Prof. Dr. Alfred Toth

Polycontextural-semiotic reality theory II

1. In Toth (2009b), we have shown that Bense's "associative addition"

(3. 2. 1.) + (.1 .2 .3) = (3.1 2.2 1.3)

is just one special case of 21 possible mappings of an n-tuple of triadic values to an n-tuple of trichotomic values. The maximum system of sign classes we get by consistent application of this mapping is the complete system of all 3^3 = 27 triadic-trichotomic sign classes in which the restriction that the trichotomic values of position (n+1) must not be smaller than the one on position n, is abolished:

(3.1 2.1 1.1)	(3.1 2.2 1.1)	(3.1 2.3 1.1)
(3.1 2.1 1.2)	(3.1 2.2 1.2)	(3.1 2.3 1.2)
(3.1 2.1 1.3)	(3.1 2.2 1.3)	(3.1 2.3 1.3)
(3.2 2.1 1.1)	(3.2 2.2 1.1)	(3.2 2.3 1.1)
(3.2 2.1 1.2)	(3.2 2.2 1.2)	(3.2 2.3 1.2)
(3.2 2.1 1.3)	(3.2 2.2 1.3)	(3.2 2.3 1.3)
(3.3 2.1 1.1)	(3.3 2.2 1.1)	(3.3 2.3 1.1)
(3.3 2.1 1.2)	(3.3 2.2 1.2)	(3.3 2.3 1.2)
(3.3 2.1 1.3)	(3.3 2.2 1.3)	(3.3 2.3 1.3)

(Red underlined are trichotomic orders of the form a > b > c like the Genuine Category class which is the main diagonal of the semiotic 3×3 matrix.)

Therefore, the above table contains all possible trichotomic orders, i.e.

$(a = b = c), (a > b > c), (a < b < c)$

and all mixed form.

2. As we have seen in the first part of this study (Toth 2009a), the introduction of contextures for the dyadic sub-signs changes the structural realities as presented by the reality thematics of the sing classes quite a bit:

$(1.1_{3,1}\ \underline{1.2_{1}\ 1.3_{3}})$	M<1, 3>-thematized M<3, 1>
$(2.1_{1}\ \underline{1.2_{1}\ 1.3_{3}})$	M<1, 3>-thematized O <1>
$(3.1_{3}\ \underline{1.2_{1}\ 1.3_{3}})$	M<1 ,3>-thematized I <3>
$(\underline{2.1_{1}\ 2.2_{2,1}}\ 1.3_{3})$	O<1, <2,1>>-tehematized M <3>
$(\underline{3.1_{3}}\ \underline{2.2_{2,1}}\ \underline{1.3_{3}})$	I<3>, O<2, 1>-thematized M<3> I<3>, M<3>-thematized O<2, 1> O<2, 1>, M<3>-thematized I<3>
$(\underline{3.1_{3}\ 3.2_{2}}\ 1.3_{3})$	I<3, 2>-thematized M<3>
$(2.1_{1}\ \underline{2.2_{2,1}\ 2.3_{2}})$	O<<2, 1>, 3>- thematized O<1>
$(3.1_{3}\ \underline{2.2_{2,1}\ 2.3_{2}})$	O<<2, 1>, 2>- thematized I<3>
$(\underline{3.1_{3}\ 3.2_{2}}\ 2.3_{2})$	I<3, 2>-thematized O<2>
$(3.1_{3}\ \underline{3.2_{2}\ 3.3_{3,2}})$	I<2, <3, 2>>-thematized I<2>

In the following, we give the additional structural realities of the reality thematics of the so-called “irregular” sign classes, in which the order of the Peircean sign classes has been abolished:

$(3.1_{3}\ 2.2_{1,2}\ 1.1_{1,3})$	×	$(\underline{1.1_{3,1}}\ 2.2_{2,1}\ \underline{1.3_{3}})$	M-O-M	<<3,1>, <2,1>, 3>
$(3.1_{3}\ 2.3_{2}\ 1.1_{1,3})$	×	$(\underline{1.1_{3,1}}\ 3.2_{2}\ \underline{1.3_{3}})$	M-I-M	<<3,1>, 2, 3>
$(3.1_{3}\ 2.3_{2}\ 1.2_{1})$	×	$(2.1_{1}\ 3.2_{2}\ 1.3_{3})$	O-I-M	<1, 2, 3>
$(3.2_{2}\ 2.1_{1}\ 1.1_{1,3})$	×	$(\underline{1.1_{3,1}\ 1.2_{1}}\ 2.3_{2})$	M-M-O	<<3,1>, 1, 2>
$(3.2_{2}\ 2.1_{1}\ 1.2_{1})$	×	$(\underline{2.1_{1}}\ 1.2_{1}\ \underline{2.3_{2}})$	O-M-O	<1, 1, 2>
$(3.2_{2}\ 2.1_{1}\ 1.3_{3})$	×	$(3.1_{3}\ 1.2_{1}\ 2.3_{2})$	I-M-O	<3, 1, 2>
$(3.2_{2}\ 2.2_{1,2}\ 1.1_{1,3})$	×	$(1.1_{3,1}\ \underline{2.2_{2,1}\ 2.3_{2}})$	M-O-O	<<3,1>, <2,1>, 2>
$(3.2_{2}\ 2.3_{2}\ 1.1_{1,3})$	×	$(1.1_{3,1}\ 3.2_{2}\ 2.3_{2})$	M-I-O	<<3,1>, 2, 2>
$(3.2_{2}\ 2.3_{2}\ 1.2_{1})$	×	$(\underline{2.1_{1}}\ 3.2_{2}\ \underline{2.3_{2}})$	O-I-O	<1, 2, 2>
$(3.3_{2,3}\ 2.1_{1}\ 1.1_{1,3})$	×	$(\underline{1.1_{3,1}\ 1.2_{1}}\ 3.3_{3,2})$	M-M-I	<<3,1>, 1, <3,2>>
$(3.3_{2,3}\ 2.1_{1}\ 1.2_{1})$	×	$(2.1_{1}\ 1.2_{1}\ 3.3_{3,2})$	O-M-I	<1, 1, <3,2>>
$(3.3_{2,3}\ 2.1_{1}\ 1.3_{3})$	×	$(\underline{3.1_{3}}\ 1.2_{1}\ \underline{3.3_{3,2}})$	I-M-I	<3, 1, <3,2>>

$(3.3_{2,3}\ 2.2_{1,2}\ \ 1.1_{1,3})$	×	$(1.1_{3,1}\ 2.2_{2,1}\ 3.3_{3,2})$	M-O-I	<<3,1>, <2,1>, <3,2>>
$(3.3_{2,3}\ 2.2_{1,2}\ \ 1.2_{1})$	×	$(\underline{2.1_{1}\ 2.2_{2,1}}\ 3.3_{3,2})$	O-O-I	<1, <2,1>, <3,2>>
$(3.3_{2,3}\ 2.2_{1,2}\ \ 1.3_{3})$	×	$(\underline{3.1_{3}}\ 2.2_{2,1}\ \underline{3.3_{3,2}})$	I-O-I	<3, <2,1>, <3,2>>
$(3.3_{2,3}\ 2.3_{2}\ 1.1_{1,3})$	×	$(1.1_{3,1}\ \underline{3.2_{2}\ 3.2_{3,2}})$	M-I-I	<<3,1>, 2, <3,2>>
$(3.3_{2,3}\ 2.3_{2}\ 1.2_{1})$	×	$(2.1_{1}\ \underline{3.2_{2}\ \ 3.3_{3,2}})$	O-I-I	<1, 2, <3,2>>

As one sees easily, in the part-system of the 17 “irregular” sign classes, completely new reality structures appear that do not appear in the complementary system of the 10 Peircean sign classes nor in any other system or part-system for lower or higher n-adic m-otomic sign classes (cf. Toth 2007, pp. 214 ss.). Therefore, as suggested in my earlier work, the semiotic restriction for trichotomic values (3.a 2.b 1.c) with ($a \leq b \leq c$) has to be abolished, since the 10 Peircean sign classes are not only a set-theoretic, but also a reality-theoretic fragment of the complete representational system of n-contextural 3-adic 3-otomic semiotics.

Bibliography

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