

Reality and Semiosis

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A REAL PROBLEM

What is a sign? A starting point does not have to be perfect, so let us start where we all normally start, namely common sense:

[S]ome object sensed that brings into awareness something other or more than itself alone, such as that red octagon most everyone operating motor vehicles today recognizes as a “stop sign”. The driver, upon seeing the octagon, realizes that he is supposed to bring his vehicle to a halt. The red octagon occupies the foreground position of representing to or for the driver something that the driver is supposed to do. There is an object signifying an action for the driver to perform. The action to be performed is the object signified; the red octagon is the sign; the driver is the interpreter of the sign.

(Deely 2014: 389–90)

So far, so good. However, ‘[n]otice that what makes the red octagon *a sign is the relation* it establishes *between* action to be performed and driver. Take away the relation and the octagon remains as a sensible object, but no longer functions as a sign’ (Deely 2014: 390). As a result, the ordinary identification of the ‘sign with some particular sensible object turns out to be seriously deficient when we begin to reflect on the way in which sensible objects happen to become signs’ (Deely 2014: 390). One way of rectifying this deficiency is by conceiving the red octagon as a *sign-vehicle* and defining the whole sign more rigorously as any sign-vehicle that *stands for* something *to* something, where this ‘cooperation of *three* subjects’ is not ‘in any way resolvable into actions between pairs’ (Peirce 1907: CP 2.411).

This definition, while better, generates a problem. Since the action of signs or semiosis is essentially relational, can it still be considered real? Signs are triadic, but there is a longstanding tradition that thinks ‘polyadic properties are metaphysically dubious’ (Marmorodo and Yates 2016: vii). No one denies that we can make true statements involving relations, but the idea that those relations exist in the world meets with resistance. Certainly, in conventional symbols like stop signs, we arbitrarily relate things. However, not all signs are conventional. Moreover, as we shall see in the penultimate section, there is a sense in which even conventional relations have some claim to being real.

Metaphysics is like semiotics: you either do it well or do it badly, but avoiding commitments in that domain is not an option (Brunson 2006). However, when we engage explicitly in metaphysical reflection, we quickly realize that semiosis enjoys a double standing. On the one hand, the action of signs must be relied on to even raise the question of what is real and what is not. Yet, even if one is willing to accept that the conveyance of meaning currently under way (as you read these words) is as real as the ink and/or photons which support it, signs – as relations – are not mentioned in the official vocabulary of science. In a way, this absence is understandable. After all, ‘[w]hat a sentence means [...] has no mass, no momentum, no electric charge, no solidity, and no clear extension in the space within you, around you, or anywhere’ (Deacon 2012: 1–2). It’s not that signs are denied by scientists. The situation is more pernicious; signs don’t even show up on their radar. So, while it is customary to turn to natural scientific theories for a description of what is real, we gather from those sources that electrons are real but signs are not – at least not in the same way. The task, then, is to clarify the difference.

Outside Peirce scholarship, where we find an (over?)abundance of work on realism *versus* idealism (e.g. Champagne 2006; Lane 2018) and realism *versus* nominalism (e.g. Mayorga 2007; Forster 2011), semioticians usually take on their metaphysical outlooks uncritically. This does not mean, however, that metaphysical issues fail to preoccupy semioticians. On the contrary, from the moment the word ‘semiotics’ first appeared in the work of John Locke, semiotic inquiry has been bound up with metaphysical concerns (Armstrong 1965: 379). Since ‘[e]very time there is possibility of lying, there is a sign-function’ (Eco 1976: 58), we find a recurring preoccupation with whether the action of signs blocks (Hart 2000) or enables (Fairclough et al. 2002) genuine knowledge of reality. In fact, Thomas Sebeok went so far as to make it semiotics’ ‘main mission to mediate between reality and illusion [...] and to search for the reality that may, after all, lurk behind that illusion’ (1986: 77–8; cf. Copley 2010: 3). Yet, despite the prominence of these concerns, comparatively little work addresses whether semiosis exists in its own right.

I have elsewhere toyed with the idea that semiosis *is* reality (Champagne 2015b). My verdict is that, when such a worldview makes ample room for potentially interpreted phenomena (Pihlström 2010), it is not nearly as implausible as it seems. Clearly though, the question of semiosis’ reality cannot be skipped. After all, if there is no such thing as the action of signs, the essays in this collection are essentially pointless. It therefore makes sense, as a metaphysical preamble, to inquire into the reality of semiosis itself.

SURVEYING SOME POSSIBLE STANCES

Inquiring into the reality of semiosis requires us to specify what we mean by ‘real’. Let us therefore define reality as ‘that whose characters are independent of what anybody may think them to be’ (Peirce 1878: CP 5.405). This is sensible enough. Yet, as long as reality is deemed mind-independent and semiosis is deemed mind-dependent, semiosis will be excluded from reality. So far as I can see – and this chapter does not pretend to have the final say on these matters – there are three basic ways to respond to this exclusion:

1. One can bite the bullet and accept that semiosis is not real in the mind-independent sense.
2. One can retain the view that to be real is to be mind-independent yet show that semiosis is indeed mind-independent, thereby securing its status as real.
3. One can reject the view that to be real is to be mind-independent.

Stances in semiotics can be fruitfully classified according to which of these responses they favour. It is not, however, a matter of personal preference. Far from it, in order to be justified, each stance has distinctive work to do:

- 1'. Since the action of signs must be relied on in order to adjudicate debates about what is real and what is not, one must show how denying the reality of semiosis is not self-defeating.
- 2'. One must show how, exactly, semiosis is mind-independent.
- 3'. One must show how the mind-independent construal of reality can be rejected without lapsing into an implausible view of reality as wholly fabricated.

I propose to look at each of these argumentative trajectories in turn. My conclusions will be that 1' cannot be shown whereas 2' and 3' could, with some work, be rendered tenable.

I want to make a brief methodological remark before I proceed. Reflections on reality are as old as the written record, so there is a vast array of terms to choose from. For instance, Peirce (c.1902: CP 6.349) thought he could draw a distinction between 'existence' and 'reality'. However, this idiosyncratic twist is found nowhere in mainstream metaphysics, where assigning different meanings to those terms is actually seen as a source of philosophical confusion (Ney 2014: 34). A metaphysical inquiry can thus be hindered when it tries to upend, not only the premises, but also the terms that govern conversations on these matters (for a case study in this, cf. Champagne 2008). Jargon does not always help and naming is not arguing. So, whenever possible, this chapter will opt for simple words to express its ideas and arguments. Given that questions about reality – and this book – concern scholars from many different disciplines, a policy of skipping needless terminology seems especially fitting.

ARGUMENT 1: SEMIOSIS MUST BE REAL, BECAUSE ITS DENIAL IS SELF-DEFEATING

As Rossella Fabbrichesi explains, when we talk about reality, we refer to it either as a whole or as the part 'that is before me while I examine it' (2018: 5). As finite creatures with finite means, we are often wrong in our attempts to correctly classify/identify a local region of reality. I may, for instance, think that a distant animal is a cat when in fact it is a dog. In Peircean parlance, the cat wrongly envisioned would be an 'immediate' object of my visual signs, whereas the dog 'whose characters are true of it independently of whether you or I, or any man, or any number of men think them as being characters of it, or not' (Peirce 1907: EP 2.409) would be the 'dynamic' object (Pape 2015). Although the possibility of error requires us to justify why we think we know a subset of what is real, our recognition of reality's presence as a whole does not stand in need of justification. Whatever mistakes one may make, *something* is out there. We may thus take as our point of departure the recognition that 'there is being because we can pose the question of being, and this being comes before every question, and therefore before any answer and every definition' (Eco 2000: 19; cf. Corrington 1987: 389).

This recognition of reality writ large nevertheless leaves many specific questions unanswered. An 'ontology' is 'an inventory [...] of what genuinely exists without

redundancy – for example, what objects, properties and kinds there really are’ (Baker 2019: 4). As Willard V. O. Quine put it:

A curious thing about the ontological problem is its simplicity. It can be put in three Anglo-Saxon monosyllables: “What is there?” It can be answered, moreover, in a word – “Everything” – and everyone will accept this answer as true. However, this is merely to say that there is what there is. There remains room for disagreement over cases; and so the issue has stayed alive down the centuries.

(Quine 1948: 21)

So, looking at our particular case, does semiosis exist?

In his concluding remarks to the very first world congress in semiotics, Eco cut the Gordian knot of ontology with a blunt inference: ‘During these six days we have spoken about semiotics. Therefore, semiotics exists’ (1979: 246). As Eco correctly noted, this terse argument relies on an implicit premise, which we might reconstruct as ‘Whatever people talk about (for a sustained duration) exists’. So stated, this premise is hardly acceptable, since counter-examples abound. We cannot, for instance, conjure the Loch Ness monster into existence simply by holding a colloquium on that cryptid. Eco was therefore careful to talk about the existence of *semiotics* (the discipline) not *semiosis* (the activity). It may be plausible to infer that a discipline exists simply by having adherents (Searle 1997), but this social existence does nothing to assure that what the discipline is *about* also exists.

There is nonetheless a kernel of wisdom in Eco’s remark. Humans may have held their first concerted academic reflections on signs in the twentieth century, but humans have been using signs long before that. Insofar as semioticians generate signs about signs, their work counts as an instance of semiosis – albeit a two-ply action of signs (Deely 2015: 32fn3). This very act of questioning the reality of semiosis thus seems to provide the answer it seeks. How could semiosis fail to be real, if one must depend on the action of signs in order to render doubts about its presence intelligible?

Consider, by analogy, the question ‘Is speech possible?’ Clearly, one cannot *utter* this concern without answering it in the affirmative. A ‘speech-skeptic’ could perhaps stay silent and retreat to a written medium in order to express her doubts about the existence of voices. Ludwig Wittgenstein (1974: sect. 7) famously explored the (‘quietist’) possibility of alluding to *showing* what one cannot *say* (Legg 2008). Contrary to the received narrative (e.g. Lee 2011), when Wittgenstein did this, he ceased being a philosopher of language, insofar as philosophy of signs is distinguished from philosophy of language precisely by admitting non-verbal (iconic and indexical) acts in its repertoire (Champagne 2014). However, for that very reason, the sweeping question ‘Do *signs* exist?’ leaves no room for any retreat. Doubt signs – and you can no longer express your doubts, even to yourself (Colapietro 1989; Raggatt 2010).

A more promising formulation of Eco’s remark, then, might be to say that ‘one must defend the reality, not just of an ontology, but of whatever the defence of that ontology presupposes/utilizes’ (Champagne 2015b: 532). The central argument of this first section can thus be put like this:

1. Premise: The denial of signs is a stance that must be defended.
2. Premise: No defence (of anything) can take place without involving signs.

Therefore,

3. Conclusion: The action of signs can only be denied by being confirmed.

The attempt to drop signs from our considered picture of reality thus seems impossible to defend. While a reductive account might be feasible, eliminativism about signs is a non-starter. Indeed,

[s]ome theses are in conflict with their own presuppositions, so that the implications of their truth for the sort of theorizing being done by their advocates is epistemically disastrous. The argument that eliminative materialism is self-refuting is one argument in this vein that has frequently been made. [...] The truth of the eliminativist thesis would, according to this argument, make nonsense out of the activity of articulating, asserting, or defending the thesis of eliminative materialism.

(Reppert 1992: 379; cf. Baker 1987)

So long as a scientifically informed view of reality depends on the action of signs in order to be discovered, conceptualized, communicated, tested and consensually accepted, that scientifically informed view will have to countenance the action of signs in some fashion. Translated into the only terms that it officially accepts, a matter-only worldview would amount to – not arguments and rational appeals to evidence – but rather clashes of matter, followed by more clashes of matter and so on. Eliminative materialists who gather in a conference room to ‘defend’ their view produce only wind, not signs. Surprisingly, then, we *can* argue that ‘We have spoken about our preferred subject. Therefore, *semiosis* exists’ (to paraphrase Eco 1979: 246).

This self-confirming status is nevertheless muddled by the fact that, traditionally, the hallmark of the real is mind-independence. This is the construal that, in ordinary language, makes the adjective ‘real’ an antonym to, say, ‘imagined’. So, if semiosis involves your mind – and a great many minds besides, given the shared code needed to decipher these symbols – then semiosis does not seem to exist as bluntly as things like rocks and chairs. How *could* signs figure alongside electrons? This tension will arguably be felt less forcefully when one endorses an ontology, not of matter, but of processes (Whitehead [1929] 1978), patterns (Ross 2004), structures (Ladyman et al. 2007) or relations (Dipert 1997; Ladyman 2016). But, if one has already settled the question of what is real with some version of materialism, a sign-inclusive ontology can be hard to envision.

It was not always so. The ancient conception of symptoms, for example, did not make signs and electrons such strange bedfellows. While it makes sense to turn to well-confirmed science for reliable insights about what is real, we should recall that ‘inference by signs [...] was a topic of great concern among the post-Aristotelian philosophical schools, in that semiotic inference constituted one of the cardinal elements of scientific procedure’ (Manetti 2002: 283). So, if we look carefully at what it means to be a sign, we see that the various things that specific sciences countenance are discovered and confirmed via signs. This is the case when small things are detected via their impact on measuring instruments or when large populations are known via samples. Despite variations in these cases, ‘what is essential to the sign is not how it is experienced [...] but that it make present something more than itself’ (Deely 2001: 406). The readings on an instrument dial stand for something more than those readings, as do samples collected. For example,

[a]natomists may have to decide whether a dark spot in a micrograph was caused by a staining artifact or by light reflected from an anatomically significant structure. Physicists may wonder whether a blip in a Geiger counter record reflects the causal

influence of the radiation they wanted to monitor, or a surge in ambient radiation. Chemists may worry about the purity of samples used to obtain data.

(Bogen 2017: sect. 6)

Instruments and organs can malfunction, but since a faculty is not its exercises, this possibility of error is insufficient to bar the possibility of success. Consider, for instance, that

I am an imperfect dart thrower. Hence, on the whole, I only sometimes hit the bull's eye. But, in any given shot, it is clear-cut whether I have or have not landed in that inner zone. Likewise, [...] we can acknowledge the fallibility of a capacity like perception while recognizing that, in the good instances, our perceptual organs reveal how things really are.

(Champagne 2015a: 157)

Sceptical exaggerations may be the norm in some circles, but in thinkers like Aristotle we find 'a path-breaking recognition that an argument may lack deductive validity without thereby relinquishing all claim to persuade rational beings' (Allen 2001: 8; cf. Twomey 2019). We can reduce our ignorance by sharing our best findings, but such a gradual approximation of reality would not even be attemptable unless the signs it employs are also real.

Most of the signs prized by natural scientists exploit a causal link between sign-vehicle and object(s), but if what was involved was *only* a causal link, the possibility of erring (which pervades actual scientific inquiry) would make no sense. Hence, in order to be informative, the causal links that crisscross the world must be interpreted. This need for interpretation generates the following worry: If sign-vehicles need to be interpreted in order for them to render the distinctive semiotic service of revealing something more, and if such interpretation is something minds do, doesn't this expel signs from the mind-independently real? It is to this question that I now turn.

ARGUMENT 2: SEMIOSIS IS REAL, BECAUSE IT TAKES PLACE APART FROM HUMAN MINDS

A useful way to introduce this second family of arguments is historical time. The French philosopher Quentin Meillassoux, for instance, makes much of the fact that 'empirical science is today capable of producing statements about events anterior to the advent of life as well as consciousness' (2008: 9). We know, for instance, that life originated on Earth 3.5 billion years ago. Humans appeared about 2 million years ago. Even if those numbers are not exact, they clearly leave a large span of time when no activity (semiotic or otherwise) depended on any mind. Meillassoux thus wonders: 'How are we to grasp the *meaning* of scientific statements bearing explicitly upon a manifestation of the world that is posited as anterior to the emergence of thought and even of life – *posited, that is, as anterior to every form of human relation to the world?*' (2008: 9–10).

Looking closely at Meillassoux's question, something can be prior to any human relation to the world without being prior to the emergence of life. This is the case, for example, with dinosaurs. As the fossil record attests, humans and dinosaurs never walked the Earth at the same time. Now imagine that, in a bid to protect her hatchlings, a dinosaur

roared loudly and a potential predator fled, on account of that sound. Surely such events happened, even though humans weren't around to witness them – much less interpret them in any way. Do we really want to say that, owing to our absence, this event was semiosically 'silent', so to speak? Our current knowledge is enabled by the confrontation between the two dinosaurs that took place long ago, so there is a sense in which this past event had, at the time of its occurrence, a potential to be interpreted by future creatures (not yet born). Thus, were we to flirt with contentious language, we might say that 'signs work as an influence of the future upon the present, and the meaning of the past is shaped by that influence of the future' (Deely 2009a: 207). Such a reversal may be easier to defend when it comes to the physics of photons (Merrell 1995: 229). Still, it seems rather self-aggrandizing to hold that the sound emitted by the dinosaur only became 'menacing' millions of years after the fact, when we humans used our alleged monopoly on sign-creation to imbue this past occurrence with significance.

Ostensibly, life and signs go hand in hand (Sebeok 1988: 1089), so the question of whether semiosis can occur without life is vexed (Higuera 2012; Champagne 2013b). Luckily, the argument considered in this section does not require us to find an instance of abiotic sign-action. It only requires one to find an instance of semiosis that does not involve any *human mind*.

This idea that semiosis is not the sole preserve of humans is gaining mainstream traction (e.g. Skeyrms 2010), but it is still best exemplified in the work of Jakob von Uexküll. Putting into practice the warning that '[w]e are always on the wrong track when we try to judge the world of animals by the standards of our own world' (Uexküll [1940] 1982: 72), the biologist deployed a battery of observations to vindicate the view that 'everything in nature is created by its meaning' ([1940] 1982: 72). Importantly, nothing in Uexküll's account requires a thing or event to be meaningful in a way that humans could recognize and/or care about. The question of what counts as a 'meaning-carrier' is instead indexed to a creature's circumstances, plus whatever species this creature belongs to. Uexküll calls the sum of these species-specific experiential affordances a 'surrounding-world' or *Umwelt*. Hence, in a typical environment like a forest,

[t]he meaning of the forest is multiplied a thousandfold if its relationships are extended to animals, and not only limited to human beings [...]. Let us consider, for example, the stem of a blooming meadow-flower and ask ourselves which roles are assigned to it in the following four *Umwelts*:

1. In the *Umwelt* of a girl picking flowers, who gathers herself a bunch of colourful flowers that she uses to adorn her bodice;
2. In the *Umwelt* of an ant, which uses the regular design of the stem-surface as the ideal path in order to reach its food-area in the flower-petals;
3. In the *Umwelt* of a cicada-larva, which bores into the sap-paths of the stem and uses it to extract the sap in order to construct the liquid walls of its airy house;
4. In the *Umwelt* of a cow, which grasps the stems and the flowers in order to push them into its wide mouth and utilizes them as fodder.

According to the *Umwelt*-stage on which it appears, the identical flower stem at times plays the role of an ornament, sometimes the role of a path, sometimes the role of an extraction-point, and finally the role of a morsel of food.

(Uexküll [1940] 1982: 29–30)

In the examples just given, the flower stem is a brute thing in the world. But, despite remaining constant, that flower ‘stands for’ different objects. These different ‘standing for’ relations are made manifest by the various interpretive effects they engender. The fact that the girl deems the flower beautiful is not merely some private mental image (though it may include that). Rather, the girl’s assessment is made manifest by the public action(s) that it prompts, such as decorating her body with the flower. Similarly, the fact that the ant deems the flower stem sturdy enough to climb is revealed by its decision to climb atop that flower stem without hesitation. Of course, such actions are themselves liable of being taken as signs and interpreted. Semiotic relations thus bind perception and action in an unending loop (Uexküll [1940] 1982: 32).

This view of life and meaning suggests a promising research programme (Anderson et al. 1984) that is markedly different from Ferdinand de Saussure’s view of ‘semiology’ as part of social psychology (Saussure [1916] 2011: 16). Yet, despite its attractiveness, a paradigm that studies non-human signs must contend with genuine limitations. Imaginative empathy to the side, no human can truly see a flower as a ladder, just as no ant can truly see a flower as an ornament. It is not just a matter of having the right perspective or the right background knowledge; it is also a matter of having the right organs. For instance, to know what it’s like to be a bat, one would need a body capable of echo-locating (Nagel 1974). The embodied properties of an organism thus constrain what meaning(s) a thing or event can carry.

Because the limits at hand are constitutive of all experience, ‘[n]o animal will ever leave its Umwelt space, the center of which is the animal itself’ (Uexküll [1936] 2001: 109). Since the individual surrounded by an environment stands to gain or lose from the various actions and occurrences it is embroiled in, that living centre determines, not only what is meaningful, but also what is valuable (Champagne 2011). Among humans for instance, labyrinths provide diversion and/or logical exercise (e.g. Peirce 1908). However, a rat will experience a labyrinth quite differently. Since that environment is foreign to its innate and acquired expectations, being placed in a labyrinth prompts fear and heightened attention (Peterson 1999: 58–61; Champagne 2020: 34–6). Laboratory experiments that employ labyrinths to measure animal behaviour are thus ‘based on the false assumption that an animal can at any time enter into a relationship with a neutral object’ (Uexküll [1940] 1982: 27).

Do these scenarios about dinosaurs, ants, bats and rats suffice to show that sign-action does not depend on human minds and is thereby real? Nothing in the contemporary semiotic notion of ‘interpretant’ requires it to be mental or human (Champagne 2009). Still, what makes the second family of arguments philosophically tricky is the fact that, in the various descriptions of animal behaviour given, humans are always the ones doing the last round of interpreting. John Deely generalizes the conundrum as follows:

We know for sure only that the world continues, as long as we are not the one who dies. And we are pretty sure that, were we the one to die, the world would continue anyway, and that others, whether witnesses to our death or not, or even aware of our death, would find that the world continues, just as we find that it continues when others die. So what is the world? Something at least in many respects, if not in all, independent of our consciousness. And yet this consciousness of which so much of the world appears to be independent is essential to there being a world at all from our point of view.

(Deely 2004b: 2)

It is useful to classify metaphysicians into those who conceive the world as a bowl of jelly and those who conceive it as a bucket of pellets (Danto 1989: xvii; cf. Russell 1956: 39). If, like jelly, ‘all that exists is continuous’ (Peirce 1897: CP 1.172), then some minimal mind-world and mind-mind connection is guaranteed. Peirce called this ‘synechism’ (Esposito 2005), but we have to guard against defining a metaphysical view into rectitude simply by introducing a term. Assuming that genuine reasons for synechism are given, an uninterrupted reality would entail that humans striving to understand sign-use outside their species necessarily contaminate every observation they make. The primatologist Shirley Strum (1990: 15), for instance, recounts how she had to study the social behaviour of animals from the vantage (and safety) of a white Volkswagen van. After a few years, a troop of monkeys had gotten used to the van – though not to the people. The behaviour that the primatologists observed thus bore a trace of this habituation to a human artefact. Naturally, the shortcoming described by Strum could be remedied by switching to, say, a camouflaged hide-out or hidden cameras. Such devices, however, would never alter the fact that the chain of signs about signs always ends with *humans* grasping what the monkeys do. So, while it is tempting to think that advances in biosemiotics can somehow solve age-old metaphysical concerns, ‘[t]he trail of the human serpent is [...] over everything’ (James [1907] 1922: 64).

The observations offered earlier by Uexküll are thus correct but incomplete. Strictly speaking, those observations would have to be reworded as ‘*In the Umwelt of a human we see that in the Umwelt of a cicada-larva, which bores into the sap-paths of the stem of a blooming meadow-flower and uses it to extract the sap in order to construct the liquid walls of its airy house*’, and so on. Deely decried philosophies that are ‘unable to conceive’ how the mind could have before it ‘something that the mind did not make’ (2004b: 4). Although Deely boasted that ‘semiotics in principle does not have this problem’ (2004b: 4), his positive account never achieved a degree of concision, clarity and persuasiveness commensurate with his advertisements. Deely’s mentor, Thomas Sebeok, had a more prosaic outlook on the problem:

[S]upposing that a behavioral segment, say, in a chimpanzee, is registered by the observing psychologist as a sequence of signing gestures to humans or other chimpanzees, and is interpreted by her as a string of communicational sign-vehicles, then that behavioral segment has to be, in the first instance, a product of that observer’s subjective *Umwelt*. In fact, what may constitute a “sign” in the *Umwelt* of the observed organism is inaccessible to the observer. The solution to this seemingly intractable dilemma, according to Uexküll, presupposes that the would-be observer of the behavior of another organism begin by analyzing her own *Umwelt* before she can undertake productive observations of the behavior of speechless creatures. It is by way of such a comparative analysis that we are led straight back into the heart of semiosis in our human world.

(Sebeok 1991: 104)

A view that foregrounds the action of signs throughout the living world (e.g. Hoffmeyer 1996) is quite attractive. But, to secure the ambitious metaphysical claim that semiosis is *human-mind*-independent, we need to suppose that our participation is absent when in point of fact our participation is present. I believe that semiotics has tools to render this combination stable (Champagne 2018). There is, however, a tremendous difference between forgetting that we are always there and remembering that we have to forget that we are always there. Only the latter stance is viable.

There is thus a genuine tension here that cannot be stipulated away. Indeed, how can we hold fast to the recognition that '[a]nything, to be an object, must exist in awareness' – while at the same time acknowledging that 'not everything needs to be known [...] in order to be at all' (Deely 2009b: 8)? Some theorists like Walker Percy (1989) see the triadic nature of sign-relations as a key to understanding the human condition (Perkins 2011). However, 'Thirdness' in Peircean semiotics is whatever comes third – nothing more, nothing less. Hence, 'Percy seems to have thought Peirce's triadic theory somehow said more than Peirce ever aspired to say [...]' (Utz 2018: 30–1). Still, '[i]t seems a strange thing, when one comes to ponder over it, that a sign should leave its interpreter to supply a part of its meaning [...]' (Peirce 1906: EP 2.394). Does this necessary contribution of an interpreter mean that signs are not 'real' in the traditional mind-independent sense? This is what I now want to explore.

ARGUMENT 3: SEMIOSIS DEPENDS ON MINDS BUT IS NEVERTHELESS REAL, BECAUSE REALITY IS NOT ALWAYS MIND-INDEPENDENT

Reality clearly demonstrates a (more or less stable) structure amenable to our (again, more or less stable) understanding. Some patterns are patterns that we find in the world while others are patterns that we put in the world. For example, we *discover* and then detect diabetics, but we have to *invent* hipsters before we can detect them. In his seminal paper 'Real Patterns', Daniel Dennett proposed a criterion for determining when a pattern is truly real and not just made up. A pattern, he argues, is real when it allows for informational compressibility.

To better understand this criterion, we need to recall the circumstances that motivate it. Dennett's goal was to demystify the predictive power of folk psychology. Predictions made using predicates like 'is angry' or 'believes that x' are remarkably successful, despite the fact that they do not rely on brain scans, blood flow rates, palm moisture levels and other material indicators. Instead, '[w]e use folk psychology – interpretation of each other as believers, wanters, intenders, and the like – to predict what people will do next' (Dennett 1991: 29). We interpret others well enough that we know in advance how they will interpret the signs we emit. We do this mostly intuitively.

However, one (if not the most important) of the semiotic endeavors is to explain why something looks intuitive, in order to discover under the felicity of the so-called intuition a complex cognitive process. It is intuitive that I can seduce a lady, a potential partner in an important business, or a corrupt politician, either by saying that I am rich and generous or by offering her or him a titillating dinner in the most luxurious restaurant of the city [...]. It is equally intuitive that probably the dinner would be more convincing than a crude verbal statement. It is not intuitive why all this is intuitive.

(Eco 1984: 9)

Attitudes and beliefs are not material things, so how can a materialist explain the staggering utility of those concepts? 'The success of folk-psychological prediction, like the success of any prediction, depends on there being some order or pattern in the world to exploit. [...] When are the elements of a pattern real and not merely apparent?' (Dennett 1991: 30).

In order to render this question tractable, Dennett turns to information theory. In information theory, an object is said to be compressible when it can be represented by

a representation that is smaller (in informational size) than that object. The following experiment illustrates how informational compressibility relates to debates about reality. A class of university students is shown three empty grids comprised of two rows and thirteen columns. They are told that the grids will soon be filled with letters. Students are then divided into groups. One person from each group is asked to exit the classroom. However, before those chosen students leave, they exchange contact details with their teammates and are told to expect three text messages on their Smartphones. Each message will convey succinct instructions on how to accurately fill the grids with lower-case letters. The first text message will tell them which letters to write in the first grid, and so on. Everyone is reminded that, to keep things manageable, the exercise will involve lower-case letters only. Once the selected students from each group leave the room, those who remain are shown the filled grids (Figure 6.1).

Groups are instructed to craft messages that comply with the following constraints: (1) the messages must allow the receiving student to reproduce the letters with complete accuracy and (2) the messages must have the smallest informational size possible. The notion of informational size admits of a robust mathematical treatment (Shannon 1948; Dretske 1981: 1–62), but for our purposes we can rephrase the second constraint by saying that the text messages must contain the fewest typographical characters possible.

Groups compete to make the shortest message possible. Students are nudged with questions like: ‘Is this really the lowest number of typographical characters that you can use?’ Teammates are encouraged to pool their ideas and carefully edit each text

First object:

g	a	k	d	i	h	t	d	d	w	v	s	p
d	u	e	w	j	g	a	c	x	d	k	e	c

Second object:

a	b	b	b	b	b	b	b	b	b	b	b	b
b	b	b	b	b	b	b	b	b	b	b	b	c

Third object:

a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z

FIGURE 6.1 Visual stimulus.

message before sending them. In so doing, students are collectively testing the limits of informational compression. Since the absent teammate will have to reproduce the full grids of letters perfectly, students are striving to achieve 'lossless' compression (Sayood 2003). So, under these conditions, how low can we go?

Not every string of letters can be compressed. The first object, for example, must invariably be conveyed by a text message of twenty-six letters. No pattern(s) can be discerned, so students eventually conclude that they must reproduce the random series of letters *seriatim*: 'gakdihtd ...' Some letters (like 'd') occur more than once, but instructions on where these letters reappear would take up more space than they would save. The content of the first grid is just too disorderly to be compressed. The second grid ('abbbbb ...') is different. Although decompressing the message as intended by the senders requires mobilizing tacit knowledge, groups are usually able to correctly instruct their missing teammate with the following message: 'a24bc' (the string 'a,24b,c' is a little longer, with the trade-off that it makes errors less likely). The content of the third grid ('abcdef ...') can be compressed to an even greater degree, since students with their Smartphones are usually able to correctly reproduce the full string of letters after receiving a message of only three characters: 'a-z' or 'a2z' (slightly longer successful variants include 'a ... z').

In sum, the first object *cannot* be compressed, whereas the second and third object *can*. Rephrasing this result in terms of the quantity of characters used, the first object can do no better than a 26:26 (or 1:1) vehicle-to-object size ratio, the second object allows for a ratio of 26:5 and the third object can allow a ratio as low as 26:3. Sign-vehicles comprised of fewer characters can still be emitted, but those sign-vehicles would no longer allow a receiving student to reproduce the full grids of letters with total accuracy (this would then count as 'lossy' compression).

Character strings like 'a24bc' and 'a-z' stand for a greater number of characters. Such messages therefore exemplify 'what is essential to the sign', namely 'that it make present something more than itself, something other' (Deely 2001: 406). Even the full repetition of the first object's random letters is a sign, since it indicates outside the classroom what is inside the classroom. In all instances, something (a text message) *stands for* something (a full grid of letters) *to* something (a student). Grasping this 'standing for' relation generates interpretants – in this case the ability to correctly (re)produce the object of the sign on the blackboard without loss. This 'tri-relative influence' between the text message, the blackboard and the person is not 'in any way resolvable into actions between pairs' (Peirce 1907: CP 2.411).

The fact that interpretation seals the deal (or is a 'Third') can make it seem as if interpretation has free reign. Nothing could be farther from the truth (Eco 1990). Groups are free to send whatever they want to their absent classmates, but not all signs will succeed in conveying correct instructions. Indeed, the merit of the various message designs transmitted via the Smartphones is revealed for all to see once the classmates return to the room and fill the empty grids with lower-case letters. As they perform this task, we can verify whether the initial objects were successfully conveyed. Needless to say, the odds of correctly filling each ice cube tray purely by luck would be astronomical.

The lesson to be learned from this experiment is twofold. First, semiosis works. Second, it is *the world*, not our minds, which determines what is or isn't a pattern. Minds may (contingently) be responsible for carrying out the compression/decompression, but the property of compressibility that renders this manipulation possible is outside anyone's control. Dennett thus holds that a pattern is real if there is 'a description of the data that is more efficient' than a detail-by-detail duplication, irrespective of 'whether or not anyone

can concoct' this more efficient description (Dennett 1991: 34). His master argument, then, might be stated like this:

1. Premise: Reality is mind-independent.
 2. Premise: The ability of some patterns to be compressed is independent of any mind.
- Therefore,
3. Conclusion: Some patterns are real.

Since the experiment that I have outlined yields results open to falsification, it can serve as empirical support for this argument's second premise.

Sign-vehicles can represent their objects despite being smaller than those objects. This ability to cut corners explains the continued utility of folk psychological predicates (Champagne 2013a). Just as 'a24bc' gives an interpreter semiotic access to a larger object, a description like 'She is angry' stands for a host of physical symptoms like higher heart rate, flushed cheeks, lower disposition to comply with requests, etc. Although Dennett (1993: 212) was reluctant to engage in metaphysical debates, his compressibility criterion has inspired promising views of reality (Ross 2004). I want to argue, though, that Dennett's principled division of real and unreal patterns needs to be finessed or at least qualified. This is because the experimental setup I have described problematizes the boundary between the mind-independent and the mind-dependent that is taken for granted in the first premise of Dennett's master argument.

To see how that boundary can be blurred, consider the third object, which consisted of the standard alphabetical sequence. As mentioned, students usually have no trouble conveying these twenty-six letters with only three characters ('a-z' or 'a2z'). Even so, the alphabet must first be memorized in order to be compressed. Now, memorization is a mind-dependent act, if anything is. Apart from convention, there is no reason why this string of (otherwise random) letters should be privileged over others. After all, I could teach my children an alternative alphabet and even compose a memorable melody for that invented sequence of letters. Yet, because the familiar alphabetical sequence 'abcde ...' is demonstrably compressible, it fully satisfies Dennett's definition of a real pattern. What are we to make of this?

The alphabet is, we might say, familiar gibberish. Far from being an oxymoron or category mistake, familiar gibberish is a pervasive part of our experiential lives. For example, my partner and I named our second son Louis-Cyr, after the famous *Québécois* strongman. Using that name in context originally sounded strange, but now the strangeness runs in the opposite direction: I am surprised that the strongman bore my child's name. Names are arbitrary conventions, but habits can make the arbitrary appear non-arbitrary. This phenomenon explains why it does not require much effort for a suitably educated adult to recall the alphabet (in the standard order, at least). Likewise, a stranger will think that my son is *called* Louis-Cyr, whereas my partner and I cannot help but think that he *is* Louis-Cyr.

This sort of reification may look misplaced, but from a cognitive and evolutionary standpoint it is tremendously useful, since it allows for informational compressibility when there is no pattern to be compressed. The importance of this phenomenon cannot be overstated. It may, for example, be at the root of the so-called Sapir-Whorf hypothesis, according to which the categories of one's natural language condition what one can and cannot detect in the world (Sapir 1929: 209). Even if we reject the strong version of this hypothesis, we still have to explain puzzling bodies of cross-cultural data (e.g. Everett 2009). Like it or not, there is some wisdom in the claim that '[t]he categories and types

that we isolate from the world' do not 'stare every observer in the face' but must instead 'be organized by our minds' in a way that is reflective of 'an agreement [...] codified in the patterns of our language' (Whorf 1940: 213–14; cf. Champagne 2020: 78–9). While critics who think the Sapir-Whorf hypothesis is 'wrong, all wrong' (Pinker 1994: 57) recoil from the suggestion that conventions render some worldviews incommensurate, it might be more productive to focus on the real culprit, namely habituation (the Peircean distinction between legisigns and symbols, though often conflated – e.g. Danesi 2007: 176 – has the merit of recognizing that all conventions involve habits but not all habits involve conventions).

When students outside the classroom receive the text message 'a-z', they are triggered to recall a piece of knowledge that was committed to memory in long form. The problem, however, is that this prior learning and recollection play no part in their conscious awareness. That is the whole point of habituation, which reduces what we must consciously attend to (Prinz 2012). So, while we are adept at unpacking signs like 'a24bc' and 'a-z' into strings of twenty-six tokens, our success at both tasks occludes rather than reveals the genuine ontological difference between these two objects. For 'a24bc', grasping the type 'b' along with the multiplication hint '24' suffices to generate all the tokens required ('b, b, b, b, b, b, ...') between the stand-alone 'a' and the stand-alone 'c'. A sequence of repeated tokens is as orderly as it gets. By contrast, not only is the sequence of letters between the bookends of 'a' and 'z' completely random, its twenty-six distinct tokens are of twenty-six different types. Hence, in theory, the third object should be the *least* compressible. But, in practice, it proves to be the *most* compressible. This is a reproducible result that anyone who runs the classroom experiment can confirm.

How should we gloss this surprising result? Lynne Rudder Baker provides a helpful diagnosis of what is going on:

[M]ind-independent phenomena may be just as genuine or as 'real' as mind-independent phenomena. Many (perhaps all) physicalists take mind-independent phenomena to be ontologically superior to mind-dependent phenomena. I disagree: Temporally prior, yes; but we should not confuse temporal with ontological priority. An entity *x* is ontologically prior to *y* only if *x* has greater ontological significance than *y*. Mind-independence does not confer ontological significance. (This seems obvious if you think of the time right after the Big Bang: the entities and properties that existed then presumably were mind-independent, but not more ontologically significant than artworks and artefacts that exist today. Artefacts – say, robots – could not exist in a world without minds, but they have no less ontological significance than the atoms and gases that existed in the first minute after the Big Bang.)

(Baker 2019: 6–7)

To be clear, one cannot squeeze the alphabet into three characters or unpack the resulting abbreviation without learning. Such compression and decompression thus depend on temporally prior events. Still, the fact that mind-dependent patterns can experientially masquerade as – and provide the same informational benefits as – mind-independent patterns shows that 'the sorting out of which-is-which is a problem rather than a given' (Deely 2004a: 35; cf. Champagne 2020: 159). This difficulty in telling apart the conventional and non-conventional confirms our starting realization that hand-waving allusions to reality's reality, while true, offer little guidance when it comes to local ontological claims.

REAL WORK TO BE DONE

Let us recap the problem that set our inquiry into motion. Given our routine reliance on signs, it would be bizarre if the action of signs turned out to be unreal. Yet, once we ask in a deliberate way whether semiosis is real, we find ourselves having to define what ‘being real’ consists in. One plausible definition is that reality is whatever does not depend on any mind. However, despite (or rather because of) its pervasive role in our lives, semiosis seems to get excluded from the sphere of the mind-independently real. I have catalogued three possible responses to this exclusion.

The first response consisted in holding that semiosis must be real, because denying the reality of signs is self-defeating. This self-confirming status seems to imply that semiosis is the very means by which we partition the mind-independent and mind-dependent. Further work would need to clarify this ontological neutrality (Deely 2009b) or priority (Bains 2006).

The second response consisted in identifying an instance of sign-action that is mind-independent. Instead of searching for abiotic semiosis, a more parsimonious approach is to ask whether we want reality to be what exists apart from minds in general or apart from human minds specifically. If we adopt the latter view, and if the action of signs can be shown to take place in the non-human realm, this would show that semiosis does not depend on us. Further work would need to explain how humans can interpret all this while putting themselves out of the equation, so to speak (Champagne 2019).

The third response consisted in saying that, despite its initial plausibility, the mind-dependent and mind-independent division is not clear-cut. This is because some conventional patterns can be informationally compressed in ways that are practically indistinguishable from genuinely mind-independent patterns. Further work would need to clarify how the mind-dependent/mind-independent divide can admit of such hybrid cases (Khalidi 2016).

I have deliberately stayed silent on which of these responses is best. This is because, whatever argument one favours, more needs to be done. In addition to the specific tasks listed in this conclusion, we would have to ascertain in what respects the three families of arguments surveyed are compatible or incompatible. Since, as warned at the outset, this chapter did not exhaust all that could be said, we would also need to identify arguments that do not fall neatly within those families. Hopefully, the present contribution has cleared the way for such future work.

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