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Chiastic and related sign connections in polycontextural semiotics

1. In Toth (2009) it was shown that monocontextural sign relations can appear in the 12 following basis structures

(3.a 2.b 1.c)	(c.1 b.2 c.3)
(3.a 1.c 2.b)	(b.2 c.1 a.3)
(2.b 3.a 1.c)	(c.1 a.3 b.2)
(2.b 1.c 3.a)	(a.3 c.1 b.2)
(1.c 3.a 2.b)	(b.2 a.3 c.1)
(1.c 2.b 3.a)	(a.3 b.2 c.1).

If we now assume, for a polycontextural semiotics, a maximum of three indices per sub-sign referring to contextures, and further, that the all three sub-signs are contextural homogeneous per sign relation, we get a semiotic basis system of 72 sign relations

(3.a _{i,j,k} 2.b _{i,j,k} 1.c _{i,j,k})	(c.1 _{k,i,j} b.2 _{k,i,j} a.3 _{k,i,j})
(3.a _{i,k,j} 2.b _{i,k,j} 1.c _{i,k,j})	(c.1 _{j,k,i} b.2 _{j,k,i} a.3 _{j,k,i})
(3.a _{j,i,k} 2.b _{j,i,k} 1.c _{j,i,k})	(c.1 _{k,i,j} b.2 _{k,i,j} a.3 _{k,i,j})
(3.a _{j,k,i} 2.b _{j,k,i} 1.c _{j,k,i})	(c.1 _{i,k,j} b.2 _{i,k,j} a.3 _{i,k,j})
(3.a _{k,i,j} 2.b _{k,i,j} 1.c _{k,i,j})	(c.1 _{j,i,k} b.2 _{j,i,k} a.3 _{j,i,k})
(3.a _{k,j,i} 2.b _{k,j,i} 1.c _{k,j,i})	(c.1 _{i,j,k} b.2 _{i,j,k} a.3 _{i,j,k}),

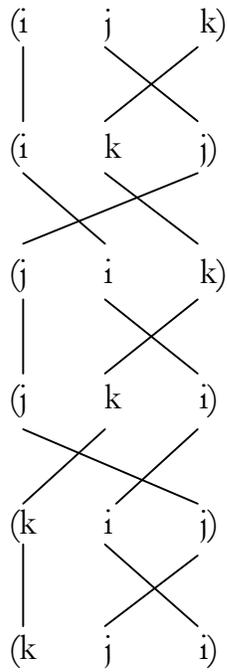
and so on for all 6 above permutations.

2. One can easily see that the connections between these 72 sign relations are quite different from the connections between the moncontextural sign relations given in Toth (2008, pp. 20 ss.). The maximal number of $72! = 6.12344584 \times 10^{103}$ connections can be split into the following groups:

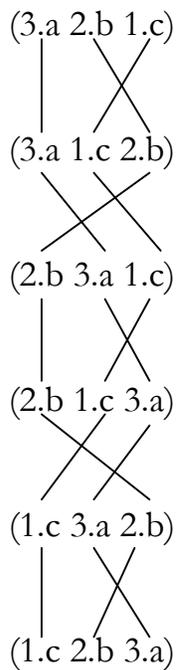
- combinations of sign classes and sign classes
- combinations of sign classes and reflections
- combinations of sign classes and dualizations
- combinations of reflections and dualizations

Other possible combinations do not furnish unexpected or otherwise “exciting” types of sign connections.

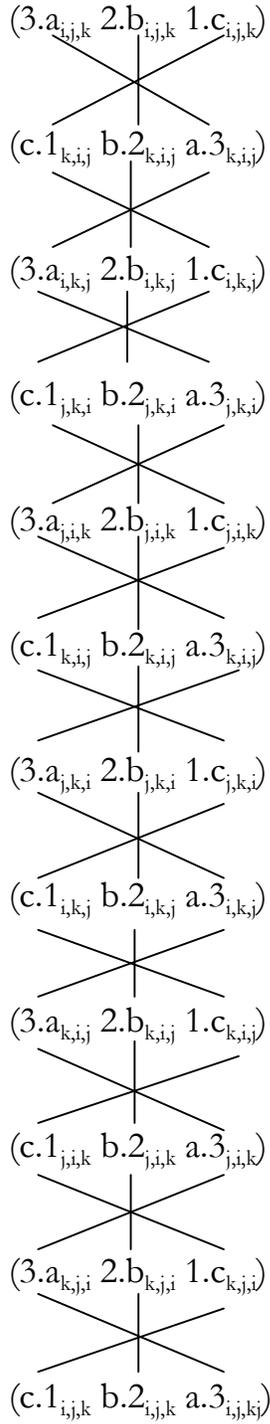
2.1. Combinations of sign classes and sign classes



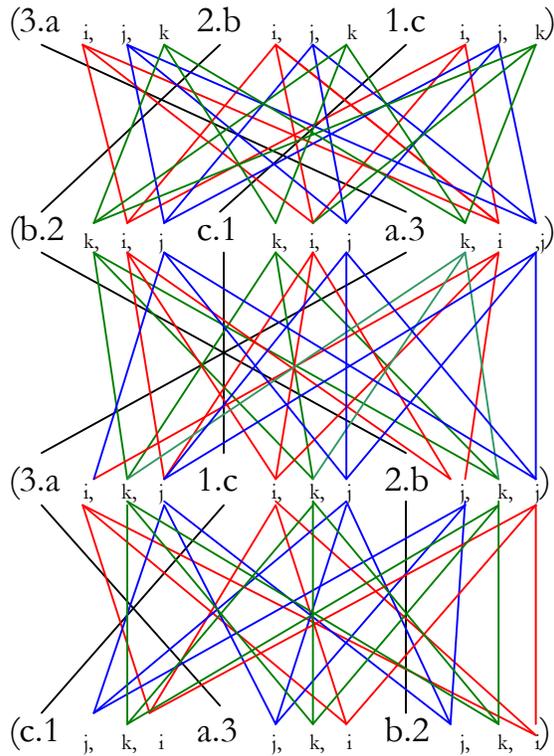
2.2. Combinations of sign classes and reflections



2.3. Combinations of sign classes and dualizations



2.4. Combinations of reflections and dualizations (excerpt)



Especially from 2.4., we can guess what an enormous complexity of connections by inner semiotic environments (contextures) result already from 3-contextural 3-adic sign relations.

Bibliography

Toth, Alfred, Semiotic Ghost Trains. Klagenfurt 2008

Toth, Alfred, The maximal system of basic homogeneous polycontextural sign relations. In: Electronic Journal for Mathematical Semiotics, www.mathematical-semiotics.com (2009)

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