

A Note on M. Barbieri's “Scientific Biosemiotics”

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A recent article in this journal¹ caught my attention, and prompted me to voice reservations I initially had reservations about voicing. Upon quoting the fairly noncommittal definition of the sign as nothing more than a triadic relation — “A interprets B as representing C”²— Marcello Barbieri questions whether this (Peircean) model is still appropriate for the “extension of semiosis to the animal world and to the entire living world”. That statement, as it stands, is quite puzzling. What “extension” could he possibly be talking about, given the model’s wide applicability? If the definition contained some reference to strictly *human* use, professor Barbieri’s worry would make more sense. But it seems to me that something has gone amiss when one claims that the very thesis which warranted the study of non-human sign-use in the first place is not suited for the study of non-human sign-use.

If ever there was a case of ladder discarding, this is it.

Pondering this issue in greater depth eventually dispelled my puzzlement. When T. Sebeok wrote that “semiosis presupposes the axiomatic identity of the semiosphere with the biosphere”, the official narrative has been that he was carrying semiotics into bold new fields of application. Barbieri, however,³ interprets Sebeok as rather limiting semiosis to a new enclosure. To be sure, this territory is far more expansive than the one Saussure originally envisioned. What matters is not the area allotted, but the fact that in either case the boundaries that were set reflect the comfort zone of a particular theorist, not the internal demands of an inquiry into signs proper. Barbieri,

1. Barbieri 2008.

2. Barbieri 2008: 32, citing from Posner et al. 1997: 4.

3. Barbieri 2008, citing Sebeok 2001: 68.

for example,⁴ produces a generic mathematical function " $f(x) = y$ " and then promptly rejects the view, suggested by Taborsky,⁵ that would describe " f " as an interpretant. No substantive reason is offered, other than that doing so would be queer, and would conflict with the assumption that semiosis is essentially something living things do.

Ask the average person and that person will likely tell you — quite confidently — that signs consist in traffic signals and words. When the overarching notion of sign (as defined solely by a special type of relation) is presented to the public at large (and certain university departments), the standard reaction, in effect, is that "that's just crazy". Nothing has hampered the growth of semiotics as much as its mission of overcoming this prejudice *on principled grounds*, precisely because it requires challenging strongly-held intuitions. It is disheartening, then, to see a biosemiotician declare that since " $f(x) = y$ " does not conform to what he thinks a sign should look like, then the Peircean model is not for him and should be tailored accordingly.

But if in the end the best that one can do is point to certain unforeseen consequences of the triadic model and say "that's just crazy", then what the debate really boils down to is a contest of intuitions.⁶ What's all this elaborate theorizing for, anyway, if unreflective inclinations are invested with a power to veto whatever upsets them? By that standard, Saussure's linguistic angle at least had the virtue of saving more widespread intuitions. Indeed, the grip of "folk semiotic theories" is so implacable that John Deely believes⁷ it "unlikely that the practice of referring to the sign-vehicle simply as 'sign' will ever fall fully to desuetude". Perhaps this is why Deely recently reported⁸ on a "would-be insurgency" whose goal is to "cast away everything that changes the playing field established by Saussure's notion of the arbitrariness of signs". Conservative adherence to Saussure's foundational vision is, in Deely's view, myopic (and I would very much agree).

Still, I fail to see, if one commits a grave mistake by identifying the triadic sign with its vehicular component, how does that same move become somehow praiseworthy when, as in Barbieri's case, what is being latched on to is the interpretant? Professor Barbieri assumes without ado⁹ that "interpretation" is a macroscopic act which only "organisms that have a nervous system" can undertake. Again, most lay people would incline to agree. But "interpretation"

4. Ibid. 33.

5. Taborsky 1999: 601.

6. For a survey of the questionable role of intuitions in abstract inquiries, see DePaul and Ramsey (1998).

7. Deely 2004: 17.

8. Deely 2006: 22.

9. Barbieri 2008: 33.

in semiotics is a technical term, one which is assigned a strict definition, where the term "interpretant" replaces "interpreter", in fact.

Not that there is anything inherently wrong with organisms having nervous systems — I happen to have one myself. But a guiding methodological principle of any inquiry is to first slough-off all that does not directly bear upon the subject-matter at hand. Peirce, a logician trained in the attainment of maximal parsimony, ardently sought to avoid burdening the inquiry into signs with supplementary assumptions which, whether harmless or not, are nevertheless *irrelevant* (much in the same way that a general concept like "negative reinforcement" does not specify if a subject was accidentally or deliberately burned by fire or hit by a stick). Granted that the concerns of biologists are not simply the same as those of a logician; even so, to stipulate as Barbieri does that a sign is interpreted only if the transaction brings into play a nervous system is no better than saying that a sign is a sign only if part of it is spoken (Saussure's pet dogma). Not only does this excess "folk" baggage, while catering to "traditional" usage, do no explanatory work, it latches onto one component of the *triadic* sign at the expense of the others, a move which robs the adjective "triadic" of its very purpose.¹⁰ Barbieri thus defends the need for his code-based alternative only because he unwarrantedly grafts a handicap on the accepted triadic model, which is designed to elucidate any instance of semiosis, cellular or otherwise.

Barbieri opens the inaugural issue of the journal *Biosemiotics* by writing that¹¹ "The first postulate [of biosemiotics] is the idea that semiosis is unique

10. In a similar vein, no one has yet explained to me why, if Charles W. Morris betrayed the essence of Peirce's semiotic by requiring the contribution of an interpreter (see Deledalle 2001), Thomas A. Sebeok is somehow to be hailed as the vanguard of the Peircean project even though he made "being alive" a necessary and sufficient condition of semiosis — no mere "sop" this, but a veritable "buffet to Cerberus" (this remark, by the way, is an inkblot: does it mean a negative reappraisal of Sebeok's semiotic, or a positive reappraisal of Morris?).

11. Barbieri 2008a: 2. Although I've been made plainly aware of growing discomforts with this formula, I have taken it for granted that Marcello Barbieri — an Italian embryologist who currently occupies the position of Editor-in-Chief of the flagship journal *Biosemiotics* — speaks with enough authority to warrant my making some of his remarks the focal point of a brief critical commentary. For the record, here is what comes immediately before the foundational statement quoted: "The differences between the initial approaches, however, have not completely disappeared and survive to this day in the form of different 'schools' of biosemiotics. There is therefore a genuine pluralism in the field, *but also a common goal*. ... Today, there are at least two basic principles, or postulates, *that are accepted by most biosemioticians and that represent a sort of minimal unity in biosemiotics*" (Barbieri 2008a: 2; emphasis added). Moreover, the formulation, I am told, was the fruit of concerted meetings and discussions held in Europe ("guilt by association" is, I'm afraid, a pitfall of association generally). To be sure, that doesn't mean the current playing field is frozen in place, once and for all. But not only do I not see it as *my* business to rescue a project I disavow from its internal hardships, I actually think the idea that "semiosis is unique to life" (ibid.) enunciated by Barbieri captures quite faithfully T.

to life". Casting this assertion in point form gives it an air of being scientific. But that rhetorical effect to the side, the postulate as Barbieri lays it down amounts to nothing more than a combination of unreflective metaphysics and primitive inclinations. As the literature on biosemiotics grows (as such enterprises are wont to do), the corpus' mass will nevertheless leave wholly untouched the fact that at the heart of it all, at least for those who accept Barbieri's construction of Sebeok's view, lies an assumption which is as undefended — and indefensible — as Saussure's assertion that semiotics should study "*la vie des signes au sein de la vie sociale*" (1916: 33) — a tenet which also spawned many journals.¹² Which of these competing "postulates" should one adopt? Well, to echo a famous saying, those who like this kind of thing will find it the kind of thing that they like. Not surprisingly, philosophers of mind hold that representation is inherently a *mental* phenomenon; linguists hold that it is *social*; biologists hold that it is *organic*; etc. So much for the (laudable) thesis that what essentially characterizes a sign is a relation patently indifferent to the 'accidents' that carve up such divisions.

These remarks are not to be taken as an endorsement of "pansemiotism", the view that the universe consists exclusively of an action of signs. The situation is not such that anybody who dares call into question the pertinence of life for the study of signs *ipso facto* thinks rocks talk amongst themselves. Barbieri states matter-of-factly¹³ that whosoever adopts a more liberal construal of interpretation than he does perforce believes that "semiosis exists everywhere in the universe". Such a false disjunction — with a straw man on one side and a promised land on the other — is both uncharitable and self-serving. At any rate, the supposed inference from triadicity to "pansemiotism" does not follow. To say that "A interprets B as representing C" may be noncommittal, but make no mistake: it does not necessarily include everything, and in fact *excludes* a great many things (most notably brute altercations occurring between two things).

Peirce insisted¹⁴ that a representamen must be capable of determining an interpretant which will "assume the same triadic relation to its Object". Thus, any representamen which does its job of "*renvoi*" correctly stains by that very fact its interpretant with this semiotic role, such that the interpretant

Sebeok's original proposal (although, in fairness, Sebeok liked to keep his options open in a way Barbieri's more dismissive comments do not mirror).

12. Asking for a review of the mounting primary and secondary literature on biosemiotics would therefore totally miss the point. It would be akin to a builder who, faced with some ominous cracks in the foundations, adds more storeys to the edifice in the hope of remedying the situation. Such a response, to my mind, is endemic of a bad (Kuhnian) epistemology, which basically holds that one can run a science on a little abduction and lots of ink.

13. Barbieri 2008: 33.

14. Peirce 1903: EP 2.272.

in question is henceforth "capable of determining a Third of its own"¹⁵ and lead interpretation to the same object. This provides non-arbitrary theoretic constraints which robustly rule out candidates. If a sunflower turns westward and a marmot, not wishing to look at the sun, takes the sunflower as an index that the sun is setting, that marmot will be an interpretant *if and only if* some further party (whatever it is) could, without recourse to the sunflower, use the marmot (as a reliable information-carrier) to determine whether the sun is setting. The marmot in this example thereby qualifies as an interpretant — but *not* in virtue of its privileged biological constitution. As for the nondescript "further party", it too must meet this criterion; nothing more is required.¹⁶

All of this can be rigorously established on *semiotic* (not biosemiotic) grounds which abstain from gratuitous metaphysical speculations. Now one may want to criticize all this, and such criticisms may be triggered in part because the theory in question clashes with one's intuitions. But simply reporting the counter-intuitiveness one experiences when contemplating the proposal (i.e., that "that's just crazy") does not suffice. At the very least, such an emotional appeal does not square well with pretensions of scientificity.

Biology is broader in scope than linguistics; no one will dispute that. But directing attention to this uncontested feature and claiming that it somehow betokens an advance only masks the fact that "Semiotics is formally entitled to take possession of a theoretical heritage which has not been borrowed from *outside* for it was born from *inside*" (Eco 1979: 251), such that the predilections of established academic disciplines are irrelevant to a well-conducted inquiry into signs. Sadly, our poorly-institutionalized field has attracted a chaperon once again, as many semioticians now scramble to acquire in biology the credentials and idiomatic skills they would have erstwhile sought in linguistics.¹⁷ In the short span between the decline of the linguistic paradigm and the rise of

15. *Ibid.*, EP 2.273; emphasis added.

16. Likewise, if from a mathematical function "f" no one can ever determine, for any given value of "x" other than an original one, what "y" is, then that function cannot be an interpretant. If "pansemiotism" meant "anything goes", then Barbieri could have just as easily used "1+5+67" as his example. Surely the description of " $f(x) = y$ " as a semiotic triad, whatever its ultimate merit, enjoys greater motivation than saying that "5" is an interpretant in "1+5+67". That a *specific type* of relation (and not others) was singled out by Taborsky (1999) attests to a rationale which is not haphazard, and suggests that such ventures are not completely devoid of *prima facie* interest or promise.

17. See for example Cobley 2008: 517. Just to be clear, this is not because biologists are domineering, but because semioticians have until now had a tendency to be insecure. If a physicist announced to mathematicians (whose abstract toolbox she employs) that they had to abandon irrational numbers because, say, the fact that no straightforward method of computation can be implemented makes such notions spooky, mathematicians would not comply — and this on *principled* (not just Kuhnian) grounds.

the biological one, some of us have been fortunate enough to catch a glimpse of what semiotics could and should be: a confident inquiry in its own right.

I don't want to be misunderstood: a "semiotics of life" is warranted, overdue, and very much welcomed (just as one can carry out a "semiotics of mind" without being mentalistic). In fact, preliminary investigations into the topic have already begun to enrich our view of nature's complexity in a way that cannot fail to capture the attention of semiotician and scientist alike. But if the blueprint put forth in professor Barbieri's article is any indication, all a "scientific biosemiotics" is bound to accomplish is "*bouger le mal de place*".

References

BARBIERI, Marcello.

2008. "The Code Model of Semiosis: The First Steps Toward a Scientific Biosemiotics", *The American Journal of Semiotics* 24.1–3, 23–37.

2008a. "What is Biosemiotics?", *Biosemiotics* 1, 1–3.

COBLEY, Paul.

2008. "Specialization, Semiosis, Semiotics: The 33rd Annual Meeting of the Semiotic Society of America", *Sign Systems Studies* 36.2, 515–519.

DEELY, John N.

2004. "'Semeion' to 'Sign' by Way of 'Signum': On the Interplay of Translation and Interpretation in the Establishment of Semiotics", *Semiotica* 148, 187–227.

2006. "On 'Semiotics' as Naming the Doctrine of Signs", *Semiotica* 158, 1–33.

DELEDALLE, Gérard.

2001. "À la source de la sémiotique triadique", *Semiotic Inquiry* 21.1–3, 211–227.

DE PAUL, Michael R., and William RAMSEY, Editors.

1998. *Rethinking Intuition: The Psychology of Intuition and Its Role in Philosophical Inquiry* (Lanham: Rowman and Littlefield).

ECO, Umberto.

1979. "Concluding Remarks", in *A Semiotic Landscape: Proceedings of the First Congress of the International Association for Semiotic Studies, Milan, June 1974*, ed. Seymour Chatman, Umberto Eco, and Jean-Marie Klinkenberg (The Hague: Mouton), 246–251.

PEIRCE, Charles Sanders.

1903. "Sundry Logical Conceptions", in *The Essential Peirce 2*, ed. The Peirce Edition Project (Bloomington and Indianapolis: Indiana University Press, 1998), 267–288.

- POSNER, Roland, Klaus ROBERING, and Thomas A. SEBEOK, Editors.
1997. *Semiotik/Semiotics: A Handbook on the Sign-Theoretical Foundations of Nature and Culture* 1 (Berlin: Walter de Gruyter).
- SAUSSURE, Ferdinand de.
1916. *Cours de linguistique générale* (Paris: Payot, 1995).
- SEBEOK, Thomas A.
2001. "Biosemiotics: Its Roots, Proliferation, and Prospects", *Semiotica* 134, 61–78.
- TABORSKY, Edwina.
1999. "Semiosis: The Transformation of Energy into Information", *Semiotica* 127, 599–646.