metaphysical bias had rendered itself incapable of explaining the most important human phenomena. And, because science has been so spectacularly successful in understanding the physical universe, Percy believed that its cultural authority had evacuated religious and philosophical explanations of their cogency. As a result, modern people are spiritually adrift without knowing why. And so for Percy, a second, urgent reason to call attention to the "Delta" Factor" of triadic language was to counter the sort of malaise that issues in both private dysfunction and civic disintegration. Semiotics, as Percy understood it, makes is possible for those who embrace science to think of human beings (and perhaps other creatures) as spiritual beings, and to do so without contradiction or compartmentalization. For Percy, scientific knowledge is incomplete until it can account for the semiotic subject. And once the bridge between man as subject and as object is rebuilt, the integrating power of humanistic wisdom becomes available again. Clearly, Percy himself sees this as a necessary step in the establishment of a new kind of Christian humanism of the sort he himself embraced. His plea is not finally in behalf of human uniqueness, but rather for a deeper and richer understanding of reality that symbolic language makes possible.

If earlier hominid species and some nonhuman animals sometimes cross the threshold into selfhood, there is no reason in principle not to welcome them, despite what Percy may sometimes have implied. Indeed, one might make the case that progress in the study of nonhuman animals depends upon cultivating the kind of insider's stance Percy advocates for human language. Perhaps the next step in understanding all sentient forms of life is to accord it the qualities of mind, or at least the incipient ingredients thereof. Percy opens this door by remarking that "it may well turn out that consciousness itself is not a 'thing,' an entity, but an act, the triadic act by which we recognize reality through its symbolic vehicle" (1991, 287). If this is so, then any creature capable of language is capable of selfhood,

with its attendant glories and miseries. As Moritz argues in "Evolution, the End of Human Uniqueness, and the Election of the Imago Dei" (2011), Christian theological notions of creation and salvation are not necessarily invalidated by the end of human uniqueness, but may actually be enhanced by them.

Walker Percy's predisposition toward defending human uniqueness and his inconsistency in carrying out his insights into the social nature of language may have weakened his case, but his insistence that science pay attention to the kind of selfhood that symbolic language makes possible remains salutary and necessary.

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