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Semiotics from dyadic prime signs

1. Classical Peirce-Bensean semiotics is based on dyadic prime-signs:

PS = {(1.1), (1.2), (1.3), ..., (3.3)}

These dyads take two points in a Cartesian coordinate system.

If one would try to construct a semiotics based on monadic prime-signs, one would get any arbitrary line between the fundamental categories 1, 2 and 3.

In a 3-dimensional semiotics, prime-signs are triadic. The definition of a sign class in Stiebings sign-cube (Stiebing 1978, p. 77) is:

3-SCl = (a.3.b c.2.d e.1.f),

where (a, c, e) are the dimensional numbers, which can coincide according to Toth (2009) with the semiotic contextures.

Therefore, a 4-dimensional semiotics which is based on 4-adic prime-signs, can be defined in more than 1 way:

1. 4-SCl = (a.b.3.c) (d.e.2.f) (g.h.1.i).

where ((a, b), (d, e), (g, h)) is the set of semiotic dimensions. Because there are two variables for dimensional numbers, one can state that one is identical to the respective contexture.

2. 4-SCl = (a.3.b.c) (d.2.e.f) (g.1.h.i),

where (a, ...g) and (c, ..., i) are the sets of semiotic dimensions. Combinations are possible.

2. However, a hitherto never mentioned possibility to construct sign classes (and other semiotic relations) from dyadic prime-signs can be defined as follows:

SCl = ((a.b) (c.d)), ((e.f) (g.h)), ((i.k) (l.m))

Here, the dyads are themselves pairs of dyads. Which of the 4 variables per dyad is ascribed to triadic and trichotomic values and which the semiotic order is is completely arbitrary, e.g.

((a.b) (c.d)) = (3.1, 2.1) (triadicity, trichotomic inclusion)
((a.b) (c.d)) = (2.1, 3.1) (triadicity, no triochotomic inclusion)
((a.b) (c.d)) = (2.1, 2.1) (neither triadicity nor trichotomic inclusion)

If there are no semiotic restrictions, we have 9^9 = 387'420'489 combinations of dyads to pair of dyads. Another questions are: Let's say we ascribe

((3.b) (1./2./3.d)

or

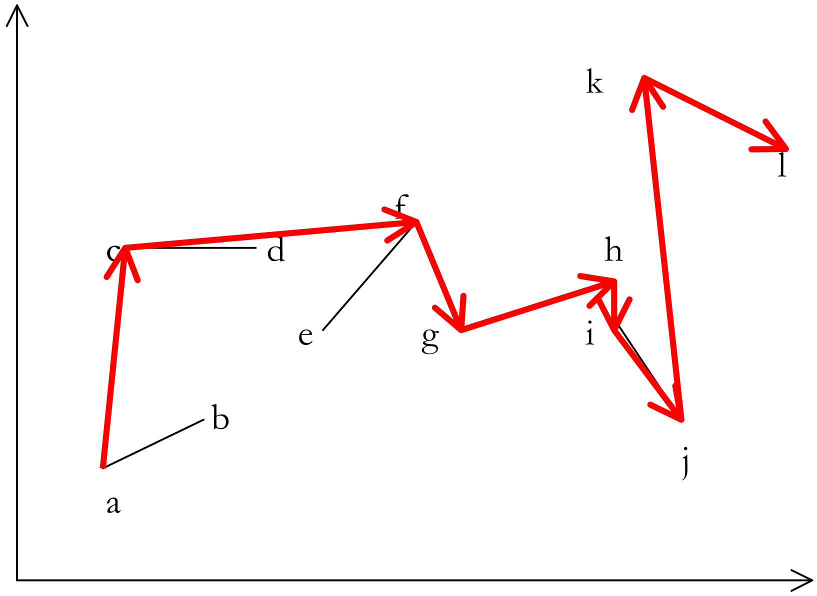
((a.3) (c. 1/2/3.),

what are (b, d) and (a, c) then? Dimensional numbers? Identical or non-identical to the respective contextures?

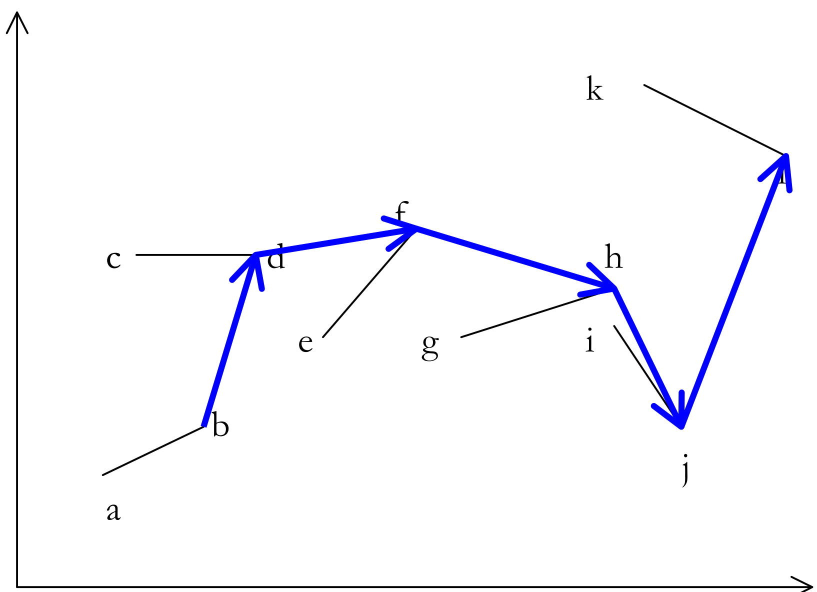
3. Dyads as (ordered) pairs of dyads take a line in a 2-dimensional Cartesian coordinate system. Let us start with

SCl = ((a.b) (c.d)), ((e.f) (g.h)), ((i.j) (k.l))

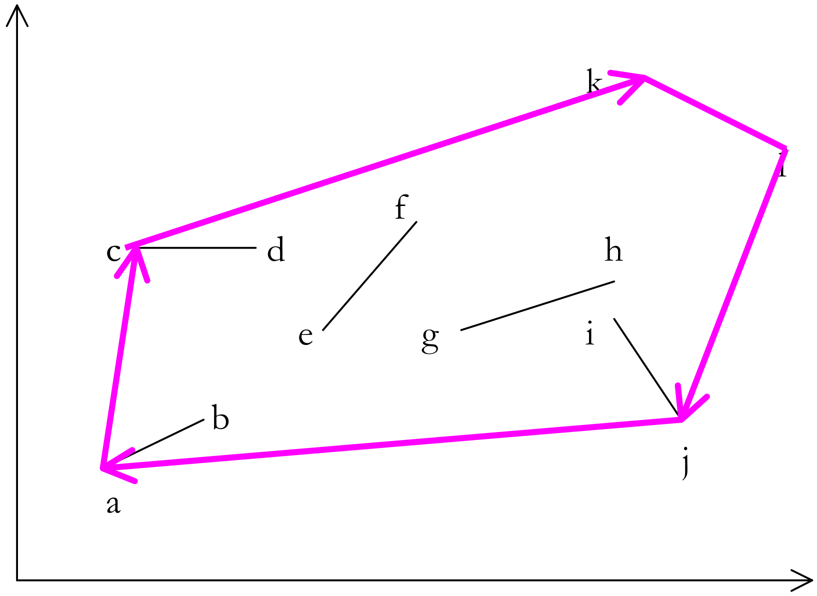
and draw the lines which correspond to the dyads-in-dyads fully arbitrarily, then we get, e.g.:



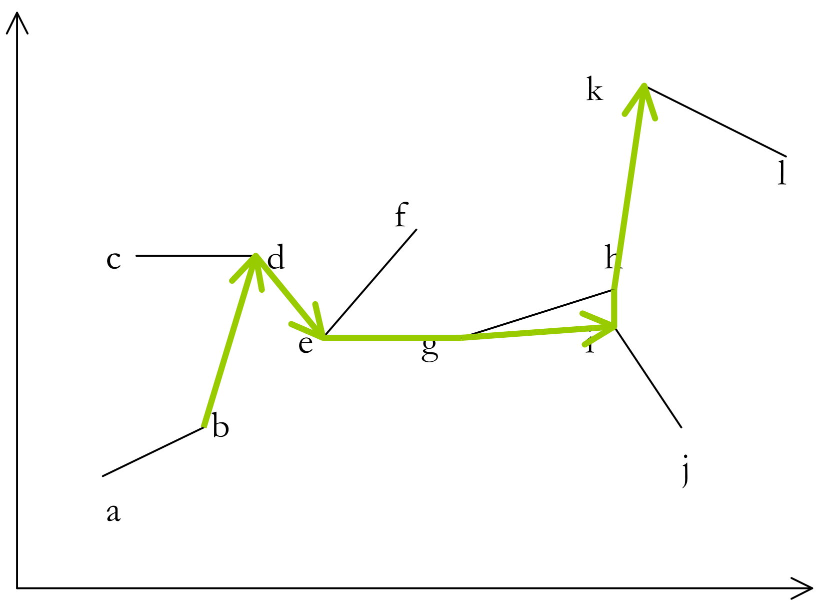
Outer graph of arbitrary sign class over dyads of dyads



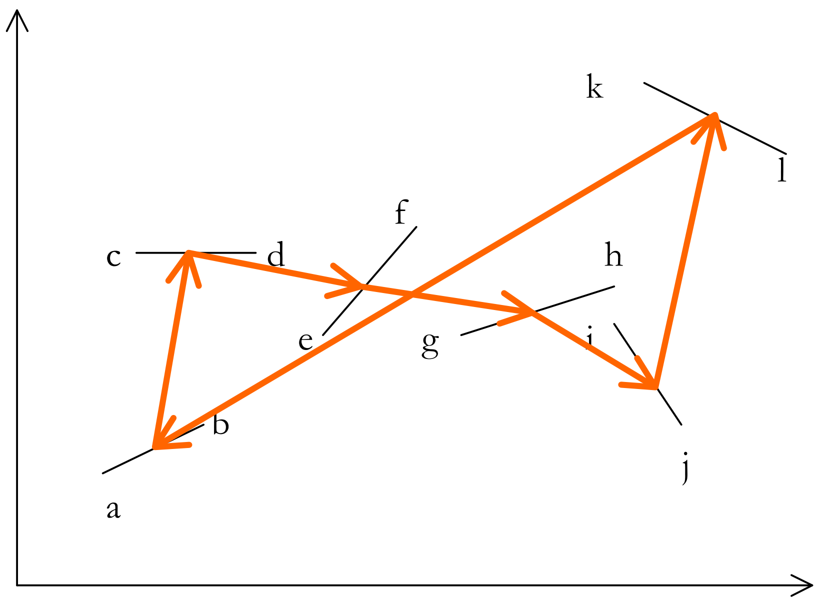
Inner graph of arbitrary sign class over dyads of dyads



Semiotic hull graph of arbitrary sign class over dyads of dyads



Semiotic kernel graph of arbitrary sign class over dyads of dyads



Semiotic relation-as-vertex-graph of arbitrary sign class over dyads of dyads

As one sees, sign relations defined over dyads of dyads lead to non-trivial graphs and highly interesting topological structures. By itself,

$^{2/2}$SCl = ((a.b) (c.d)), ((e.f) (g.h)), ((i.k) (l.m))

is but just a special case of similar sign relations defined over triads of triads

$^{3/3}$SCl = (((a.b.c) (d.e.f), (g.h.i)) ((j.k.l) (m.n.o) (p.q.r)), ((s.t.u) (v.w.x) (y, z, a))) =
(A, B, C), where A, B, C are triads over triads

or over tetrad of tetrads

$^{4/43}$SCl = (A, B, C, D), where A, B, C, D are tetrads over tetrads,

generally

$^{n/n}$SCl = (A, B, C, ... n), where A, ...n, are n-ads over n-ads.

Bibliography

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