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## How deep is the kenogrammatic level?

1. A never specially formulated theorem of theoretical semiotics says that the three fundamental categories (1, 2, 3) are the deepest level of representation of knowledge and at the same time the level which is most equidistant between world and consciousness between which the sign mediates.

2. The question whether semiotics or logic is on a deeper representative level, Peirce answered in favor of semiotics, although he never proved that the logical laws can be formulated on semiotic level. The problem is here what "represent" means. If I take the English sentence "John sleeps in his bed", I can display this sentence by aid of generative grammar with a tree on whose top the sentence stands. The first two branches "represent" the Nominal Phrase "John" and the Verbal Phrase "sleeps in his bed". Additionally, "in his bed" is "represented" by a special node. After all, the English sentence will be "represented" by a Nominal, a Verbal Phrase and an Adverbial. One has the impression that the grammatical "representation" of the sentence is more abstract, but "adequate", this means, the most essential parts of the sentence are "represented" by the grammatical derivation, and the less essential parts are let away. Now, according to Walther (1985), linguistics needs the full system of the 10 Peircean sign classes in order to "represent" linguistic on the semiotic level (which is, vide supra, the deep-most level). Therefore, the semiotic "representation" does not represent the English sentence, but its derivation by generative grammar, and looks like follows: "John" is a noun, as such has to be "represented" by the sign class (3.1 2.3 1.3). "sleeps in his bed" is a sentence lacking a subject and therefore cannot be dicentic, but solely rhematic and is thus "represented" by the sign class (3.1 2.2 1.3). However, miraculously, "John" is exactly the subject needed to "fill up" the rhematic whole, so that we get at the end the semiotic representation (3.2 2.3 1.3). That Peirce originally gave the assertive type of logical sentence as an example for (3.2 2.3 1.3), does apparently not hurt too much, even if "John sleeps in his bed" is, e.g., the answer to a question like: "Did John again prefer sleeping on the sofa?", or the like.

Since semiotics "represents" here the grammatical derivation of the English sentence, however, it must "represent" at least some essential parts of the English sentence, too. However, since it does this only what the subject and the

object or predicate position of the sentence concerns - and this even very artificially - since ANY object can fill up the rhematic gap of a dicentic sign class, so that  $(3.1 \ 2.3 \ 1.3) \rightarrow (3.2 \ 2.3 \ 1.3)$ , it follows that semiotic "representations" cannot "represents" linguistic "representations" of natural language sentences. The natural languages can "represent" the reality, but further "representations" are quickly so far away from the original "representations", that one can without bigger damage just forget them. Isn't it so, that even the grammatical "representation" does not "represent" the original sentence? It says no more as logic does, that "John sleeps in his bed" contains of a subject about which a predicate is uttered. And isn't it so, that in the case of the semiotic "representation" of the grammatical or logical "representation" of a sentence which "represents" part of the reality, the "representation" of this latter reality has become so thin that nobody can reconstruct is original meaning anymore?

3. This is what he have to keep in mind if in semiotics or in polycontextural theory we read about A "representing" B. In Toth (2009), we have, e.g., shown that all sub-signs of a semiotic  $3\times3$  matrix can be "represented" by the qualitative numbers of contexture 2. This idea of going even deeper than the fundamental categorial level and thus violating theoretical semiotic's ground-theorem, seems to be affirmed by the fact, that the three fundamental categories themselves can be "representend" by the one keno-sign of C 1, and that the 27 triadic prime-signs of 3-dimensional semiotics are represented by C 2:

0	1, 2, 3	1-dim semiotics
00 01	$(1.1), (2.2), (3.3) \\ (1.2)/(2.1), (1.3)/(3.1), (2.3/(3.2)) $	2-dim semiotics
000 001 010 011 012	(1.1.1), (2.2.2), (3.3.3) (1.1.2), (1.1.3), (2.2.1), (2.2.3), (3.3.1), (3.3.2) (1.2.1), (1.3.1), (2.1.2), (2.3.2), (3.1.3), (3.2.3) (1.2.2), (1.3.3), (2.1.1), (2.3.3), (3.1.1), (3.2.2) (1.2.3), (1.3.2), (2.1.3), (2.3.1), (3.1.2), (3.2.1) (3.3.1), (3.3.2), (3.3.3), (3.3.1), (3.3.2) (3.3.3), (3.3.3), (3.3.3), (3.3.3), (3.3.3), (3.3.3) (3.3.3), (	3-dim semiotics

4. So far, so good: We thus have here a complete coincidence of number of contexture, n-adic relations and n-dimensional semiotics. However, as we recognize easily, C 1 contains as deepest fundamental category already firstness, according to Peirce in a sign the relation to itself. But where in the kenogram-

matic model would be the place or space for semiotic Zeroness defined as the level of "disponibler ontischer Etwase mit der Relationszahl r = 0, aber der Kategorialahl k = 1 (Bense 1975, p. 66)? According to Bense, there is a presemiotic level of pre-signs, which have the formal characterisites

 $PrS^{r=0}_{k=1}$ 

which are "ausdifferenzierbar", i.e.

 $\begin{array}{c} O^{\circ} \rightarrow M_{k=1}^{\circ} \\ O^{\circ} \rightarrow M_{k=2}^{\circ} \\ O^{\circ} \rightarrow M_{k=3}^{\circ} \end{array}$ 

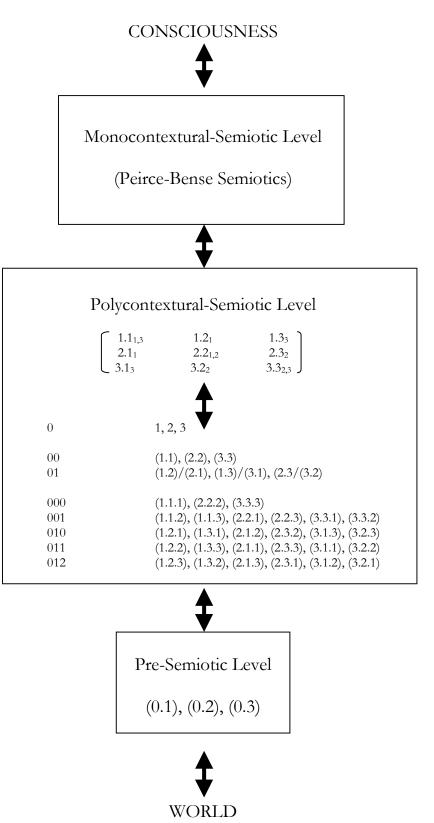
and which populate the intermediary-level between the ontological space and the semiotic space (Bense 1975, p. 45, 65): "Ein unabhängig von jeder Zeichenrelation existierendes, aber mögliches Mittel M<sup>o</sup> hat die Relationszahl r = 0" (Bense 1975, p. 65. According to the Ausdifferenzierungsschema, we thus have

 $(0.1) = \{x \mid x \in \Pr{S \land r(x)} = 0 \land k(x) = 1\}$  $(0.2) = \{x \mid x \in \Pr{S \land r(x)} = 0 \land k(x) = 2\}$  $(0.3) = \{x \mid x \in \Pr{S \land r(x)} = 0 \land k(x) = 3\}$ 

This threefold Ausdifferenzierung of the level of zeroness has no space of "representation" in kenogrammatics, since kenogrammatics starts with the "representation" of firstness – in accordance with the unwritten magic theorem of semiotics, cited in the beginning, that it is impossible to go deeper downstairs on the ladder between world and consciousness.

{(0.1), (0.2), (0.3)} must thus be on a still deeper level than kenogrammatics, constituting what I have called the "pre-semiotic space" between ontological and semiotic space and coinciding with Bense level of "disposable" media ( $M_1^{\circ}$ ,  $M_2^{\circ}$ ,  $M_3^{\circ}$ ). Also note that unlike (1.1), (2.2), (3.3), (1.1.1), (2.2.2), (3.3.3), ..., there is not genuine sub-signs or identitive morphism \*(0.0), since the existence of this monster would violate Bense's theorem that for relational numbers, we always have r > 0. Or differently put: Before 0 could enter a relation with itself, it would have to be r = 1. Or again differently: The notion of "sign of sign ..." is meaningful, but the notion of "object of object ..." is not. An object is a category, not a relation, before it does not enter semiosis.

Therefore, we are forced to draw a model of "representation" of world and consciousness that looks approximately like follows:



WORLD is thus the proper ontological space. The double arrow between the pre-semiotic level and WORLD thus says that already the objects contain the threefold Ausdifferenzierung towards differentiation between form, function and gestalt as a pre-semiotic trichotomy which is transported during semiosis via the disposable media onto the semiotic level of Firstness and is from there firstness inherited to Secondness and Thirdness (cf. Toth 2009a and my 2-volume –work "Semiotics and Pre-Semiotics").

## Bibliography

Bense, Max, Semiotische Prozesse und Systeme. Baden-Baden 1975
Toth, Alfred, Der sympathsiche Abgrund. Klagenfurst 2008 (2008a)
Toth, Alfred Semiotics and Prä-Semotics. 2 vols. Klagenfurt 2008 (2008b)
Toth, Alfred, A semiotics from tetradic prime-signs. In: Electronic Journal of Mathematical Semiotics, <u>http://www.mathematical-semiotics/pdf/</u> (2009)

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