

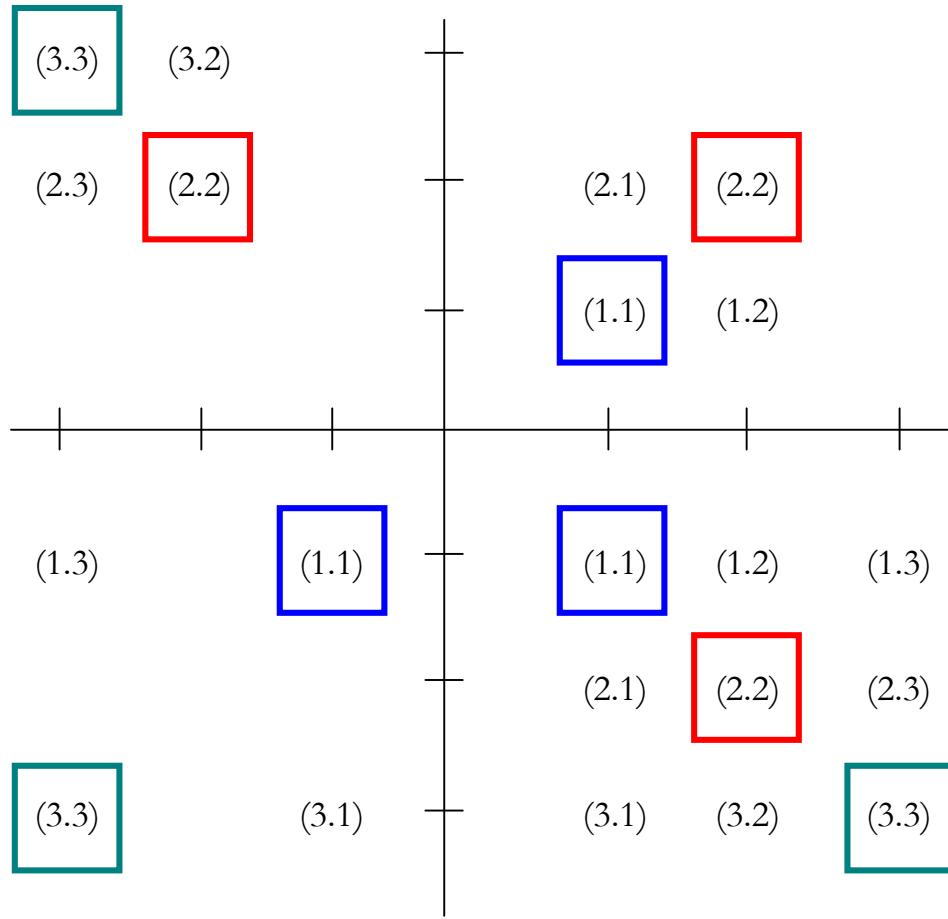
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2- and 3-dimensional display of triadic sub-signs in 4-contextural semiotics

1. As a provisory model for semiotic contexts in 2 dimensions, the Cartesian Coordinate System had been introduced into semiotics by Toth (2001, 2008a). Instead of marking the sub-signs of the triadic semiotic matrix by algebraic signs ((a.b), (-a.b), (-a.-b), (a.-b)) for the 4 quadrants of the Gaussian number field (counterclockwise), we start with Kaehr's 4-contextural triadic matrix (Kaehr 2009a, p. 8):

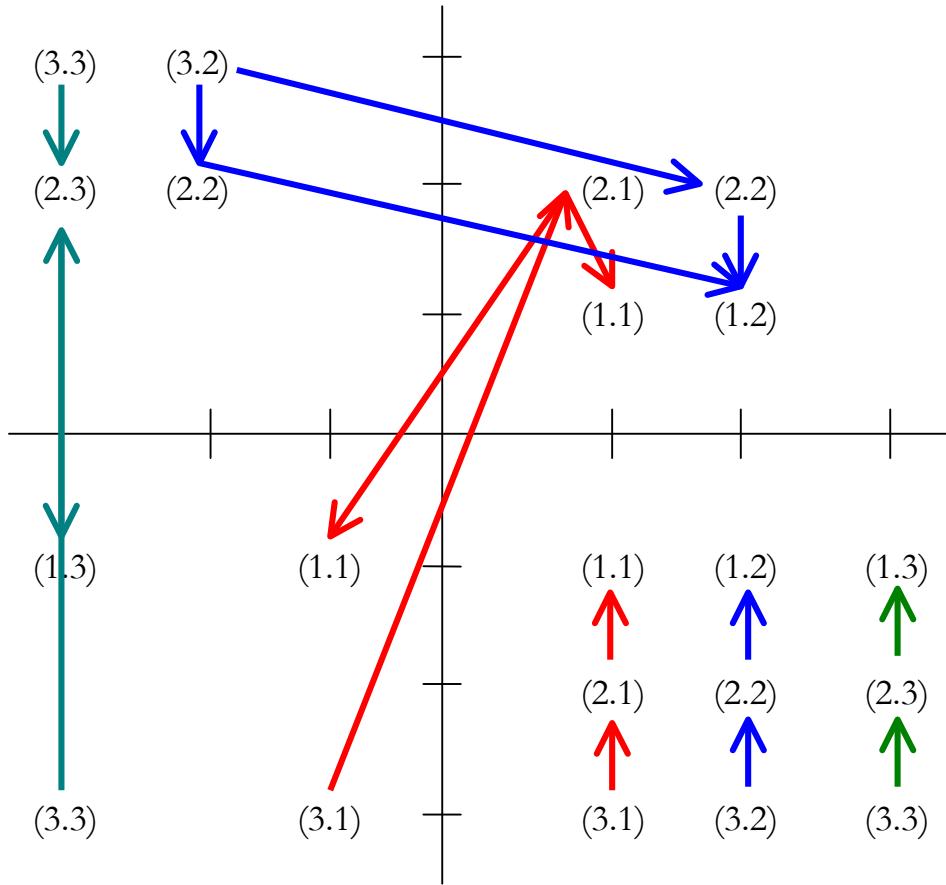
$$\begin{pmatrix} 1.1_{1,3,4} & 1.3_{1,4} & 1.4_{3,4} \\ 3.1_{1,4} & 3.3_{1,2,4} & 3.4_{2,4} \\ 4.1_{3,4} & 4.3_{2,4} & 4.4_{2,3,4} \end{pmatrix}$$

and display the distribution of the 9 sub-signs over the 4 semiotic contexts that we assign to the 4 quadrants



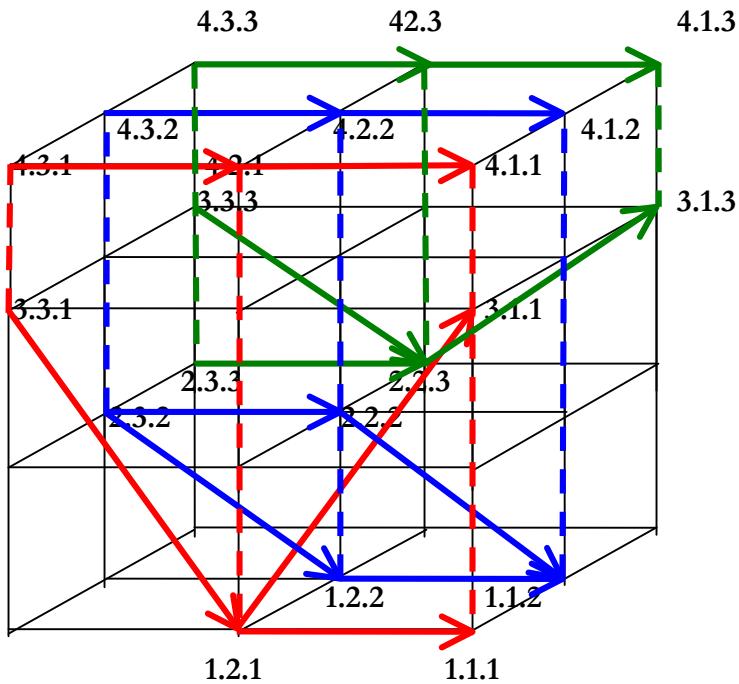
The sub-signs in frames of the same colors obey the matching conditions in connection with semiotic decomposition (cf. Kaehr 2009b).

The above coordinate system also gives a good picture of the structure of sign classes that lie in more than one contexture, extensively studied in Toth (2008a, pp. 82 ss.). In the following, we display only the three main sign classes, i.e. (3.1 2.1 1.1), (3.2 2.2 1.2), (3.3 2.3 1.3).



As one recognizes, no contextual transgressions are necessary for contexture 4.

2. Another possibility of displaying the distribution of the sub-signs over contextures is the 3-dimensional sign-cube of Stiebing (1978), which has been used in a series of papers by me (f. ex., Toth 2009). If we assign contextures to semiotic dimensions, however, we need a 3-dimensional, but 4-leveled cube. Again, we show for an example the three main sign classes:



This 3-dimensional model has the advantage that the semiotic connections between the same sub-signs in different contexts can be illustrated easily (in the graph by dashed lines).

Therefore, parametrization of sub-signs

$$(a.b) \rightarrow (\pm a.\pm b), a, b, c \in \{1, 2, 3\}$$

and dimensional projection of sub-signs

$$(a.b) \rightarrow (a.b.c), b,c \in \{1, 2, 3\}, a \in \{1, 2, 3, \dots\}$$

can be interpreted as two ways of displaying semiotic contexts. Therefore, the models of polycontextural semiotics introduced in Toth (2008a) and (2008b) still hold after the introduction of polycontextural environments into semiotics by Kaehr (2009a, b).

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