

# Mind Matters

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*The conceit that either mind is reducible to matter or that mind is utterly ethereal is rooted in a mind-versus-matter dichotomy that can be characterized as the modern error, a fatally flawed fallacy rooted in the philosophy and culture of nominalism. A Peircean semiotic outlook, applied to an understanding of social life, provides a new and full-bodied understanding of semiosis as the bridge between mind and matter, and human biology and culture. I begin by first delineating the false divide and showing Charles Sanders Peirce's alternative to it, then explore the implications of a semiotic approach to mind as transaction, then consider the self-transcending nature of the human body-mind. Finally I outline my ecological, biosemiotic account of mind, which reveals that, indeed, mind matters, and in ways that unexpectedly resemble the forms of animism that characterized the hunting-gathering foragers through whom we anatomically modern humans emerged.*

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## THE GREAT DIVIDE

*What is Matter?—Never Mind.  
What is Mind?—No Matter.  
—F. J. Furnivall*

The great divide of modern thought is whether mind is real or not. Materialists argue that mind is simply matter, understandable by and reducible to physical laws. The other side tends to argue that mind is that which constructs the laws of nature. In his *Critique of Pure Reason* Kant exemplified this view, that matter is merely a “sensory manifold,” given form by the faculties of knowing that constitute the human mind. Contemporary social constructionist frameworks echo the Kantian view in holding that mind is conditioned by one’s cultural beliefs and conventions, not by an external reality. The philosopher Gilbert Ryle (1949:26), criticizing the divide as it showed

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itself in Descartes' dichotomy of *res cogitans* (thinking substance) versus *res extensa* (extended substance), termed it "the ghost in the machine" and sought to eliminate the ghost. But these are not merely philosophical distinctions without practical import. The contemporary world is haunted by this ghost-in-the-machine dichotomy. Indeed, the contemporary world is largely the incarnation of this dichotomy, minding itself into matter.

Charles Sanders Peirce's semiotic philosophy reveals the mind-versus-matter dichotomy of the modern era as the modern error, as a fatally flawed fallacy rooted in the philosophy and culture of nominalism.<sup>1</sup> More than any other philosopher, including the other pragmatists, Peirce revealed the false premises of modern thought and the basis for a new outlook. I must necessarily introduce some technical terminology into the discussion, such as *nominalism*, *semiosis*, *mind as transaction*, and *bubble boy theories of meaning*, because they help focalize the ideas. So I beg the reader's patience. My claim is that a serious consideration of the human self and its institutions requires a full-bodied understanding of semiosis, of sign-action, as the bridge between mind and matter, and human biology and culture.

I begin by delineating the divide and showing Peirce's alternative to it, then explore implications of a semiotic approach to mind as transaction and the self-transcending nature of the human body-mind—for it truly is a body-mind that we inhabit, however clumsy the current English-language-hyphenated way of expressing this may be. Finally I outline my ecological, biosemiotic account of mind that reveals that indeed, mind matters, and in ways that unexpectedly resemble the forms of animism that characterized the hunting-gathering foragers through whom we anatomically modern humans emerged (Halton 2005).

Sociologists, especially those identified as symbolic interactionists, tend to shy away from biological aspects of mind, self, and society, despite the centrality to Mead and the other pragmatists of naturalistic ways of conceiving mind, self, and society that do full justice to cultural life.<sup>2</sup> The biosemiotic approach I am developing is an attempt to argue for a broadened place for signification in social life. I not only claim that purely conventionalist accounts of signification are overly narrow but propose a radical decentering from the encephalopod assumption that a mind is something in a head, to one that places the head, the body, the self, the institutions of society, and nature in the signifying being of mind.

The dichotomy of biological reductionism and cultural reductionism is a consequence of philosophical and cultural nominalism, and remains false, regardless of which side of the divide one is on. Dramatic and ritual-like processes percolate up from our deep biosemiotic nature. The human body-mind is biological and cultural; biology and culture are literally symbolically interactive in the human body-mind.

The idea that mind is simply brain functioning, and that humans, in the barbaric phrase of the computer scientist Marvin Minsky, are simply "meat machines," is not only patently false but represents a complete inversion of the evolutionary process

by which human brains and minds developed. I take the brainiac, meat-machine view as pathological and, as such, a key indicator of the likely terminal mental illness of civilized humanity.

Materialism is a state of mind. It is the delusive fiction of mentally derived physicality, sense without sensuousness, law without semiosis. Scientific materialism is rooted in a conception of the universe as basically composed of lifeless matter in motion, out of which life springs by chance. Yet consider that the word *materialism* springs from the Latin *mater*, the shoot-producing trunk of a tree, and a transferred use of the life-giving capacity that defines a mother. Modern materialism, as such, can be considered a complete etymological inversion of the term *mater*. And we might view its universe as the complete inversion of that of traditional pygmies, who live in what they call *Mother Forest*, a variegated presence. What if the pygmies got it right, and the universe, or multiverse, or All, or whatever we call it, is relational? What if it does mind? What if such a view could be reconciled with a scientific outlook?

The materialist takes the uninterpreted fact as the starting point, a thing that can be pointed at. But a fact is not an evanescence of existence: that would be supernatural. *A fact is a social object of interpretation in the long run*, an appeal to further interpretation and determination, to what Peirce conceived of as an unlimited community of inquiry, which it also helps determine. Yet materialism would hold that an isolate fact is an ultimate, and incognizable. That is materialist magic. So-called scientific realism is a way to exclude reality through fetishistic attachment to precise material portions of it.

Postmodernists tend to take interpretation as the starting point and treat objectivity as the product of interpretation. As Friedrich Nietzsche (1967:481) put it, “There are no facts, only interpretations.” A fact is not an isolate object, calling out for interpretation, but is already an interpretation. But Nietzsche was not a postmodernist. Regardless of what Nietzsche meant by “facts,” interpretation need not imply relativism. Nor is it necessarily reducible to arbitrary conventions of interpretation. Those are simply the views resulting from the false mind-versus-matter dichotomy that characterizes nominalism, with its assumption of a primal object and primal subject needing to be mediated, but only *ex post facto*.

In contrast, the mediational or semiotic view of mind, self, society, and science, most deeply articulated in Peirce’s philosophy, rejects materialism, positivism, and all other views that would claim a thing-in-itself outside sign-mediation as illogical for holding something incognizable as a basis for cognition.<sup>3</sup> Peirce’s view also entails rejecting forms of social constructionism that claim that all signification is either conventional or contingent as being too narrow. In such views the human self is typically the passive product of what has made it, yet in the Peircean perspective—and those of the other pragmatists—the self can self-construct. Or self-destruct. I hope that you and I, dear reader, if we have any spark of life left, are more than simply a conditioned artifact. You and I, if we still spark, create our culture and our selves, as well as participate in cultural norms and conditioning. We are mind-body

builders: social construction workers whose building blocks are real signs of life. The capacity for spontaneous life and intelligence, bubbling into being, is more than a mere function of evolutionary imperative and cultural conditioning, though it may involve both. It is a reality of the fountain of life, in my view, not to be reduced to the Procrustean bed of the modern rational-mechanical mind.

What I call the *bubble boy theories of meaning* (after the boy who had to be kept in a germ-free bubble, unable to touch or be touched by the world) claim that meaning is purely conventional or contingent. These theories stem from assumptions of nominalism, and many are influenced by Ferdinand de Saussure's (1916) semiology. These views typically exclude nonconventional modes of signification, and one reverts back to something like the Kantian form-versus-content distinction: meaning as ethereal form versus meaningless content of forms, or as contingent recombination of forms. Émile Durkheim's ([1915] 1965, 1973) discussions of collective representations, in which "the part of matter" used in the representation is reduced to a minimum, and in which the body is pitted against the social and the representational, also exemplifies bubble boyism. There is of course arbitrariness in conventional representation, yet he grossly underestimated the place of living habitat as a real element in the mind of the Australian and other hunter-gatherers he frequently referred to.

Durkheim's conceptualist view of collective representations might have socialized Kant's structuralist faculties of knowledge bubble, but Durkheim remained incapable of breaking out of the knowledge bubble to see that the "elementary form" of religion, revealed in hunter-gatherer societies, is the living effort to connect to and participate in the all-surrounding life of ongoing creation. Lucien Lévy-Bruhl (1926:129–30) saw this experiential dimension of meaning making more clearly than Durkheim in his discussions of *participation mystique*, which concerns how the hunter-gatherer mind lives nature "by feeling itself participate in it" rather than simply objectifying it conceptually. I call this consciousness *animate mind* and claim that it remains organically present in the contemporary body-mind, despite the vast transformations of consciousness introduced in civilizational and modern life (Halton 2007).

Similarly, Peirce's semiotic can encompass the extraconceptual nature of signification involved in experiential representations, as can the transactional philosophies of John Dewey and George Herbert Mead. In the bubble boy views, however, meaning cannot touch or be touched by the world. That is why they are inadequate, in my view, to account for the full-bodied life of signs.

Peirce, who was also the primary inventor of mathematical logic, intended his semiotic as a broad theory of logic (Sowa 2006). Here I am drawing implications of that logic for social thought. I have written at length in other works on the technical aspects of Peircean semiotic, its differences from Saussurean models, its radical distortion by Charles Morris at midcentury into a positivist model fundamentally at odds with Peirce's carefully conceived logical exposition, its points of continuity with Mead and Dewey, and the tendency of semioticians to focus on technical terminology at the expense of the pragmatic import of the ideas (Rochberg-Halton 1986;

Halton 2004b). I do not wish to dwell on the technical aspects of this history or the terminology here, but simply to develop some implications of a Peircean semiotic and pragmatic outlook for understanding social life.

### AS SIMPLE AS ONE, TWO, THREE

Peirce claimed to be a “backwoodsman” exploring semiotic, or doctrine of signs, and his terminological forest of symbols can be difficult to comprehend, as can the concepts he articulates. But once you get it, it’s as simple as one, two, three.

In about 1898 Peirce adopted his three modalities of being, which he sometimes called the three universes and which permeate his philosophy: being considered as first, as second, or as third. Imagine we live simultaneously in three universes: first, the universe of possibility, of present quality, of chance, that is, of firstness as firstness; second, the universe of existence, of brute otherness apart from law, of secondness as secondness; and third, of generality, of law, of triadic relation, of semiosis or sign-action, of thirdness as thirdness. As Peirce put it in 1908, “The third Universe comprises everything whose being consists in active power to establish connections between different objects, especially between objects in different Universes. Such is everything which is essentially a Sign—not the mere body of the Sign, which is not essentially such, but, so to speak, the Sign’s Soul, which has its Being in its power of serving as intermediary between its Object and a Mind. Such, too, is a living consciousness, and such the life, the power of growth, of a plant. Such is a living constitution—a daily newspaper, a great fortune, a social ‘movement’” (Peirce 1931–34:6.455).

Thirdness is a broad category indeed, comprising the realm of signs. Peirce viewed human conduct as sign-habits. All signs are inferences, and an inference is neither simply a material thing nor a dematerialized “thinking substance” but a spatiotemporal activity. Thus a sign is an inferential, triadic process of (1) sign representing (2) object to (3) an interpretant. There can be signs of firstness, or icons, secondness, or indexes, and thirdness, or symbols. A sign is inherently dialogical, addressing itself to an interpretant, which itself is a sign addressing itself to an interpretant, *ad infinitum*.<sup>4</sup>

An utterance is not simply something unreal until it is heard and interpreted; it is an utterance-sign, representing itself in its own triadic nature to that which would interpret it. Like every sign, it involves a modality of being not limited to “existing” in a moment but pragmatically in the conceivable consequences (or interpretations, or “hearings”) it engenders. Just as every sign is an inferential process occurring in time, or semiosis, every sign involves its futurity, its conceivable consequences. The name for this way of conceiving signification is pragmatism, as Peirce originally conceived it.

Further, the continuing process of interpretation involves further determination of the object through the self-correcting process of interpretation known as inquiry. That opinion that would be reached at the end of inquiry (whether or not actually

reached) is what Peirce calls truth, and its object, the real. Hence reality is more than existence (or secondness); it is of the nature of a general sign (or thirdness). This theory involves the idea that reality is of the nature of a would-be, a conditional, not simply an actual. Can we say that the untested diamond you have never seen is hard, scientifically? Peirce's doctrine of realism argues that if it were a diamond, then it would really be shown to have the hardness of a diamond if scratched: scientific inference includes the conditional as an aspect of objectivity, and interpretation as a process of continual inquiry.

Hence in its deepest articulation, as Peirce framed it, the semiotic view is a scientific realism at odds with the modern materialist conception of realism, which Peirce claimed was illogical. Peircean semiotic realism, with its view of interpretation as continuing inquiry, involves an outlook Peirce also described as "concrete reasonableness," wherein mind in general, not simply as human mind, is an emergent evolutionary capacity capable of progressive embodiment in the nature of things.

My outlook is that of a semiotic realist, but also a fantastic realist, who takes the biopoetic passions and dramatic expressions of social life—of human and other species—quite seriously. Human development and human social life are marked by narrative-like processes, many of which are purely conventional but some of which are biological as well. Take the biosocial drama of mother-infant bonding and separation between one and one-half and three years of age as one example: literally the essence of mammal, bodying forth from the infant's genome, yet also with a specific human biodevelopmental trajectory and human varieties of conventionalizing it. This narrative of empathic touching, gazing, and the emergent ability to "No!" the world by the infant results in a self capable of empathy and autonomy. Without it the self is left empathy deficient, as in clinical narcissistic disturbance, capable of cognizing the world but not of fully feeling it: the emotional bubble boy or girl.

Communicative mind is a semiotic process, involving material processes, though not reducible to them. Thought is in signs, not locked in a brain, even when involving brain. In which "lobe" do you carry the conceivable consequences of your conduct, for there, pragmatically speaking, is to be found the real world. All scientific observation depends on it, on future conceivable consequences, without which any observation is rendered meaningless.

Peirce, the founder of philosophical pragmatism, rejected Cartesian dualism. His articles of 1868, published when he was still in his twenties, demolished the Cartesian foundations of modern philosophy and of foundationalism. He showed that science does not require foundations but only continuing self-corrective interpretation in an unlimited community of inquiry for securing fallible, objective truth (Rochberg-Halton 1986). He argued instead for a semiotic conception of meaning and for what he would later call pragmatism, which he even later had to distinguish as "pragmatism," because people who thought to develop his idea of pragmatism (the "Peirce snatchers") just didn't get it.

Pragmatism claims that meaning bodies forth in conceivable consequences; in Peirce's words from 1906, "Pragmatism makes thinking to consist in the living

inferential metaboly of symbols whose purport lies in conditional general resolutions to act” (Peirce 1931–34:5.402n3). Restated, mind bodies forth and becomes embodied in conceivable consequences of signs. Hence mind, considered from pragmatism, includes the conditional as real, and not only the existential.

In the real world, thought and signs occur in a spatiotemporal field that involves the brain, but is not limited to it. As Peirce put it, we are in mind, like a bicycle can be said to be in motion. Minding is not imposed on the universe but is an emergent aspect of it. To reduce a thought or a sign to a brain function would be like analyzing the typographic components of these word-images you are reading to understand their meaning, as absurd as dissecting a whale to understand *Moby-Dick* or chemically analyzing a painting to understand its artistic meaning. The meanings of thoughts and other signs are found in conceivable consequences they engender, whose signs are often found in places other than your brain. They are found in conduct and objects and times—in those consequences that make the pragmatic meaning—that go beyond brainpans.

The essence of a sign is to represent something to another sign, its interpretant. Mind is not reducible to a synaptic gospel, sparking between the neurons (marvelous though that electrochemical dance may be!), for it lives in the good news of the semiotic gospel, whose pragmatic fruits include the would-be interpretation not yet actualized (Halton 2004a, 2004b). Let us explore further some of the ways in which mind matters meaning into being.

## MIND AS TRANSACTION

*That conclusion to which I find myself driven, struggle against it as I may, I briefly express by saying that the inkstand is a REAL thing. Of course, in being real and external, it does not in the least cease to be a purely psychical product, a generalized percept, like everything of which I can take any sort of cognizance.*

—Charles Sanders Peirce

Mind viewed as a sign-process is a transaction, a spatiotemporal activity. The living human self involves a triadic transaction with its environment, not a dyadic stimulus-response. I first introduced a triadic, semiotic, transactional model of the self in 1981 in *The Meaning of Things: Domestic Symbols and the Self*. I use the term *transaction* in the sense in which Dewey (1938) proposed it in his book *Logic: The Theory of Inquiry*. The terms *interaction* and *symbolic interaction* still suggest a primordial subject (individual or collective) or object brought together in an interaction, rather than those terms as emergent from the triadic transaction. In this context transaction can be viewed as a triad of self-object-interpretation or of agent-patient-enacted.

Mind, then, is not limited to the brain or corporeal organism, but is literally in transaction with its environment, inner and outer, through its own bodily organs of awareness. As Mead (1934:223) put it, “Our contention is that mind can never find expression, and could never have come into existence at all, except in terms of a social environment. . . . If

mind is socially constituted, then the field or locus of any given individual mind must extend as far as the social activity or apparatus of social relations extends; and hence that field cannot be bounded by the skin of the individual organism to which it belongs." Or, I might add, by the neurons of the individual organism to which it belongs.

The self as a transaction with the environment is mediated by what I term the "membrane of the self," that boundary organ of communication through which the self (1) qualitatively attunes itself to its environment, (2) selectively attends to and filters out various aspects of its environment, and (3) enacts its purposes in transaction with its environment. Those purposes may involve composite modalities of self, which, influenced by Peirce, I have termed *the personal self*, *the social self*, and *the cosmic self* (Csikszentmihalyi and Rochberg-Halton 1981; Rochberg-Halton 1986; Halton and Rumbo 2007:297–318). I shall return to these modalities of self, but first let us consider Peirce's three modalities of consciousness.

Peirce distinguished these modalities in describing his philosophy of synechism, or continuity: carnal consciousness, social consciousness, and spiritual consciousness. If carnal consciousness is the bodily life of signs—alive in transaction with the social environment—social consciousness is how "a man's spirit is embodied in others, and which continues to live and breathe and have its being very much longer than superficial observers think" (Peirce [1893] 1998:3). It is the life of signs of the body social, in which we are participant. Suppose, for example, I perished after tapping out these words you are gazing at. They, and hence a part of me, would live and breathe as social consciousness, independent of my carnal consciousness, through you. They would continue minding both as signs and as conceivable consequences, as Peirce also does in this discussion, which can also be considered as one of the conceivable consequences of pragmatism.

By claiming that humans are capable of spiritual consciousness, Peirce does not mean religion in the everyday sense but participation in truth, however that comes about. His doctrine of synechism is an aspect of his scientific philosophy, though he saw it as conducive to eventually reconciling religion and science. In Peirce's semiotic sense of "spiritual," the life of science is an example of spiritual consciousness. It is inquiry into the truth of those eternal forms such, as Peirce the mathematician would put it, that mathematics makes us aware of, or of those generals that result from a specific research, or in a different context, that art manifests. Science and art "parasitize" the bodies they incorporate, as all mind, in mattering, might be said to do. When you learn social science, for example, the community of inquiry of which you are a part can be said to be parasitizing you from an institutional perspective, incorporating its corpus of signs through you. Its spiritual consciousness lives in its individual members and in the developing ends they serve and even help create. Spiritual consciousness is thus a perspective in which to view how real truths manifest in social practices. Mathematics may provide a tidy example, but what about social sciences, which seem, well, way fuzzier?

As I see it, a social scientist would be one who analyzes social realities such as he or she observes them, not in the eternal sunshine of mathematical forms but in the

muck of life. I remember being at a conference at Berkeley on Robert Bellah and his coauthors' book *The Good Society*. One of the data from their previous book, *Habits of the Heart*, was in the audience and argued with an interpretation! Mathematicians don't seem to have that problem of data speaking back. Yet truths are still ascertainable in the tangle of life, however roughly hewn by the social sciences. Only they may be based in an overall rightness of a narrative or ethnography, in overall compellingness rather than unfalsifiable precision.

Peirce ([1898] 1998:39), the founder of pragmatism, argued that in tending to treat arts and sciences as practical, we would use them as an individual man

uses the deer, which I yesterday saw outside of my window; and just as in writing this I am burning great logs in a fireplace. But we are barbarians to treat the deer and the forest trees in that fashion. They have ends of their own, not related to my individual stomach or skin. So, too, man looks upon the arts from his selfish point of view. But they, too, like the beasts and the trees, are living organisms, none the less so for being parasitic to man's mind.

Now here is a stake, poised to strike at the heart of one of modern materialism's assumptions: that arts and sciences primarily serve practical human purposes. This assumption also manifests in evolutionary views that all mind, all reasonableness, is merely a function of survival. Shift the perspective from anthropocentric to cosmocentric, and you can see how arts and sciences, living parasitically through the human mind as institutions spawned from it but not limited to it, may have ends that the human mind serves, apart from practicality. Or go further and consider how they helped create the human mind as well. For example, humans did not invent music but evolved into being immersed in it, in birdsong and other living audio manifestations of ecological mind (Halton 2007). So it is not so farfetched to view arts and sciences as real beings that can evolve toward "concrete reasonableness." This is a keynote of Peirce's philosophy of science, of pragmatism, and of what he means by spiritual consciousness. The object of inquiry, namely, truth, determines the community of inquiry in the long run, and such determination may not be limited to humans as they have evolved thus far.

Peirce's idea of "endless semiosis" denotes the continuum of sign interpretation, not limited to the actual individuals who make up the community of interpretation but inclusive of *an unlimited community of interpretation*. Peirce claimed that the possibility of endless semiosis is what gives present thought its possibility of being true, because any knowledge or thought in the present alone apart from continued interpretation is simply feeling rather than thought. In this sense, the reality of a self is not its material existence per se but its intelligibility as a sign.

Spawned in postmedieval nominalism and clock culture, modern science believed that things could be reduced to a materialist understanding, without sufficiently considering whether the communicative medium of signs in which this belief was represented could be irreducibly real and not simply "nominal." Modern science lost sight of what Peirce termed *the psycho-physical universe* and how its capacity for general habit taking, or semiosis, could engender "quasi-mind," as Peirce put it, and an

evolutionary development of mind and minds. Through its false nominalistic divide of thought and things, modern science rendered itself the arbitrary figment of its students of nature, since all knowledge in a materialistic, nominalistic outlook is merely names for things outside knowledge. Peirce claimed that such a nominalist way of thinking, shaving off real generality in the name of Occam's razor, actually cuts its own throat and ultimately renders science inexplicable. But science conceived as the investigation of a psycho-physical universe allows that truth is not reducible to the material particulars it involves but has as its object real, *general* law. Indeed, it allows that reality is of the nature of a sign, not merely material particulars.

As the communicative organ of the self, mind includes the pragmatic consequences it engenders. Those who would identify mind as simply internal neurocognitive processes falsely assume that signs are reducible to mechanical, electrochemical functioning, ignoring that neural, cognitive "information" may be the material means, but not necessarily the purport, of that which is communicated. To reduce those consequences to "neural activity" is an example of Whitehead's fallacy of misplaced concreteness.

To say that these words are just ink marks on paper (or images on a screen or sound waves in the air), which become meaningful only when actually interpreted by a mind, actually functioning in a working brain, would be folly. It would make communication between minds to be an occult affair, signs suddenly springing out of meaninglessness because some mind is now actually interpreting them in a brain function, then shading into nullity when the function is completed. It would exclude the object of a sign from the sign, though that object may determine the interpretation: meaning is in the object as it is involved in its interpretive spatiotemporal environment. It would exclude the real conceivable consequences signs produce, whether or not actually interpreted. Brain is an organ of mind, just as a bat or a keyboard can be. The bat may be considered an "inanimate" object, but it is also an animate sign in my example.

You are surrounded by mind in your built environment as you read this. These words are the true expression of my mind; they are an externalization of my mind, "liberated," as it were, from my neuronal activity. Neuronal activity is a bodily medium for sign-activity, meaningless except insofar as it addresses a future interpreting sign that it calls into being.

All communication is through signs. A sign imparts something to its interpreter, its interpreter may interpret or misinterpret that which is communicated. The original sign being interpreted may itself be a misinterpretation. An interpreter may also bring something more to the interpretation than was conveyed through the original sign; thus, the sign may grow, and we with it, for being a human being means being an organic sign-complex, in transaction with a universe suffused with signs. Even private conduct is mediate, the stuff of signs, though they need not necessarily be symbolic signs. Like all conduct they may involve iconic (or qualitative) and indexical (or existential) signs in Peirce's trichotomy, or "conversation of gesture" signs in Mead's outlook. Human biology is a natural construction of prior social experience

meeting the social present; in this sense, all mediate biosemiosis. This is neither biological reductionism nor cultural reductionism but a biosemiotic perspective that undercuts the old mind-versus-matter dichotomy underpinning each.

We live in and through signs, as signs live through us. Now Peirce was a physicist, experimental psychologist, inventor of semiotic, and pragmatist who also acknowledged the brute, existential aspect of matter, who arrived at the radical position that “all matter is mind, hidebound with habit.” In this perspective the earth bodied forth bodies literally in-formed by the general laws of nature, general laws that were not created by those bodies but that, indeed, may have been involved in producing those bodies. Eventually human beings were mattered out of evolving ecological mind. With humans those earth-begotten bodies even became capable of becoming conscious of such laws.

Peirce saw through the false modern divide between thought and things in developing a view of laws of nature as objective general habits, that is, as real signs. Hence matter, as governed by objective general habits of nature, can be regarded as “mind, hidebound with habit” (as thirdness), even as matter in an individual event, such as two things bumping, can also be regarded as a brute, existential instance (as secondness). And as Peirce ([1898] 1976:143) put it elsewhere, “I am not much afraid of specializing too much and of assuming that the universe has characters which belong only to nervous protoplasm in a complicated organism. For we must remember that the organism has not made the mind, but is only adapted to it. It has become adapted to it by an evolutionary process so that it is not far from correct to say that it is the mind that has made the organism.”

The human mind involves determinate neural processes, yet is also the product of indeterminate processes—the event that kills one’s parents, say, just after birth, altering the life course and potentially the brain’s structuring. The human brain, uniquely incomplete at birth, is also unique in being so dependent on *indeterminate* social processes for its completion in the first years of life, its further maturity dependent on its organic immaturity. Too much of this, too little of that, and the biosocialization process produces a different brain. Humans are a neotenic species (neoteny = newborn), for whom prolonged newborn characteristics were crucial to the origins and development of human culture and the self. The developmental retardation afforded emerging humans by prolonged neoteny, I would argue, is the basis for an increasingly Lamarckian-like mode of evolution—that is, the transmission of acquired habits of conduct, namely, culture.

Our minds are not only *products* of determinate evolutionary processes but most vitally *producers* of emergent possibilities, actualities, and generalities not reducible to those determinate processes. This is our little claim to being worth more than the modern, dead gas-ball universe’s weight in gold, that we are active aspects of the ongoing creation of a living universe. All that glitters is not matter but is also the stuff of which dreams are made: signs.

Yet the modern nominalistic, rational-mechanical worldview would treat signs as unreal, as reducible to determinate processes of matter. Such is the implication of

Saussure's conventionalist model and postmodern variations of it, as well as apparently opposed materialist reductionism. Neither side of the great divide can encompass the living quality of semiosis, of sign-action, which involves the presence and purport of signification. Similarly, Dewey's idea of "aesthetic quality," or "qualitative immediacy," shared by Mead, is an aspect of what could be called semiotic essentialism in pragmatism. But it is not conceived as somehow outside social signification, as are those forms of essentialism criticized today by postmodernists. It is social, an element of a transaction, just as the stimulus in a "reflex-arc" is, as Dewey showed in 1896. That is a unique contribution of pragmatism, ranging across Peirce's "Firstness," his invention of phenomenology (or as he preferred, phaneroscopy), "iconic signs" in his semiotic, and Mead's discussions of the "consummatory" (Rochberg-Halton 1986). In their different ways, the pragmatists mapped out a realm of meaning that is neither solely instrumental nor reducible to conventions, contingencies, or physical sensations.

Oddly, many qualitative researchers often appeal to cognitivist and post-structuralist theories that cannot account for qualitative signification, including what Peirce termed "iconic signs." In chapter 7 ("The Transactions between Persons and Things") of *The Meaning of Things: Domestic Symbols and the Self* (Csikszentmihalyi and Rochberg-Halton 1981), I drew from Peirce's triadic semiotic a threefold way in which to view person-object transactions, namely, (1) as aesthetic or qualitative, (2) as attention directing, and (3) as intentional or goal directing. Using Dewey's distinction between *perception* and *recognition*, I argued that aesthetic meaning involves a transaction wherein the object's qualities enter into the interpretation, regardless of whether the object also holds conventional meaning in the culture. The objects that respondents most frequently described with aesthetic meaning were actually houseplants, whose qualities they took note of in day-to-day transactions.

Fyodor Dostoyevsky's warnings in *The Brothers Karamazov* about the coming time when "everything is permitted" strike me as outlining the moral equivalent of contemporary "no fixed essence" ideology. People do have "essential characteristics," from inborn temperament or character to the inborn yet plastic resources of our hunter-gatherer, primate, mammalian past, to the vicissitudes of accumulated experience. It is a postmodern conceit, in my opinion, to deny essences, a conceit rooted in a misunderstanding of the nature of "essences." Such a view ignores the ways that qualities can act as qualitative signs, thoroughly social and communicative. The denial of inborn and naturally developed ingredients of the self stems from a kind of intellectualism that considers human conduct only from the neck up.

To those of the "top-down" view of humankind's place on earth, consider a "bottom-up" view: the possibility of institutional selfhood, of social consciousness and spiritual consciousness incarnated in the human mind through its individual participants. Mead demonstrated how the individual self is an internalized community. A semiotic view also allows the inverse: how external communities can act as genuine selves, living in and through individual members. And from that perspective, perhaps dogs are to us as we are to such institutions, serving them for whole lifetimes for good or bad.

Dogs and cats are artifacts of human domestication, bent toward human purposes in their genetic constitution. As such they participate in the human mind and are physical emanations mattered, in part, from it. But humans are also primates and mammals, universally bent toward primate and mammal characteristics in some of our deepest activities, activities from which the human self springs, such as mother-infant bonding and separation: the milk of mammal kindness. Nurture is in our nature even as nature is in our nurture. As such, we participate in the primate and mammalian mind even as it lives through and participates in us.

### MODALITIES OF THE SELF-TRANSCENDING BODY-MIND

Modern materialism divides mind and body, yet they form a psycho-physical unity. Let us consider how the human body-mind is a sign-complex not only not limited to the individual physical body but organically designed to transcend it. I begin with those composite modalities of self I have termed *the personal self*, *the social self*, and *the cosmic self*, and then reveal a new wrinkle on how “out of body” experiences are basic to the organic body-mind.

The personal self consists not only of those sign-habits that comprise one’s sense of self but also of the objects of those sign-habits. A sporting or musical activity can be a key ingredient in the self, represented by signs external to the body yet internal to the self. To put this differently, the generalized other can be found not only in mental representations but in physical representations as well.

A baseball bat, soccer ball, or guitar is just as much an embodiment of mind as these words are. Like you and like me, that bat, ball, or guitar is a sign, and the meanings of signs—the stuff of which mind is made—are found in the conceivable consequences they generate. The bats that the baseball player Sammy Sosa used as a kid were signs and instruments that helped engender the mature batting self of Sammy. Indeed, a marketed bat with the name “Sammy Sosa” can serve as a role model and genuine sign of the self of the child who uses and dreams with it.

Persons and things cocultivate each other through sign-activities. A batless Sosa is like a paintless Picasso: the public self of each can be found in the thing-signs as much or more as in the physical, animate organism. That is not to say that the personal self is not also a bounded self. For a healthy self is one aware of its differentiation from its significant environment as well as its empathic connections, through boundaries biosocially constructed in early childhood, especially during the mother-infant bonding and separation phase. Such a self is capable of self-determination, in contrast to, say, a codependent self. But there is more to the self than this.

Though the physical bodies of individual interpreters may die, the embodied signs of their lives may persist in continued interpretation. Even the personal self can live on in the memories of those it has touched, and in this sense combines elements of Peirce’s carnal consciousness and social consciousness. The social self co-lives in the person and the society or institutions surrounding the person and may continue to live on through that society. It is a way to view the self from the social,

rather than individual, perspective, and in which the individual is a member. For example, we partake of the “society” of intellectuals, which will continue on after we depart individually. Consider the words of Charles Horton Cooley (1907:97–109) on social consciousness: “Common-sense, moderately informed, assures us that the individual has his being only as a part of a whole. What does not come by heredity comes by communication and intercourse; and the more closely we look, the more apparent it is that separateness is an illusion of the eye and community the inner truth. ‘Social organism’—using the term in no technical sense, but merely to mean a vital unity in human life—is a fact as obvious to enlightened commonsense as individuality.”

The cosmic self is that portion of the creation, discovery, and embodiment of the reasonableness of the universe, characteristic of humanity’s need to question the universe and discover its meanings through religion, art, science, and other human practices.

This cosmic self, so crucial to humankind all the way up through medieval culture and the apparently well-known person of that time named “Anonymous,” would seem to have gone into eclipse with the rise of modern individualism, yet it remains a real potential of self-development, of that “energizing reasonableness that shapes phenomena in some sense . . . this same working reasonableness [that] has molded the reason of man into something like its own image,” as Peirce (1998:68) put it. In short, mind matters itself into emergent being, when one reconceives the universe as a psychophysical universe, suffused with signs.

Einstein didn’t “own” *Invariantentheorie*, the theory of relativity, he discovered it, yet though it may be imperfect, from this point of view we may say that this cosmic dimension of his self, this idea, continues to produce real consequences in the world through its (however imperfect) connection to reality, even though Einstein the man who bodied the idea forth and his pickled brain are long since dead. One might say that signs of Einstein’s cosmic self helped mind atomic bombs, transistors, and perhaps the electronic age into matter.

Of this cosmic dimension of the self it might be said that we live in it more than that it lives in us. Indeed, one might say that where one possesses a personal self, one copossesses a social self and is possessed of a cosmic self. The cosmic self, as I am calling it, originated in human attunement to, and marveling in, the all-surrounding signs of life. Through those processes and practices animate mind evolved into what Paul Shepard described as the wild Pleistocene bodies we retain today, despite the ten-thousand-year civilized veneer. This is what William Blake means in saying that “the Primeval State of Man, was Wisdom, Art, and Science.” What is science, after all, if not the human attunement to, and marveling in, the all-surrounding signs of nature?

Modern culture has opened up possibilities for the personal self, through things such as the expansion of privacy, or even the invention of the novel and its interiority, even as it expanded the possibilities of depersonalization. But it has done so seemingly at the expense of devaluing the cosmic self. Yet there may be counterexamples. In my opinion, the Faust bargain with Mephistopheles may be seen as the

willingness to sell out the personal self and its responsibilities in order for one's energies to be absorbed by the cosmic dimension, by a kind of egoless self-absorption that can produce great works and tragic personal lives. Herman Melville and Peirce are two examples that come to mind. They raise the question of what the right balance should be. Neither rugged individualism, cut from cosmos, nor the urge to merge into the All at any cost seems balanced.

Consider three touchstones of human nature that reveal how being a self involves organic "out of body" experiences of the self-transcending body-mind. We primates are born out of our mammalian ancestry and its great achievements of mother-infant bonding and separation, REM dreaming, and play. These are not merely human or even primate but mammalian achievements, yet also manifestations of our human biosemiotic essence. All three are ecstatic, engaged, out-of-body experiences crucial to the human self and the conduct of life (Halton 1995).<sup>5</sup>

Mother-infant bonding and separation, the mammary connection of the newborn, not yet itself, selected through evolution to be born prematurely because of its big brain, an in-utero-level primate ex utero, still in living connection with its mother, in its own body and in hers, in milk-need, in touch-need, in the gaze of empathy, in play, in learning in the world in ways that enter its strange in utero, ex utero big, premature brain. In short, simply being a baby is being in an in-and-out-of-body experience!

REM dreaming comes close to waking consciousness, yet remains so far from it. In REM we are utterly locked in paralysis in our body, motor capacities virtually shut off, yet we experience the world fantastically, as though utterly out of our locked-down body. When our dead speak to us from the dreamtime, we are utterly locked out of our body from the inside, yet not, in time that is not, yet seems to be. If REM is not an "out-of-body experience," what is?

A dream is a projection, an energetic projaculation, a throwing forth of a quasi-narrative, a tripping the inner light fantastic, in which the "higher functions" of the neocortex—the new brain—are actively connected in at least one way to the reptile-demons-of-the-deep in us, in our old brain, through electro-chemical-chimerical pathways in which dance our dreaming energies, dowsing us with demons and dreads, dogging us with paleomammalian visions from the "smell-brain" or limbic system, imaging our internal evolutionary archive in a glorious, communal, brain-purging, and ecstatically sacramental nightly game. Dreaming is a biocultural game we must play: as mammal need because without dreaming we soon lose temperature control and other functions of our bodies and die; and as mammal delight because we are also the stuff of which dreams are made, and every now and then comes a dream not just from the inner brain cleanser but from a source capable of arousing the soul, and that dream demands attention to our inner life (Halton 1992:119–39).

Consider *play*. We all play, so much so that Johannes Huizinga ([1938] 1971) characterized humans as *homo ludens*, the human player. The "higher" the mammal, the more it plays—at least until the increased work ethic of agricultural civilization,

and then more recently, the modern, rationalizing work consciousness, bent on its clockwork. Yet those transformations of consciousness, the forebrain foam of human cerebration, exist on the much deeper play consciousness of our hunter-gatherer, primate, aping-around bodies. And playing is a way of being out of your body in its actual environment and into your play body playing wherever it will. When you play that you are an animal, whose body is it in the play? What is the bodily meaning of being cat-dog-bird-bear? Again, as Shepard (1986b) pointed out, the animals are truly the mind's first eye, the first Other through whom we became human, not only by close observation and hunting but also through ritual and play enactments, participations in which we "internalized" the life of the animal.

The self-transcending body-mind also manifests through semiosis more generally, our communicative capacities, minding into matter. I am here, literally in transaction with you in these word signs, truly and in reality out of my body, though not out of my mind (one hopes, dear reader!). The "out-of-body experience" of the shaman, dancing-trancing-dreaming to inner realities of psyche and brain not available to verbal consciousness, journeys that elicit condescending rational explanation in modern materialist consciousness, is only one of the ways. But to deny the out-of-body experience, oh, that is sure suicide for bodies designed to transcend themselves, as ours, I claim, are.

What are shamans, who traditionally are trained to inhabit those image-laden liminal zones of dream-consciousness not available to linguistic mind, if not those creatures living the signs between the human and the greater inner and outer worlds of life and spirit? The shaman is intermediary between worlds, a healer whose job description is the connection and periodic reconciliation of those worlds. This involves a great awareness of medicinal plants, as well as of emotionally medicinal ritual practices. When the clan is screwing up, the locus of its problems is felt to be in its relation to the larger life in which it is embedded, and the shaman is the intermediary through whom things are put right. Today we like to say "individual" far more than "clan" or "family," and psychological far more than "psycho-environmento-spiritual," but the same role can be found today, whether we call it therapist or reverend (Abram 1997; Keeney 1999, 2003; Shostack [1983] 2000). Take the psychotherapist Leslie Gray's view of ecopsychology as incorporating selective techniques of shamanism. Despite only including partial aspects, it still includes as necessary "the worldview of shamanism—that health is defined as a balanced relationship with your habitat, your ecosystem. This kind of relating empowers you as well as the ecosystem" (Gray 1995:181).

What if the modern era and its earnest scientists have been unwittingly working for the myth of the machine, projecting the subjective clockwork culture of their time onto the objective universe, truly discovering with the precision of Blake's painting of Newton, the truth of the single-visioned part, while sacrificing the vision of the whole reality? Blake pictures Newton utterly engaged in *The Ratio*, bent over and fixated on his compass, oblivious to all-surrounding life.

The culture that produced *The Origin of Species* in 1859 and decades of debate over it also had a viability rate at two years for newborns placed in orphanages in the United States of about zero percent. They almost all died, not from lack of nutrition but from simple lack of touch, a problem that also manifested in European hospitals. As Ashley Montagu (1986:97, 99) stated, “As late as the second decade of the twentieth century the death rate for infants under one year of age in various founding institutions throughout the United States was nearly 100 percent. It was in 1915 that Dr. Henry Dwight Chapin, the distinguished New York pediatrician, in a report on children’s institutions in ten different cities made the staggering disclosure that in all but one institution every infant under two years of age had died. . . . What the child requires if it is to prosper, it was found, is to be handled, and carried, and caressed, and cuddled, and cooed to, even if it isn’t breastfed.” It wasn’t until the late 1920s that medical practitioners began to understand the life-and-death importance of touch for newborns. Why would we think that a culture so disengaged, a bubble boy culture so literally out of touch with life in caring for infants, should be less out of touch in its understanding of the social realities involved in evolution and human culture?

## ECOLOGICAL MINDING MATTERS

*The shapes of beauty haunting our moments of inspiration . . . [are] a  
people older than the world, citizens of eternity.*  
—William Butler Yeats

What mysterious creatures we are, who take time and space and transform them into tangible memories in our makings and doings. We mind matter into being. We were minded into being ourselves, following an odd trajectory of increasingly prolonged neoteny. The more childlike we became, the more plastic our learning capacity became. That increasing learning capacity found itself bigger brains, literally more convoluted. But those big brains required an “exit” strategy to be born. We needed to brain ourselves prematurely into the world, completing brain growth in the first two years of life that was undergone in utero for most other mammals.

We minded our way to becoming true children of the earth, dependent on biosocial nurturance to complete the self-construction of our brains. “The milk of human kindness” found through the touch and gaze and empathic bonding and then separation from the mother concerned far more than nutrition, it involved the completion of a brain capable of attuning to and loving life.

That trajectory required an increasingly omnivorous attention to and engagement with the circumambient signs of life for achieving mature minds, signs that could convey complex information about the habitat from the organisms that conveyed them. That trajectory also afforded us the gift of guessing, of an instinctive power of conjecture, of sensing the gap between the instinctive intelligence of life around us and our own doubting cogitation. We evolved into trackers of life-signs, fully engaged. With

civilization and modern life, we learned, in effect, ways to “disengage” from these capacities, of “progressively” weighting conduct toward rational institutions and modes of conduct. But the sources of engagement remain indelibly and ineradicably rooted in the human genome and in the passages of human development. Eradicate them and you eradicate us.

Contemporary globalizing consumption culture seems to me precisely engaged in disengaging humanity from the primal sources of engagement of the human body-mind. How? Its rules of engagement are to provide virtual substitute forms of emotions, experiences, and relationships in media, diet, and lifestyle, whose effects are to deplete people of their own indigenous sources of engagement, self-originated experience, and identity (Halton 2008). In this sense, modern materialism has been a kind of installation of an “out of body” worldview in a pathological sense, displacing the engaged body-mind by materialist mentalism.

Elephants possess far greater memory capacities than humans, and exhibit mourning. We began writing and making books to enlarge our memories and minds, though Socrates claimed, with good cause, that writing subverts memory and living thought. In effect, one might say that we booked from life, basing beliefs on fetishized texts, which reduced the living quick of life to dead “sacred” histories: literary elephantiasis of the human mind, which it pleases us to call civilization.

Traditional hunter-gatherer peoples, rightly in my opinion, view the intelligence of other animals as greater than that of humans. They understand that the community of instinctive intelligence is our passport to maturity, the original generalized other through which we degenerate monkeys, slackened from our instinctive determinations, found our maturity over evolutionary time through close attunement. They appreciate the relatively greater intelligence of the living ecological mind compared with the human mind, as our sciences have begun to do as well, even if still trapped in the myth of the machine (Halton 2007; Mumford 1970; Shepard [1982] 1998a).

The presence of animals still remains pronounced in the earliest civilizations in stories, myths, and rituals, though gradually fading as anthropocentrism (and especially later in monotheism) makes the human other increasingly central to the mind’s eye, even when projected onto a god. The loss of that attunement to the wild other during agricultural civilizing and especially in the modern myth of the machine is to my mind a key symptom of our lunge toward the finish . . . of the human race. We lack the instinctive maturity that the wild Others provided, as portals to ecological mind without and to our own primate-mammalian-reptilian-stratified brain within.

How can one be aware of the extrahuman parts of the human brain-mind without the direct experiential familiarity with the animals and plants through whose ecological mind we evolved ours? They are the original object of the mind’s eye, as Shepard argued. To put it in more familiar terms, the wild others are the original role models of the generalized other, through whom humans derived the significant symbols of ritual life, dancing and rhythming and singing them, impersonating them, hunting and gathering them, ingesting them, ruminating on them, and incorporating them into human identity and social life. Without the wild Others we are less than human: the

process of “de-animalization” from them, associated with domestication and civilizing settlement, marks the beginning of dehumanization (Halton 2006).

In 2 million years the ape that became us walked a long way. But in becoming civilized in the last 10,000 years, that ape may have walked into a cul-de-sac with a no-exit sign posted: anthropocentrism. Its human-centered and more recently machine-centered simulacra of the wild Others, its deities, heroes, human, and machine conceptions of the universe, religious and scientific, have not only not yet attained the maturity of ecological mind but have done much to destroy it globally (Halton 2007). Should that ape escape its cage (which looks to me doubtful), where will the next 2 million years lead? As D. H. Lawrence (1936:706–7) put it, “Man is a queer beast. He spends dozens of centuries puffing himself up and drawing himself in, and at last he has to be content to be just his own size, neither infinitely big nor infinitely little.”

So where does that leave us? I have argued that seriously considering the various modalities of self, from evolutionary requirements of human development to the social constructions of history and institutions and of personal development, requires a full-bodied understanding of semiosis as the living bridge between mind and matter, biology and culture. To be a self is not only to be an inner community of the generalized other, or “me,” in conversation with the living moment, or “I.” It is also to be involved in broader communities that can be regarded as selves, and of which our relatively individual self is an organ, a member.

Peirce argued that science lives and breathes in the reality of general signs, that nominalistic science needs to reconsider the place of final causality in science, that final causality is logically required, and that it can be viewed as the unlimited community of inquirers to whom all scientific claims and experimental phenomena are addressed, conditionally fated to arrive at the truth of things. Reality is thus intrinsically social, attainable in science through an unlimited community of inquirers capable of self-correcting inquiry into the indefinite future.

Such considerations of the place of real signs—or generals—and their purposes in science, let alone life more generally, raise basic questions about the underlying assumptions of modern civilization that matter is completely separate from mind. What if that entire legacy of the mechanistic worldview has holes in it, such that those qualities of life, such as spontaneity, imagination, freedom, are phenomenal realities of this world falsely excluded by excessive reductionism: a Procrustean bed, lopping life in the name of the machine?

Once exposed, the vast edifice of scientific, materialist civilization reveals its hidden lie: that far from excluding final purpose or entelechy from the nature of things, it has merely replaced the Aristotelian telos with a rational-mechanical one. For what the clockwork of modern consciousness most desires is that which it destroys: our spontaneous life as children of the earth, dreaming into being in the flow of organic time.

Mind indeed matters, matters into being, when one reconceives the basis of mind and matter in the general semiotic philosophy I have outlined here. The modern conceit that mind is reducible to matter, or that mind is utterly ethereal, a mere ghost in the machine, is shown to be an illusion rooted in the false outlook of

nominalism. The reality in which the human body-mind finds itself is a psycho-physical universe alive with signs.

We evolved into human beings by attuning to these signs of ecological intelligence; we developed into agricultural civilization and later the modern mechanical worldview by changing the rules, by assuming that the human mind knew more than the ecological mind on which it depended, and could control it. Yet like the gangster murdered by the mob, it might be said that so-called *Homo sapiens* “knew too much” and may be poised to go down from having lost touch with the life of signs, locked in a ghost-in-the-machine view at odds with nature’s requirements.

The Peircean semiotic outlook, applied to an understanding of social life, provides a new and full-bodied understanding of semiosis as the bridge between mind and matter, and human biology and culture. The biosemiotic approach I have outlined here casts light on the individual as alive in composite modalities of self that surpass the physical creature even while also bodying forth from the organic conditions of the body-mind. Such an outlook reveals that indeed, mind matters, and in ways that suggest much more comprehensive understandings of the nature of the “symbolic” in symbolic interaction than those who consider themselves to be symbolic interactionists have thus far considered. Symbols live, as do signs more generally, as Peirce reminded us. And so do we, through them.

## NOTES

1. Peirce is responsible for resurrecting the realism-nominalism controversy and was already writing about it in the late 1860s. The term *reality*, like many other terms, was inverted in the rise of modern consciousness. It meant a true general for those medieval scholastic realist philosophers who invented the Latin terms *realis* and *realitas*, but came to mean individual particulars of existence in the philosophy of nominalism developed by William of Ockham (1285–1349), and nominalism came to dominate modern philosophy. In denying the reality of signs (or generals), modern “scientific realism,” or positivism, inverted the original meaning of realism (Rochberg-Halton 1983).

Early nominalists, following the *via moderna* of William of Ockham, claimed that reality could be found only in knowledge of particulars, that general laws are fictions or conventions, and that conventions are simply names for particulars, hence nominal. Nominalism in effect created two worlds by driving a wedge between thought and things, then faced the problem of how to put them together, the problem of modern philosophy. Thus arose the great divide that has come to characterize modern culture.

Much in the rise of modern science involves the overthrow of Aristotle: Galileo showed how Aristotle’s idealized physics does not hold up in empirical observation. Thomas Hobbes, schooled by nominalist theology, was impressed with Galileo and the spirit of science, and even met with an old, blind, postcensored Galileo. Hobbes applied nominalism to the political realm, claiming that human social life is but a social contract, or convention, laid over an antisocial nature. This is the inversion of Aristotle’s idea that man is by nature *zoon politikon*, a political animal, determined to live the good life in community. The result is a subnatural theory of nature, incapable of conceiving general relation as real. Modern “realism” is a subnatural theory of nature, sliced from reality by Occam’s razor, and spawned from clock culture. It is the myth of materialism, ticking, with precision, into the nature of things while excluding the general sign relations as the whole from which precise facts are sliced.

2. By the strange meanderings of modern philosophy, George Herbert Mead remained an active presence in sociology while becoming virtually forgotten in philosophy. Even after the reintroduction of Dewey and pragmatism into philosophy since the 1960s, Mead remains marginal in philosophy. This is as unwarranted as its opposite: the overvalued place of Mead to sociologists as the chief representative of pragmatism. I expressed this some years ago as “the Meadian is no longer the mode.” If sociologists were to take seriously the pragmatists’ idea of a community of interpretation as the basis of thought, they could perhaps realize that Mead’s ideas should be understood as part of that larger school of thought. But that would require revamping the textbook-indoctrinated preconceptions that prevail among academic sociologists, whether or not they are symbolic interactionists. I stopped holding my breath for that one a long time ago.

Both Peirce and Mead share themes common to the pragmatists: thought as an internal dialogue, meaning as processual habit, the self as a process of self-controlled conduct, qualitative immediacy or aesthetic meaning as an element of communicative conduct. Mead’s writings stress social-psychological dimensions; Peirce’s primary concerns were with logic, especially the development of logic considered as semiotic. For a more systematic discussion of parallels and differences between Peirce, Mead, and the other pragmatists, see my book *Meaning and Modernity*.

3. Though Mead’s view of mind undercut the great divide, it remains narrower in scope than Peirce’s. Mead (1934:47) held that mind requires significant symbols, the stuff of reflective cognition. But Peirce ascribed mind to signs more generally, not limiting it to a self capable of taking the role of the other but to the “living inferential metaboly” inherent in semiosis per se. A beehive could be an embodiment of mind in Peirce’s view, but not Mead’s, even though the intelligence that evolved the hexagonal cell architecture was not conscious.

In 1908 Peirce (1931–34:6.456) distinguished an argument as “any process of thought reasonably tending to produce a definite belief” from argumentation as involving habits of self-control, so that argumentation is “an argument proceeding upon definitely formulated premises.” Mead’s significant symboling theory of mind would be argumentation in this sense. But beehives and other forms of organic or habitual intelligence, in Peirce’s perspective, are genuine arguments manifesting intelligence and, as such, genuine manifestations of mind. He even introduced a broader category of the “quasi-mind” as a bearer of semiotic information: “Thought is not necessarily connected with a brain. It appears in the work of bees, of crystals, and throughout the purely physical world; and one can no more deny that it is really there, than that the colors, the shapes, etc., of objects are really there. . . . Not only is thought in the organic world, but it develops there. But as there cannot be a General without Instances embodying it, so there cannot be thought without Signs. We must here give ‘Sign’ a very wide sense, no doubt, but not too wide a sense to come within our definition. Admitting that connected Signs must have a Quasi-mind, it may further be declared that there can be no isolated sign. Moreover, signs require at least two Quasi-minds; a *Quasi-utterer* and a *Quasi-interpreter*; and although these two are at one (i.e., are one mind) in the sign itself, they must nevertheless be distinct. In the Sign they are, so to say, *welded*. Accordingly, it is not merely a fact of human Psychology, but a necessity of Logic, that every logical evolution of thought should be dialogic” (Peirce 1931–34:4.551).

4. Norbert Wiley (1994, 2006) has addressed this dialogical nature of the self, as has Vincent Colapietro (1989).
5. Phillip Vannini and Dennis Waskul (2006:188–200) have recently explored transactional, ecstatic, semiotic, and qualitative approaches to the body.

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