

are always already ours (Glaserfeld 1990). There is nothing 'external' to language, or, more correctly, what is external to language is the other side of the internal [...].” (Emphasis in original)

« 8 » What Gasparyan is saying is that there is no world beyond language in the sense that I have described above. Worlds arise for observers and create the observers, just as the observers create those worlds. The mystery of what can appear in those creations remains. It is a beautiful metaphor to imagine a world that exists beyond language, self and consciousness, but what we genuinely mean by this is a world of possibility for us and for our relationships. We have never separated from that world and made it objective. We indicate the unity of our own experience. With this point of view, the objections to the circularity vanish and the world becomes an eigenform for itself. The world becomes a sign for itself by the very language that creates and is created by that world.

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Breaking Out of the Recursive Loop with Cognitive Semiotics

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> Abstract • Gasparyan sketches a semiotic theory where world, mind and language – the latter a stand-in for all semiosis – collapse into one “recursive” whole. In contrast, cognitive semiotics differentiates life-world from subject and perception from signification, as well as between different semiotic systems, of which language is only one.

Handling Editor • Alexander Riegler

« 1 » I find Diana Gasparyan’s opening sentence to be much too flattering for semiotics, since, as suggested in the first line in the abstract, there are literally dozens of semiotic “branches,” most of which are incompatible concerning fundamentals like the definition of semiosis, its main level (from cells to culture), and its ontology (realist, conceptualist, constructivist, etc.). The basic divide is between those who trace their ancestry back to Ferdinand de Saussure’s language-based “semiology” and those who identify with Charles Sanders Peirce’s much more general “unlimited semiosis” (§33). However, even within these schools there are such strong disagreements that one could be excused for thinking that semiotics as a whole resembles the Tower of Babel (Zlatev 2003). The situation has not been helped by semioticians’ exaggerated claims and frequent disregard for empirical evidence (Sonesson 2007).

« 2 » Cognitive semiotics emerged out of a need to redress this state of affairs, placing *empirical* constraints on semiotic speculations with the help of cognitive science (Daddesio 1995), and *philosophical* and *methodological* constraints with the help of phenomenology (Thompson 2007; Sonesson 2009; Konderak 2018). Researchers typically triangulate first-person, intuition-based methods, with third-person, detached observation and quantification, combining these with second-person, intersubjective methods (Zlatev 2015). There are various

theories within cognitive semiotics, but a common feature is to interpret semiosis as *meaning making* at large, corresponding to the phenomenological concept of *intentionality*, and just like the latter, to distinguish various kinds: from pre-conscious operative, through perceptual, to signitive and linguistic, with only the latter two involving sign use proper (Zlatev 2018).

« 3 » Gasparyan sketches an attempt at synthesizing yet another semiotic theory, starting from Peirce (§§3–5), adding a Saussurean element of inter-sign relations (§8), and ideas on the “circular” relation between sign and object from Alexander Kravchenko (§33) and Humberto Maturana (§36), with too much emphasis on *language*, from the perspective of cognitive semiotics. Gasparyan relates her semiotic theory to the mathematical concept of eigenforms, i.e., the recursive application of a function to its own output, in part based on the work of Louis Kauffman, who summarizes the main idea as follows:

“ In this view, the observer does not stand outside the world and ‘see’ it. Rather, what is seen is a token, an eigenform, of the recursive participation of the observer in a world where there is no separation of the observer and the observed.” (Kauffman 2005: 149)

« 4 » There are elements in this theory that cohere with cognitive semiotics, such as emphasizing the role of the *interpreter* – beyond the Peircian “intepretant” – in signification (§19), the highly dynamic nature of semiosis (§24) and the reciprocal relation between subject and world (§45), rendering the embodied subject a *being-in-the-world* (Merleau-Ponty 1962). However, radical claims like the following are untenable for cognitive semiotics:

- “Linguistic semiosis and the multiple meanings generated by it are the very world that human beings can cognize” (§36);
- “‘Inner objects’ also arise as forms possessed by the operators of signification: our thoughts, feelings, conditions of consciousness, and lastly, our own ‘I-thoughts’” (§38);
- “[S]emiosis is an eigenform that creates the world in itself and through itself” (§52).

The problem is that such claims presuppose the validity of the following four statements, each one of which is questionable, as I argue in the following four paragraphs:

- All meaning making is (based on) sign use;
- Consciousness derives from sign use;
- The relation Sign-Object is “circular”;
- Language epitomizes sign use.

« 5 » All living beings engage in enactive sense-making with the environment, making the latter imbued with significance (Thompson 2007). This kind of “structural coupling,” however, must be distinguished from the noetic intentional act of *perception* that only some embodied subjects are capable of, as it is this that first brings forth a *Lebenswelt*, a meaningful *life-world* of corporeal existence. Yet, this is still only significance (experience), and not significance (communication). The latter manifests itself for nearly all animals (including us) through dedicated signal systems, such as alarm or food calls (Hurford 2007). Only the *Homo* genus evolved the ability to use *signs*, which presuppose the clear *differentiation* between expression and denoted object and the awareness of the *directionality* of such signitive intentionality (Soneson 2007; Zlatev 2018). In the case of signs like words, gestures and pictures – but not in signals like stimulus-response associations – the expression mediates, and in a general sense *represents*, the object and not vice versa (Zlatev, Zywiecynski, & Wacewicz 2020). Converging empirical evidence strongly suggests that this took place somewhat over 2 million years ago with *Homo ergaster/erectus*, based on an adaptation for *bodily mimesis*, allowing complex tool production, teaching and communication through pantomime (Donald 2001; Zlatev 2019). Linguistic (symbolic) intentionality, where signs are interconnected in complex systems (“grammars”) based on sedimented conventions, is a much more recent biocultural achievement, limited to our own species, apart from a few language-trained individuals like the bonobo Kanzi, and then only to a limited degree (Zlatev 2008a). In sum, meaning making is a complex, multi-layered process. Only some of this is based on signs, while most is not, and rather on direct sensorimotor interaction with the world.

« 6 » Consciousness, in any of the many sub-divisions of this complex concept that have been proposed (e.g., affective/perceptual, phenomenal/access, pre-reflective/reflective) cannot be the *product* of sign use (as understood in cognitive semiotics) as it is rather the *precondition* for it. This is made explicit in the following definition (Zlatev, Zywiecynski & Wacewicz 2020: 5):

“DEF. A sign <E, O> is used (produced or understood) by a subject S, if and only if:
(a) S is made aware of intentional object O by means of expression E, which can be perceived by the senses.
(b) S is (or at least can be) aware of (a).

Even more obviously, consciousness is a precondition for the existence, evolution and learning of *language* (Zlatev 2008b). Gasparyan's reference to the evolutionary literature to support the contrary (§15) is arguably misleading, since what is meant there is that a mind equipped with language would have a “higher” form of consciousness, making some form of co-evolution plausible (Deacon 1997). Could awareness and intentionality themselves be by-products of language? **Q1**

« 7 » From what was argued in the previous two paragraphs it follows that the relation between expression and object is fundamentally *asymmetrical*. Otherwise, it would collapse into a bi-directional association, and signs would lose the key capacity to denote. By claiming that “sign,” “inner sign” and “object” stand in “a *mutually referential connection*, i.e., one exists only by referring to the other; neither the sign nor the object precedes the other” (§32 emphasis in original), Gasparyan is led into a vicious circularity, a semiotic “hall of mirrors.” For cognitive semiotics, the object has precedence, as it is (initially at least) a product of perceptual (or imaginary) consciousness: I see the tree before me before speaking or signing about it. Once it is denoted by an expression in sign use, the tree is bound to be *construed* one way or another: as an “oak” or an “elm,” as *that thing in front of us* (in pointing) or as *that big roundish thing* (in an iconic gesture). It is arguably this construal relation in language, and in sign use more generally, that corresponds to Gotlob Frege's *Sinn* (Zlatev 2016), and not as

an “inner sign” (which would be *Vorstellung* for Frege) but as an intersubjective *sense* of the expression. Note, again, that this is both a fundamentally asymmetric relation and clearly distinct from claims that sign use, and specifically the signs of language, “constitute” “reality” (§36).

« 8 » Cognitive semiotics, as semiotics in general, emphasizes that language is only *one* semiotic system, different from other systems like gestures, pictures and music (Zlatev, Zywiecynski & Wacewicz 2020). Gasparyan states from the onset that the focus of her theory is on “linguistic semiosis” (§6), but then language stands in for semiosis as such for most of the target article, and the strongest claims apply to it, e.g., “the world arranges itself in language, which is the world” (§46). As pointed out above, language is a relatively late evolutionary development, and does not replace the layers of sign use in gesture, and possibly depiction (Green 2014), that come before, and remain largely independent of it. The predominant semiotic ground of language is *symbolicity* (based on conventions/rules), while for gestures this is *iconicity* (resemblance) and *indexicality* (contiguity and part-whole relations). Nowhere in the text does the author acknowledge this basic insight from Peircian semiotics, and a possible reason for this is that the latter semiotic grounds (principles) can only apply if there is independence between expression and object. Otherwise, it would not make sense that the expression *resembles* the denoted object, as in the iconic gesture for tree in the example above, or even more obviously, in the photograph of my wife on the wall and my wife in “reality,” i.e., the life-world. While we should acknowledge again that every expression (e.g., word, gesture, picture, musical theme) will *not* represent the object in its sign-relation in a neutral manner, as a “mirror of reality,” the point is that the object exists in the life-world before it has been signified.

« 9 » In sum, from the perspective of cognitive semiotics, Gasparyan's proposed “semiosis as eigenform” is both too closed in on itself and too undifferentiated. The embodied subject as being-in-the-world is indeed embedded in the life-world, and can be said to co-constitute it together with other human and non-human embodied

subjects (Merleau-Ponty 1962; Thompson 2007). Semiosis as meaning making is universal for all living beings, but only a few of these are sign users, and even fewer are language users (Zlatev 2018). We do not exist “in language,” but in the life-world, using language and other signs to represent different parts of it. As the same time, we do not do so neutrally, as we construe it in open-ended spirals of interpretation. Thus, there are similarities between the constructivism of the author and the position here defended. However, while the first tends to collapse all into a complex recursive loop, or system of loops, cognitive semiotics differentiates: between life-world and subject, between perception and signification, and between different semiotic systems. This gives us not only a richer conceptual apparatus, but greater compatibility with empirical studies of meaning making.

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Linguistic Semiosis and Human Cognition

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> Abstract • Counter to the traditional semiotic view of language as an object used in an instrumental function, linguistic semiosis is seen as constitutive of human cognition, accounting for sapience as the basis of humanness.

Handling Editor • Alexander Riegler

« 1 » Strongly influenced by Ferdinand de Saussure's (1916) semiological concept of sign as an arbitrary, conventionally established bilateral unity of material form and ideal content, European semiotics as the study of sign processes (semiosis) has traditionally focused on the problem of meaning communicated by signs – perceptually present objects, qualities, or events as indicators of something else that may not be perceptually present. For Saussure and his followers, language was the paradigm example of signs organized as a system used to convey meanings in communication. Thus, over the past century, signs have come to be seen mostly as intentional products of sapient organisms (humans), or artifacts with the function of representing aspects of the external world which, thus represented, become information about this world exchanged in communication.

« 2 » Viewed from this angle, semiology sustains Cartesian dualism in segregating humans as intentional subjects identified within the surrounding world from the world itself, which becomes an independent world of objects, things, and events, including language itself as a communication tool. Language becomes part of “external reality,” and epistemologists continue their searches for the criteria that would help determine the meaning of different categories of words, which are also “out there.” This is the foundation of philosophical realism – the belief that objects exist in reality independent of what we, intentional subjects, think of them, and that the job of “true” science is to study these “objects” in order to discover universal truths about the independently existing world and then “express” them in language (for a witty