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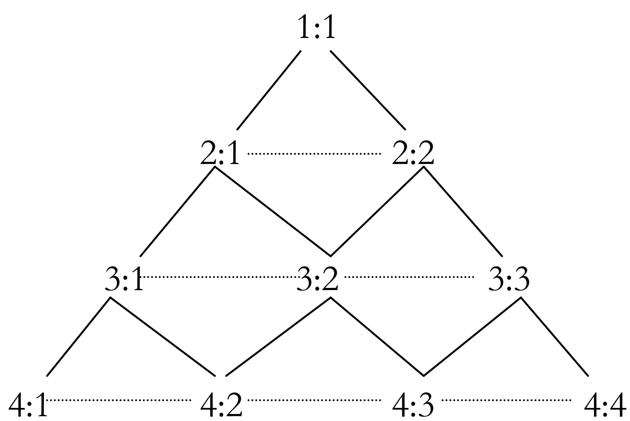
Model of a 3-adic 3-contextural Proto-Semiotics

1. In Toth (2009a) and several other publications, 3-adic 3- and 4-contextural trito-semiotics has been introduced. For deutero-semiotics cf. Toth (2009b).

A proto-number is unambiguously determined by a pair of numbers (m:n), where m is the length of the kenogram sequence and n is the degree of accretion. Therefore, in the proto-structure, only one kenogram can be iterated at a time. This definition as well as the following figure are taken from Günther (1978, p. 258); vgl. Toth (2003, p. 16):



2. Unlike in deutero- and in trito-semiotics, it is impossible to write the contextural indices, if we define in (m:n) m as the (triadic or trichotomic) value and n as the frequency of this value. Like in deutero-semiotics, in proto.semiotics, too, the definitions of m^n and of (m:n), respectively, are of course not the same as in polycontextural theory, but the number graphs are the same, and this is how close we can come. We can therefore note the system of the 10 Peircean sign classes as basis-system of proto-semiotics as follows:

$(3.1_3\ 2.1_1\ 1.1_{1,3}) \quad \rightarrow \quad ((3:1)\ (2:1)\ (1:4))$
$(3.1_3\ 2.1_1\ 1.2_1) \quad \rightarrow \quad ((3:1)\ (2:2)\ (1:3))$
$(3.1_3\ 2.1_1\ 1.3_3) \quad \rightarrow \quad ((3:2)\ (2:1)\ (1:3))$
$(3.1_3\ 2.2_{1,2}\ 1.2_1) \quad \rightarrow \quad ((3:1)\ (2:3)\ (1:2))$
$(3.1_3\ 2.2_{1,2}\ 1.3_3) \quad \rightarrow \quad ((3:2)\ (2:2)\ (1:2))$
$(3.1_3\ 2.3_2\ 1.3_3) \quad \rightarrow \quad ((3:3)\ (2:1)\ (1:2))$

$(3.2_2\ 2.2_{1,2}\ 1.2_1) \quad \rightarrow \quad ((3{:}1)\ (2{:}4)\ (1{:}1))$
$(3.2_2\ 2.2_{1,2}\ 1.3_3) \quad \rightarrow \quad ((3{:}2)\ (2{:}3)\ (1{:}1))$
$(3.2_2\ 2.3_2\ 1.3_3) \quad \rightarrow \quad ((3{:}3)\ (2{:}2)\ (1{:}1))$
$(3.3_{2,3}\ 2.3_2\ 1.3_3) \quad \rightarrow \quad ((3{:}4)\ (2{:}1)\ (1{:}1))$

The mappings are bijective. However, also the contextures are clear, as long as always the same contextural indices are mapped to the same sub-signs.

Just one interesting structure which appears only in proto-semiotics: The proto-structures of the eigenreal sign class

$(3.1_3\ 2.2_{1,2}\ 1.3_3) \quad \rightarrow \quad ((3{:}2)\ (2{:}2)\ (1{:}2))$

and of the categorial or "weak eigenreal" sign class (Bense 1992, p. 40)

$(3.3_{2,3}\ 2.2_{1,2}\ 1.1_{1,3}) \rightarrow \quad ((3{:}2)\ (2{:}2)\ (1{:}2))$

are identical! So, at least on proto-semiotic level, also the Genuine Category Class does show the structural feature of eigenreality.

Bibliography

Bense, Max, Die Eigenrealität der Zeichen. Baden-Baden 1992
Toth, Alfred, New elements of theoretical semiotics (NETS), based on the work of Rudolf Kaehr. In: Electronic Journal for Mathematical Semiotics, http://www.mathematical-semiotics.com/pdf/NETS1.pdf (2009a)
Toth, Alfred, Model of a 3-adic 3-contextural Deutero-Semiotics. In: Electronic Journal of Mathematical Semiotics, http://www.mathematical-semiotics.com/pdf/Deutero-Sem..pdf (2009b)

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