

Prof. Dr. Alfred Toth

A poly-contextural view on triadic semiotics. (NETS 2)

1. The Peircean semiotic fundamental categories can, as Kaehr (2009) has shown, be redefined by using their inner semiotic environments or heteromorphisms:

Firstness:	Peirce:	A
	Kaehr:	A a
Secondness:	Peirce:	A → B
	Kaehr:	A → B c
Thirdness:	Peirce:	A → C
	Kaehr:	A → C b ₁ ← b ₂

If we assume that M, O, I form three semiotic contextures, we get

$$\begin{aligned}M(.1.) &= R(1,3) \\ O(.2.) &= R(1,2) \\ I(.3.) &= R(2,3),\end{aligned}$$

which correspond to the definition of semiotic functions (cf. Walther 1979, pp. 113 ss.):

$$\begin{aligned}R(1,3) &\leftrightarrow R(M, I) = (M \Rightarrow I) \\ R(1,2) &\leftrightarrow R(M, O) = (M \Rightarrow O) \\ R(2,3) &\leftrightarrow R(O, I) = (O \Rightarrow I)\end{aligned}$$

Therefore, the Peircean “mono-contextural” set of prime-signs

$$PS = \{.1., .2., .3.\}$$

can be redefined, too, as a “poly-contextural” set of prime-signs

$$PS^* = \{(.1.)_{1,3}, (.2.)_{1,2}, (.3.)_{2,3}\}.$$

On this basis we get, instead of the mono-contextural semiotic matrix, the following poly-contextural semiotic matrix” (Kaehr 2009):

$$\left(\begin{array}{ccc} 1.1_{1,3} & 1.2_1 & 1.3_3 \\ 2.1_1 & 2.2_{1,2} & 2.3_2 \\ 3.1_3 & 3.2_2 & 3.3_{2,3} \end{array} \right)$$

2. However, as Kaehr (2009) has suggested and as it had been pointed out in Toth (2003, pp. 54 ss.), triadic semiotics has not necessarily to be built on 3 semiotic contextures, but can be constructed as fragments of 4 or more semiotic contextures. 4-contextural semiotics had been introduced extensively as pre-semiotics, embedding the Peircean triadic semiotics into tetradic semiotics containing the category (or contexture) Zeroness, already suggested in Bense (1975, pp. 45, 65 s.), in Toth (2008b). If the above triadic-3-contextural semiotic matrix is considered a fragment of a tetradic-4-contextural matrix, we get:

$$\left(\begin{array}{ccc} 1.1_{1,3,4} & 1.2_{1,4} & 1.3_{3,4} \\ 2.1_{1,4} & 2.2_{1,2,4} & 2.3_{2,4} \\ 3.1_{3,4} & 3.2_{2,4} & 3.3_{2,3,4} \end{array} \right)$$

In Toth (2008b), the category of Zeroness was identified with the “ontological space” introduced in Bense (1975, pp. 45 s., 65 ss.) and further developed in Stiebing (1981, 1984). Therefore, we have

$$(.0.) \parallel (.1., .2., .3.),$$

where the sign \parallel stands for the contextural border between the (categorical) object (.0.) and the sign (.1., .2., .3.).

However, as it was shown in Toth (2008c), the contextural border between the sign and its designated object is not the only transcendence involved in the sign relation. As a matter of fact, each of the three fundamental categories substitute, in a sign relation, an entity of the ontological space which is transcendent to its respective fundamental category. We thus have

(.0.) || (.1., .2., .3.)

(.1.) || (.0., .2., .3.)

(.2.) || (.0., .1., .3.)

(.3.) || (.0., .1., .2.)

Therefore, at least from a semantic standpoint, the upper border for a sign class is a 6-adic semiotics with 6 contextures as its minimum (cf. Toth 2007, pp. 186 ss.).

On the other side, if we take the above triadic 4-contextural matrix, we get the the following semiotic relations

(.0.) || (.1., .2., .3.)

(.1.) || (.0., .2., .3.)

(.2.) || (.0., .1., .3.)

(.3.) || (.0., .1., .2.)

Semantically, this means, that, if we construct the Peircean sign relation (.1., .2., .3.), we omit the categorial object. Thus, this is the normal sign relation which substitutes its object that is, therefore, transcendent to it. However, if we construct (.0., .2., .3.), (.0., .1., .3.) or (.0., .1., .2.), we omit the medium, the object, or the interpretant relation of the sign, but we abolish the basic contextural border between the sign and its designated object. I will discuss these three “abnormal” sign relations briefly:

(.1.) || (.0., .2., .3.): The sign without medium, i.e. without sign-carrier. As an example, we can take Lewis Carroll’s “Forest of no name”: As long as Alice and the deer are in this forest, where there are no medium relations of the signs, they walk and discuss with one another. However, as soon as they get out, the deer remembers its name and can now infer the connotation “deer = shy animal”, and runs frightened away (Nöth 1980, p. 75).

(.2.) || (.0., .1., .3.): The sign without object, i.e. without meaning. Here, too, we have a good example in Lewis Carroll’s work, this El-Dorado of pathological sign relations: The two sign-posts which direct in different directions, but at the same time to the allegedly unique object of the house of Tweedledum and Tweedledee. Nöth remarks: “Es stellt sich allerdings die Frage, ob es das durch

die Wegweiser anzeigte Objekt überhaupt gibt; denn Alice trifft Tweedledum and Tweedledee nicht in einem Haus, sondern unter einem Baum stehend an” (1980, p. 74).

(.3.) || (.0., .1., .2.): The sign without interpretant. Although there are at least ten different kinds of interpretant relations in Peirce’s work, the primary notion of interpretant, fitting perfectly to the intuitive notion of sign, is that something is a sign *for somebody*, and therefore for a receiver in the sense of a sign obeying the communication schema. Thus, an example of a sign without interpretant is an inscription, which cannot be deciphered. Moreover, since there is no meaning in a sign relation when the interpretant is absent, we can quote as an instant here Carroll’s Poem of Humpty-Dumpty to which Nöth correctly remarked: “Zwar kennt Alice das Gedicht auswendig, aber seine Bedeutung kennt sie nicht. Sie ist nicht in der Lage, die vollständige triadische Zeichenrelation herzustellen” (1980, S. 74) – denn hierzu bedürfte sie eben des Interpretantenbezugs.

3. In a work that unfortunately has not been recognized by the Stuttgart School of Semiotics, Joseph Ditterich pointed out that it is possible to consider the dyadic Saussurean sign as a sub-matrix of the triadic Peircean sign matrix (Ditterich 1990, p. 28). If we start again with the triadic matrix as a fragment of a 4-contextural semiotic matrix:

$$\left(\begin{array}{c|c|c} 1.1_{1,3,4} & 1.2_{1,4} & 1.3_{3,4} \\ \hline 2.1_{1,4} & 2.2_{1,2,4} & 2.3_{2,4} \\ \hline 3.1_{3,4} & 3.2_{2,4} & 3.3_{2,3,4} \end{array} \right)$$

then we realize that we do not only have, like in the case of the 3-contextural triadic semiotic matrix, 1, but 3 dyadic sub-matrices:

$$(1 \leftrightarrow 2)$$

$$(2 \leftrightarrow 3)$$

$$(1 \leftrightarrow 3)$$

Considering 0, we get in addition again 3 dyadic sub-matrices:

$$(0 \leftrightarrow 1)$$

$$(0 \leftrightarrow 2)$$

(0 ↔ 3)

In other words: There is no longer one dyadic sign model associating signifiant and signifié, but there are now 6 sign models which are based on associations between the pairs of Zeroness, Firstness, Secondness and Thirdness. Hence, Saussurean semiotics is not only just a (semiotically incomplete) sub-matrix of the basal triadic Peircean sign matrix, but even as a sub-matrix nothing else but a special case of at least 6 different sub-matrices which are completely unrecognized in Saussures “semiology” and its further developments in French structuralism.

4. The following table shows the distribution of the 9 sub-signs of the semiotic matrix over 4 semiotic contextures:

1	2	3	4
1.1		1.1	1.1
1.2			1.2
		1.3	1.3
2.1			2.1
2.2	2.2		2.2
	2.3		2.3
		3.1	3.1
	3.2		3.2
	3.3	3.3	3.3

As has been already stated above, we can now, starting from a triadic semiotics considered a fragment of a 4-contextural semiotics, construct sign classes which obey the following 4 semiotic part-relations:

$$SR^*(1) = (.1., .2., .3.)$$

$$SR^*(2) = (.0., .1., .2.)$$

$$SR^*(3) = (.0., .1., .3.)$$

$$SR^*(4) = (.0., .2., .3.)$$

For the construction of the sign classes, we stick with the inclusive semiotic order

(a.b c.d e.f) with a, ..., f ∈ {1, 2, 3} and (b ≤ d ≤ f),

thereby reducing the maximal amount of sign relations in which a, c, e are pairwise different, from $3^3 = 27$ to 10 sign classes, although this decision is questionable; cf. Kaehr (2009) and Toth (2009). For examples, cf. above, chapter 2.

4.1. Poly-contextural sign classes over $SR^*(1)$

These are exactly the 10 Peircean sign classes plus the contextural “indices”.

$(3.1_{3,4}$	$2.1_{1,4}$	$1.1_{1,3,4})$
$(3.1_{3,4}$	$2.1_{1,4}$	$1.2_{1,4})$
$(3.1_{3,4}$	$2.1_{1,4}$	$1.3_{3,4})$
$(3.1_{3,4}$	$2.2_{1,2,4}$	$1.2_{1,4})$
$(3.1_{3,4}$	$2.2_{1,2,4}$	$1.3_{3,4})$
$(3.1_{3,4}$	$2.3_{2,4}$	$1.3_{3,4})$
$(3.2_{2,4}$	$2.2_{1,2,4}$	$1.2_{1,4})$
$(3.2_{2,4}$	$2.2_{1,2,4}$	$1.3_{3,4})$
$(3.2_{2,4}$	$2.3_{2,4}$	$1.3_{3,4})$
$(3.3_{2,3,4}$	$2.3_{2,4}$	$1.3_{3,4})$

4.2. Poly-contextural sign classes over $SR^*(2)$

These are exactly the 10 Peircean sign classes together with the contextural “indices”:

$(2.1_{1,4}$	$1.1_{1,3,4}$	$0.1_{1,3})$
$(2.1_{1,4}$	$1.2_{1,4}$	$0.2_{1,2})$
$(2.1_{1,4}$	$1.3_{3,4}$	$0.3_{2,3})$
$(2.2_{1,2,4}$	$1.2_{1,4}$	$0.2_{1,2})$
$(2.2_{1,2,4}$	$1.3_{3,4}$	$0.3_{2,3})$
$(2.3_{2,4}$	$1.3_{3,4}$	$0.3_{2,3})$
$(2.2_{1,2,4}$	$1.2_{1,4}$	$0.2_{1,2})$
$(2.2_{1,2,4}$	$1.3_{3,4}$	$0.3_{2,3})$
$(2.3_{2,4}$	$1.3_{3,4}$	$0.3_{2,3})$
$(2.3_{2,4}$	$1.3_{3,4}$	$0.3_{2,3})$

4.3. Poly-contextural sign classes over $SR^*(3)$

$(3.1_{3,4}$	$1.1_{1,3,4}$	$0.1_{1,3}$)
$(3.1_{3,4}$	$1.2_{1,4}$	$0.2_{1,2}$)
$(3.1_{3,4}$	$1.3_{3,4}$	$0.3_{2,3}$)
$(3.1_{3,4}$	$1.2_{1,4}$	$0.2_{1,2}$)
$(3.1_{3,4}$	$1.3_{3,4}$	$0.3_{2,3}$)
$(3.1_{3,4}$	$1.3_{3,4}$	$0.3_{2,3}$)
$(3.2_{2,4}$	$1.2_{1,4}$	$0.2_{1,2}$)
$(3.2_{2,4}$	$1.3_{3,4}$	$0.3_{2,3}$)
$(3.2_{2,4}$	$1.3_{3,4}$	$0.3_{2,3}$)
$(3.3_{2,3,4}$	$1.3_{3,4}$	$0.3_{2,3}$)

4.4. Poly-contextural sign classes over $SR^*(4)$

$(3.1_{3,4}$	$2.1_{1,4}$	$0.1_{1,3}$)
$(3.1_{3,4}$	$2.2_{1,2,4}$	$0.2_{1,2}$)
$(3.1_{3,4}$	$2.3_{2,4}$	$0.3_{2,3}$)
$(3.1_{3,4}$	$2.2_{1,2,4}$	$0.2_{1,2}$)
$(3.1_{3,4}$	$2.3_{2,4}$	$0.3_{2,3}$)
$(3.1_{3,4}$	$2.3_{2,4}$	$0.3_{2,3}$)
$(3.2_{2,4}$	$2.2_{1,2,4}$	$0.2_{1,2}$)
$(3.2_{2,4}$	$2.3_{2,4}$	$0.3_{2,3}$)
$(3.2_{2,4}$	$2.3_{2,4}$	$0.3_{2,3}$)
$(3.3_{2,3,4}$	$2.3_{2,4}$	$0.3_{2,3}$)

From the above 4 polycontextural-semiotic systems, we can also very well see what I have called the “inheritance” of the pre-semiotic trichotomies in the semiotic trichotomies (Toth 2008a, pp. 166 ss.); cf., e.g.



While straight lines show the inheritance of the pre-semiotic trichotomies in the semiotic trichotomie, the dashed lines show the “inheritance” (or simply, the connection) of the contexts of zeroness to/with the higher fundamental categories.

Bibliography

- Bense, Max, Semiotische Prozesse und Systeme. Baden-Baden 1975
- Ditterich, Joseph, Selbstreferentielle Modellierungen. Klagenfurt 1990
- Kaehr, Rudolf, Sketch on semiotics in diamonds. In:
<http://www.thinkartlab.com/pkl/lola/Semiotics-in-Diamonds/Semiotics-in-Diamonds.html> (2009)
- Nöth, Winfried, Literatursemiotische Analysen zu Lewis Carrolls Alice-Büchern. Tübingen 1980
- Stiebing, Hans Michael, Die Semiose von der Natur zur Kunst. In: Semiosis 23, 1981, S. 21-31
- Stiebing, Hans Michael, „Objekte“ zwischen Natur und Kunst. In: Oehler, Klaus, Zeichen und Realität. Akten des 3. semiotischen Kolloquiums Hamburg. Bd. 2. Tübingen 1984, S. 671-674
- Toth, Alfred, Die Hochzeit von Semiotik und Struktur. Klagenfurt 2003
- Toth, Alfred, Zwischen den Kontexturen. Klagenfurt 2007
- Toth, Alfred, Semiotische Strukturen und Prozesse. Klagenfurt 2008 (2008a)
- Toth, Alfred, Semiotics and Pre-Semiotics. Klagenfurt 2008 (2008b)
- Toth, Alfred, Qualitative semiotische Zahlbereiche und Transzendenzen. In:
In: Electronic Journal for Mathematical Semiotics,
<http://www.mathematical-semiotics.com/pdf/NETS1.pdf> (2008c)
- 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> (2009)
- Walther, Elisabeth, Allgemeine Zeichenlehre. 2nd ed. Stuttgart 1979

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