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Quantitative, qualitative, quanti-qualitative, and quali-quantitative sign classes

1. The 10 monocontextural Peircean sign classes are, as classes, i.e. sets, of signs quantitative sign relations, although their three dyadic sub-signs and their semioses involved are qualitatively defined. There are two possibilities to note the sign classes formally, first, as unordered sets dyads (left), second as unordered sets of the trichotomic values of the dyads:

(3.1 2.1 1.1) ≡ (1, 1, 1)
(3.1 2.1 1.2) ≡ (1, 1, 2)
(3.1 2.1 1.3) ≡ (1, 1, 3)
(3.1 2.2 1.2) ≡ (1, 2, 2)
(3.1 2.2 1.3) ≡ (1, 2, 3)
(3.1 2.3 1.3) ≡ (1, 3, 3)
(3.2 2.2 1.2) ≡ (2, 2, 2)
(3.2 2.2 1.3) ≡ (2, 2, 3)
(3.2 2.3 1.3) ≡ (2, 3, 3)
(3.3 2.3 1.3) ≡ (3, 3, 3)

An one sees, the correspondences are unambiguous.

2. As I have shown in Toth (2009), there is more than one way of mapping contextural indices to the dyadic sub-signs of a sign class. Or, in other words: As long as certain logical laws are considered, the contextures in which dyads can be placed, are almost arbitrary (Korzybski-ambiguity). Important is alone that we define in which contexture(s) we set a semiotic matrix, so that all 9 dyads get unambiguously mapped to contextures. E.g., if we start with Kaehr's (2008) proposal, we get the following 3-contextural 3-adic 3×3 semiotic matrix:

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

Now, the mapping of contextures to sub-signs is not bijective, since we have

$(1.2)_1 = (2.1)_1$
$(1.3)_3 = (3.1)_3$
$(2.3)_2 = (3.2)_2$

However, nevertheless, if we set the dyads together to sign classes for which we must obey the law

SCl = (3.a 2b 1.c),

because of the fix position of the dyads, they get quasi afterwards unambiguous. From that is follows now, that, considering (SCl = (3.a 2.b 1.c)), we can substitute the sign classes by their ordered (!) sets of contextures. Needless to say, that n-tuples of contextures are also ordered (partial) sets. We thus obtain:

(3.1 2.1 1.1)	≡	(1, 1, 1)	≡	$(3.1_3\ 2.1_1\ 1.1_{1,3})$	≡	$<3, 1, <1, 3>>$
(3.1 2.1 1.2)	≡	(1, 1, 2)	≡	$(3.1_3\ 2.1_1\ 1.2_1)$	≡	$<3, 1, 1>$
(3.1 2.1 1.3)	≡	(1, 1, 3)	≡	$(3.1_3\ 2.1_1\ 1.3_3)$	≡	$<3, 1, 3>$
(3.1 2.2 1.2)	≡	(1, 2, 2)	≡	$(3.1_3\ 2.2_{1,2}\ 1.2_1)$	≡	$<3, <1, 2>, 1>$
(3.1 2.2 1.3)	≡	(1, 2, 3)	≡	$(3.1_3\ 2.2_{1,2}\ 1.3_3)$	≡	$<3, <1, 2>, 3>$
(3.1 2.3 1.3)	≡	(1, 3, 3)	≡	$3.1_3\ 2.3_2\ 1.3_3)$	≡	$<3, 2, 3>$
(3.2 2.2 1.2)	≡	(2, 2, 2)	≡	$(3.2_2\ 2.2_{1,2}\ 1.2_1)$	≡	$<2, <1, 2>, 1>$
(3.2 2.2 1.3)	≡	(2, 2, 3)	≡	$(3.2_2\ 2.2_{1,2}\ 1.3_3)$	≡	$<2, <1, 2>, 3>$
(3.2 2.3 1.3)	≡	(2, 3, 3)	≡	$(3.2_2\ 2.3_2\ 1.3_3)$	≡	$<2, 2, 3>$
(3.3 2.3 1.3)	≡	(3, 3, 3)	≡	$(3.3_{2,3}\ 2.3_2\ 1.3_3)$	≡	$<<2, 3>, 2, 3>$

3. So, finally, we can summarize that we have

3.1. Two ways of noting quantitative sign classes: As (3.a 2.b 1.c) and as (a, b, c).

3.2. One way of noting qualitative sing classes: As <<i, j>, <k, l>, <m, n>>, where $j \vee l \vee n \in \{\varnothing\}$.

3.3. One way of noting quanti-qualitative sign classes: As ($3.a_{i,j}$ $2.b_{k,l}$ $1.c_{m,n}$).

3.4. One way of noting quali-quantitative sing classes: $<<i, j>_a, <k, l>_b, <m, n>_c>$, where $a, b, c \in \{.1, .2, .3\}$.

Bibliography

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