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### Are there polycontextural signs?

1. After having published several dozens of articles about polycontextural semiotics, we finally come to the basic question if there are polycontextural signs. This may sound strange, but the question is necessary. Classical Peirce-Bensean semiotics has a system of reality which includes 10 levels, corresponding to the 10 reality thematics that are constructed by dualization from the 10 sign classes. Since each of the 10 sign classes has a subject-position, taken by the interpretant relation, it is not false to say that the 10 semiotic realities are contextures – and contextures each of which are mono-contextural like the disseminated single contextures of polycontextural logic.

2. However, representatives of polycontextural theory have often pointed out that semiotics is clearly a monocontextural system in which the logical Law of Identity (and the other 2-3 fundamental laws of classical thinking) are valid without restrictions. Now let us have a look at the 10 semiotic dual systems. Amongst them there is one sign class that is identical with its dualized structure:

$$(3.1 \ 2.2 \ 1.3) = \times(3.1 \ 2.2 \ 1.3)$$

True, this looks like identity, but compare this dual system with the following

$$(3.1 \ 2.3 \ 1.3) \neq \times(3.1 \ 3.2 \ 1.3).$$

The latter disequation says:

$$(3.1) \neq (3.1)$$

$$(2.3) \neq (3.2)$$

$$(1.3) \neq (1.3),$$

and we learn that  $(3.1) = (1.3)^\circ$  and  $(1.3) = (3.1)^\circ$  as is  $(2.3) = (3.2)^\circ$ . What did we win by that? We win by that that we can replace the disequality sign by the equality sign and obtain either

$$(3.1 \ 2.2 \ 1.3) \neq (3.1 \ 2.2 \ 1.3)$$

or

$$(3.1\ 2.3\ 1.3) = (3.1\ 3.2\ 1.3),$$

since we have already proven that

$$(3.1) \neq (3.1)$$

$$(2.2) \neq (2.2)$$

$$(1.3) \neq (1.3).$$

It follows that classical semiotics has no identity and is thus polycontextural. The case is just so that the fundamental non-identity of classical semiotics is hidden behind a too low number of contextures involved. Since, if we go from  $C = 1$  up to  $C = 3$ , we have

$$(3.1_3) \neq (3.1_3)$$

$$(2.2_{1,2}) \neq (2.2_{2,1})$$

$$(1.3_3) \neq (1.3_3)$$

and for  $C = 4$  even

$$(3.1_{3,4}) \neq (3.1_{4,3})$$

$$(2.2_{1,2,4}) \neq (2.2_{4,2,1})$$

$$(1.3_{3,4}) \neq (1.3_{4,3})$$

i.e. now, all arrows are turned around. So, from here, the question should not be if there are polycontextural signs, but if there are monocontextural signs. In classical semiotics, polycontexturality is hidden in the triadic-trichotomic structure of a seeming monocontexturality.

3. But let us ask the question what we do, when we write

$$(3.1_{3,4}\ 2.2_{1,2,4}\ 1.3_{3,4})$$

instead of

$$(3.1\ 2.2\ 1.3).$$

Of course, one can say: We localize the sign in one or more contextures, whereby the genuine sub-signs, the identical morphisms, play a special role insofar as they are always located in +1 contexture compared to the other sub-signs. But can signs even be in contextures? What is in a contexture? - Kenograms and kenogram-sequences, so-called morphograms are in contextures. However, in kenograms, not only the contextural borders between sign and object (the three transcendences of the sign, respectively, cf. Toth 2009) are abolished, but also the law of materiality or sign-constancy (cf. Kronthaler 1992, pp. 292 ss.) is abolished (and replaced by structure-constancy). Kenograms are nothing but placeholders for later insertions of numbers, logical values or signs. So, if we have a thing like

(3.1<sub>3,4</sub> 2.2<sub>1,2,4</sub> 1.3<sub>3,4</sub>),

then what we have here is an already filled (hidden) kenogram-structure, filled with sub-signs referring each of them to more than 1 contextures.

On the other side, in Toth (2003), I have tried to define signs directly on trito-numbers, i.e. polycontextural trito-structures, which have filled with qualitative numbers. If you compare a thing like

(0000123)

with the contextuated sign relation above, then the huge difference becomes apparent. But let me avoid getting into more technical trouble and directly jump to the conclusion, which seems to get more and more evident anyway. As Kronthaler once correctly stated, the system of Mathematics of the Qualities (Kronthaler 1986) is, from the standpoint of quantitative mathematics, not even worth a groupoid. Now, a sign is defined on the basis of Peano numbers and the successor (and predecessor) relations according to Complete Induction (cf. Bense 1975, pp. 167 ss.; 1983, pp. 192 [on Peirce's "Axioms of Numbers"]). What then is a sign if it is no longer based on Peano numbers, but on a notion of number that is not even a groupoid? The answer is clear: **Nothing.** *Reduce the notion of sign deeper than on Peirce's fundamental categories, and you find yourself in a rain-forest, where there is absolutely no orientation any more possible.*

How should a sign, whose basic function is to substitute an object (and thereby establish the most important metaphysical border we know) be reduced to a "keno-sign" (Kronthaler 1992, p. 296), which cannot substitute and thus represent and which cannot even present because it is essentially nothing (a placeholder for anything), how could such a thing like a "keno-sign" even exist?

The conclusion of this paragraph is that something insane like a poly-contextural sign (and thus a polycontextural semiotics) cannot exist. However, the conclusions of the former paragraphs were that semiotics is an essentially polycontextural system whose polycontexturality is just hidden for the border case of  $C = 2$  (i.e. monocontexturality).

Now, we finally have the problem clearly lying before us. As nobody can seriously deny that semiotics – unlike logic and any other formal philosophical or mathematical theory - is based on a multiple and irreducible system of reality, nobody can deny, too, that a sign whose primary function is the substitution and representation of an object, can be based on a proto-logical concept which is unable to substitute and represent, which cannot even present (itself), because it is nothing but a placeholder. In the shortest possible way: **Since there is no induction of emptiness, there is no “keno-sign”.**

As we see, we are able to contextuate signs and even prove that there is no eigenreality sensu stricto, because the order of the contextual indices (i, j, k) is turned around to (k, j, i), but what we really do, when we deal with polycontextural (or even monocontextural??) semiotics, is most highly unclear.

## **Bibliography**

- Bense, Max, Semiotische Prozesse und Systeme. Baden-Baden 1975  
Bense, Max, Das Universum der Zeichen. Baden-Baden 1983  
Kronthaler, Engelbert, Grundlegung einer Mathematik der Qualitäten. Frankfurt am Main 1986  
Kronthaler, Engelbert, Zahl – Zeichen – Begriff. In: Semiosis 65-68, 1992, pp. 282-302  
Toth, Alfred, Die Hochzeit von Semiotik und Struktur. Klagenfurt 2003  
Toth, Alfred, Wie viele Kontexturgrenzen hat ein Zeichen? In: electronic Journal for Mathematical Semiotics, <http://www.mathematical-semiotics.com/pdf/Wie%20viele%20Kont.gr..pdf> (2009)

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