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Semiotic perspectives from Another World

Dedicated to Pascal Steiner in friendship

1. According to Toth (2008b, pp. 177 ss.), each sign class showing the basic triadic-trichotomic order (a.b c.d e.f) with a = 3., c = 2., e = 1. and .b ≤ .d < .f can be rewritten as a system of 6 transpositions according to the 6 possible orders of a sign class (3. → 2. → 1.; 3. → 1. → 2; 2. → 3. → 1.; 2. → 1.→ 3.; 1. → 3. → 2.; 1. → 2. → 3.):

(a.b c.d e.f)   (c.d e.f a.b)
(a.b e.f c.d)   (e.f a.b c.d)
(c.d a.b e.f)   (e.f c.d a.b)

The same is true, of course, for the dual reality thematics of each sign class. In this case, the 6 possible orders (1. → 2. → 3.; 2. → 1. → 3; 1. → 3. → 2.; 3. → 1.→ 2.; 2. → 3. → 1.; 3. → 2. → 1.) lead to the following 6 transpositions:

(f.e d.c b.a)   (b.a f.e d.c)
(d.c f.e b.a)   (d.c b.a f.e)
(f.e b.a d.c)   (b.a d.c f.e)

2. If we now compare two random transpositions of a sign class or its reality thematics (but not out of both), f. ex.

(3.1 2.1 1.3)
(1.3 3.1 2.1)

and if we compare this pair of transpositions with the following pair:

(3.1 2.1 1.3)
(1.3 2.1 3.1),

we recognize that in the latter pair the second transposition is a mirror-picture of the first, insofar as it consists of the same sub-signs, but in reverse order, while in the first pair the two transpositions are not mirroring one another. It now turns out that we can order the 6 transpositions in pairs, so that all pairs consist only of transpositions that are mirror-pictures of one another:

1 (3.1 2.1 1.3)   3 (1.3 3.1 2.1)   5 (2.1 1.3 3.1)
2 (1.3 2.1 3.1)   4 (2.1 3.1 1.3)   6 (3.1 1.3 2.1)

Thus, if M stands for the binary operation of mirroring, i.e. inversion of the order of the sub-signs of a sign class or reality thematic (but not of the order of the prime-signs of the sub-signs), we get

M(3.1 2.1 1.3) = (1.3 2.1 3.1)
M(1.3 3.1 2.1) = (2.1 3.1 1.3)
M(2.1 1.3 3.1) = (3.1 1.3 2.1)

Since M(1.3 2.1 3.1) = (3.1 2.1 1.3), we also have MM(3.1 2.1 1.3) = (3.1 2.1 1.3), thus, the semiotic operation of mirroring works like the logical negation operator.

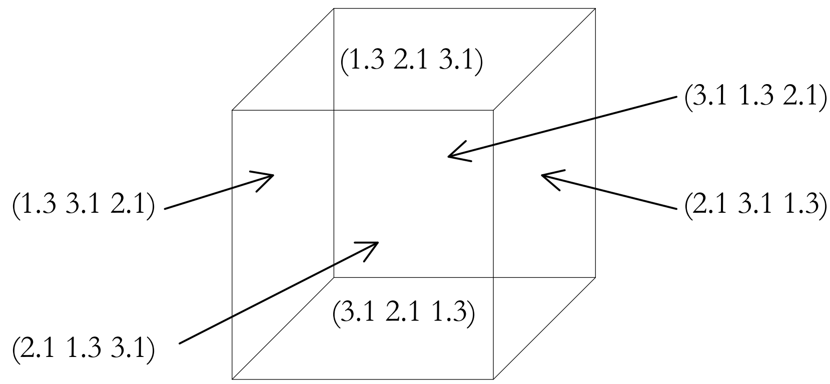
3. In Toth (2008b, pp. 41 ss.), it was shown that the 6 possible reality thematics of each sign class correspond with 6 different system theoretic schemes of observer-standpoints:

(3.1 1.2 1.3)	Objective subject (1), objective subject (2)-thematized subject
(1.3 1.2 3.1)	Objective subject (2), objective subject (1)-thematized subject
(1.2 1.3 3.1)	Objective subject (1), objective subject (2)-thematized subject
(3.1 1.3 1.2)	Objective subject (2), objective subject (1)-thematized subject
(1.3 3.1 1.2)	Objective subject (2), objective subject (1)-thematized subject
(1.2 3.1 1.3)	Objective subject (1), objective subject (2)-thematized subject

Furthermore, the two times 3 seemingly identical types of thematized realities are differentiated according to semiotic priority of what is thematizing or what is thematized (cf. Toth 2008c). For the following table, we use "oS" for objective subject, "sS" for (subjective) subject and "a > b" or "b < a" for "a has semiotic priority to b":

(3.1 1.2 1.3)	sS > (oS1 > oS2)
(1.2 1.3 3.1)	(oS1 > oS2) > sS
(1.2 3.1 1.3)	(oS1 > sS < oS2)
(1.3 1.2 3.1)	(oS2 > oS1) > sS
(3.1 1.3 1.2)	sS > (oS2 > oS1)
(1.3 3.1 1.2)	oS2 > sS < oS1

In other words: The 6 transpositions of a reality thematic and thus of its dual sign class, too, change the system theoretic relationship between subjective subject, objective subject and object and thus the relationship of system and environment in all of the 6 possible standpoints of the observer. Therefore, we are able to visualize the semiotic and system theoretic implications of transpositional reality with the following cube-model in which opposite sides mirror one another:



We may further visualize the inner relationships between the three pairs of mirroring standpoints, or sides of the cube by aid of the semiotic connections of the respective transpositions:

(3.1 2.1 1.3) (1.3 3.1 2.1) (2.1 1.3 3.1)

(1.3 2.1 3.1) (2.1 3.1 1.3) (3.1 1.3 2.1)

If we use category theoretic notation (cf. Toth 2008b, pp. 159 ss.), we may determine exactly the transitions between two opposite mirroring sides or transpositions:

[[β°, id1], [α°, βα]] [[βα, α°β°], [β°, id1]] [[α°, βα], [βα, α°β°]]

[[α, α°β°], [β, id1]] [[β, id1], [α°β°, βα]] [[α°β°, βα], [α, α°β°]]

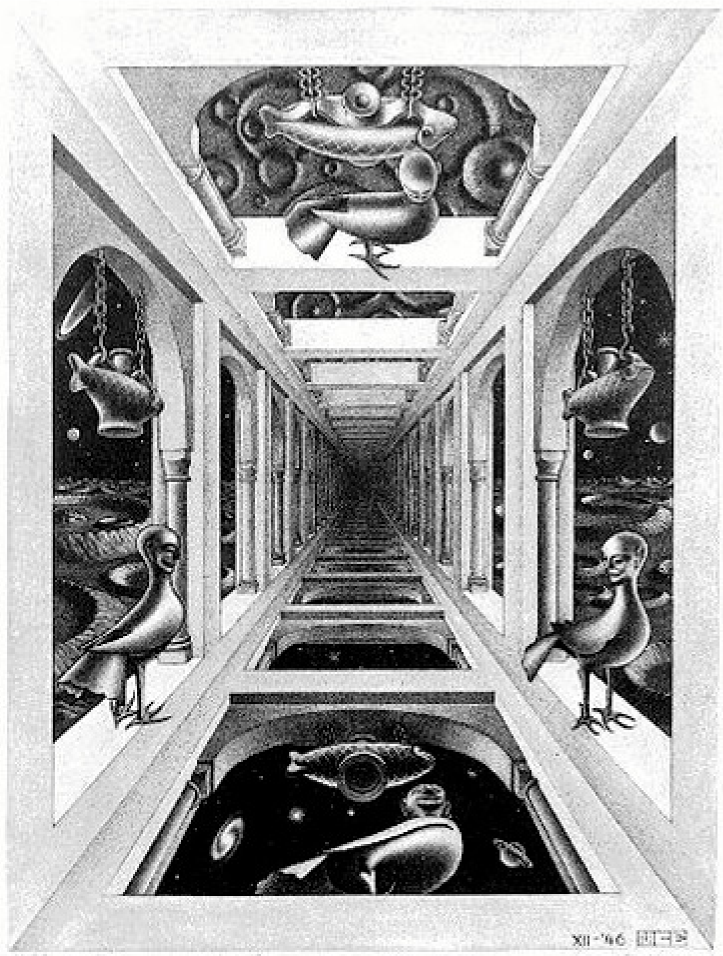
We thus get the following three transition classes for the above pairs of transpositions from the left to the right:

[id1]; [βα, α°β°, id1]; [βα,α°β°]

Hence [id1] is the category theoretic-semiotic transition class between below and above, [βα, α°β°, id1] is the respective transition class between in front and at the rear, and [βα, α°β°] is the transition class between the left and the right side of the **semiotic cube** of the transpositions of a sign class or reality thematic. However, this assignment of transpositions to the sides of a cube is arbitrary. Each side of the semiotic cube may be assigned to each of the six transpositions, whereby the only condition is that opposite sides are assigned to the pairs of mirroring transpositions.

4. The cube-model of semiotic transpositions presented above has found a genial anticipation in M.C. Escher's mezzotint "Another World I" (1946) and his woodcut-print "Another World II" (1947). While "Another World II" pictures the cell of a view into "another" world, in "Another World II" the arches continue on as an infinite corridor, thus anticipating the idea of a **semiotic transit-corridor**, which was outlined in Toth (2008a):

M.C. Escher, Other World II, 1947



M.C. Escher, Other World I, 1946

Now, each sign class and thus also each reality thematic hangs together with each other sign class and reality thematic in at least one sub-sign with the dual-inverse sign class (3.1 2.2 1.3). Thus, the 10 sign classes and the 10 reality thematics form a "determinant-symmetric duality system" (Walther 1982). By virtue of this semiotic law, all 6 sides of the semiotic cube depicted above hang together, too, with all transpositions of the 10 sign classes by at least one of the sub-signs of the eigen-real sign class. Hence, if we write each sign class and its transpositions in the form of a semiotic cube, we get a semiotic corridor exactly corresponding to Escher's "Another World I", whereby the arches in Escher's picture, which serve as walls, soils and ceilings at the same time, correspond to the transition classes between the transpositions of each sign class or reality thematic as shown above. Therefore, the semiotic cube is the cell of a semiotic transit-corridor in the sense of the abstract model developed in Toth (2008b).

Bibliography

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