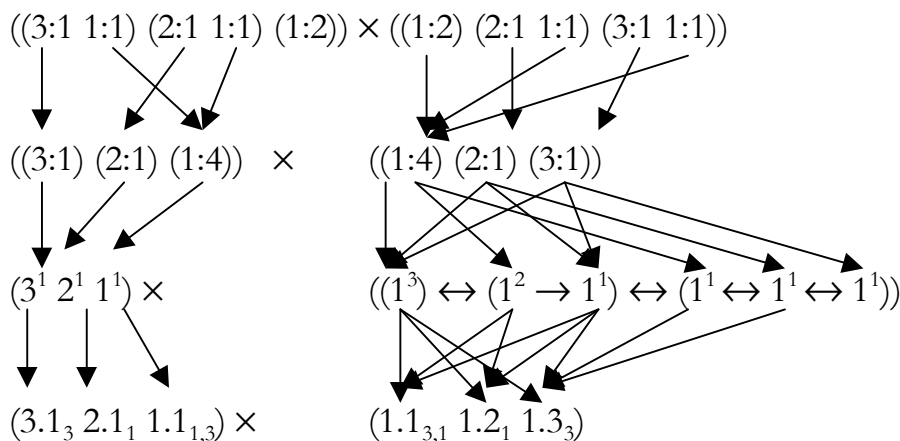


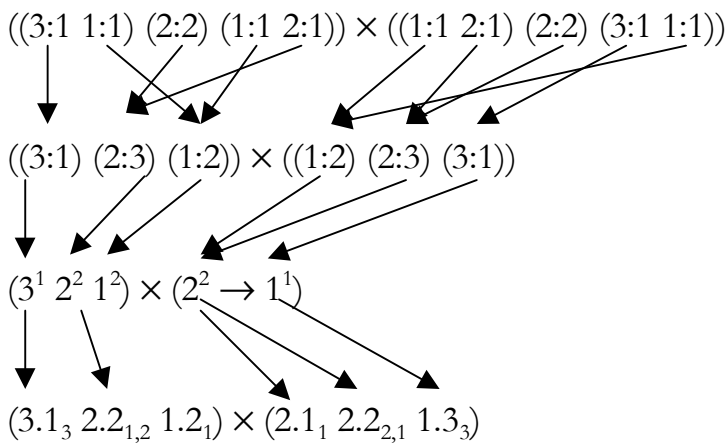
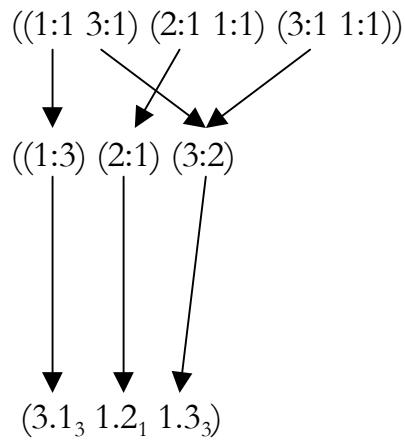
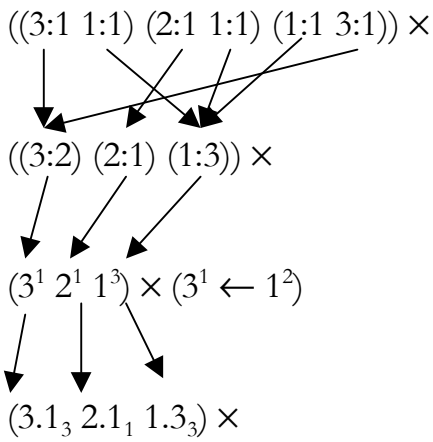
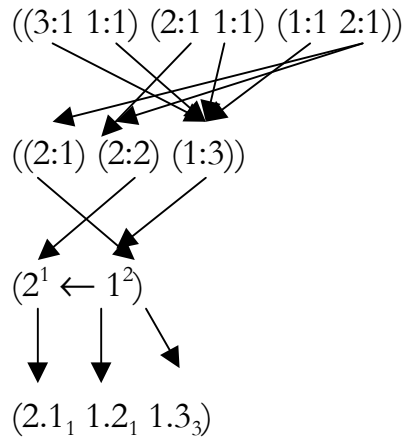
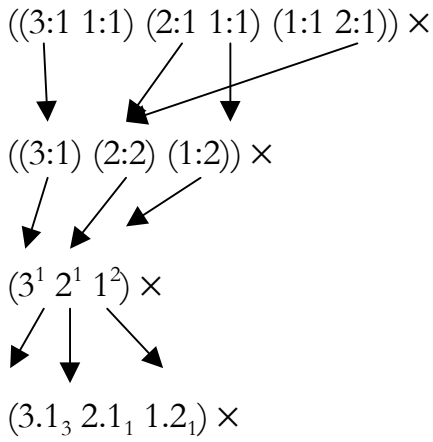
**Prof. Dr. Alfred Toth**

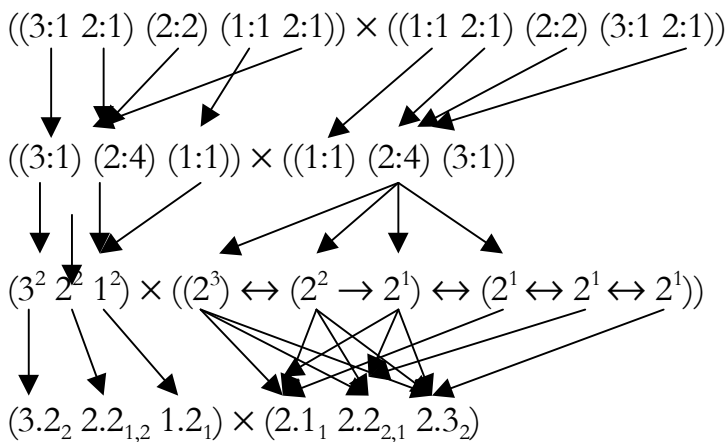
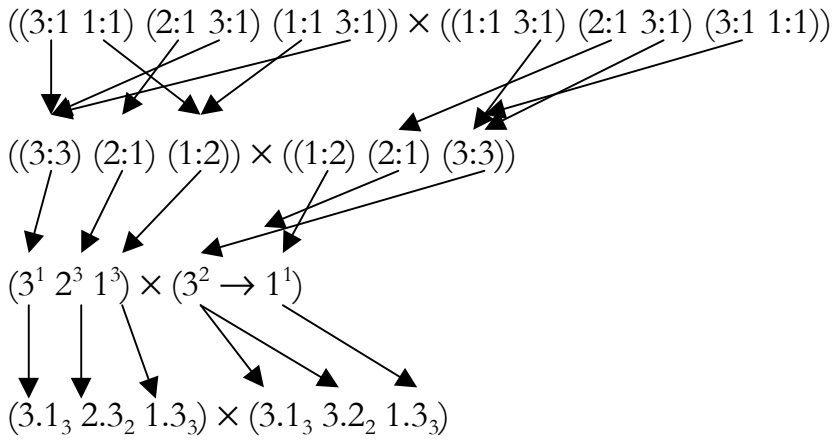
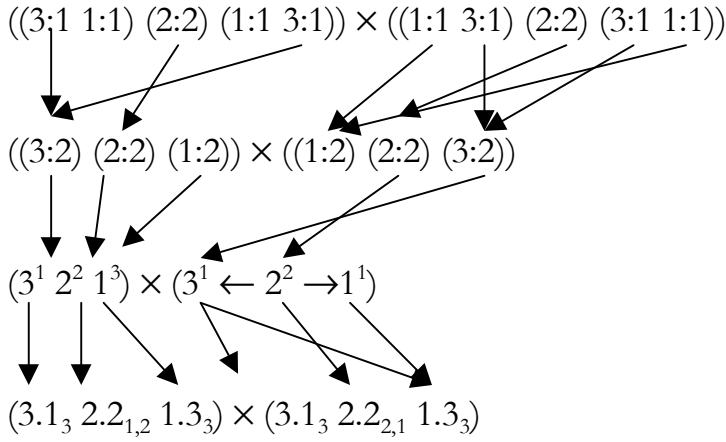
## The mappings of semiotic proto-, deutero- and trito-structures

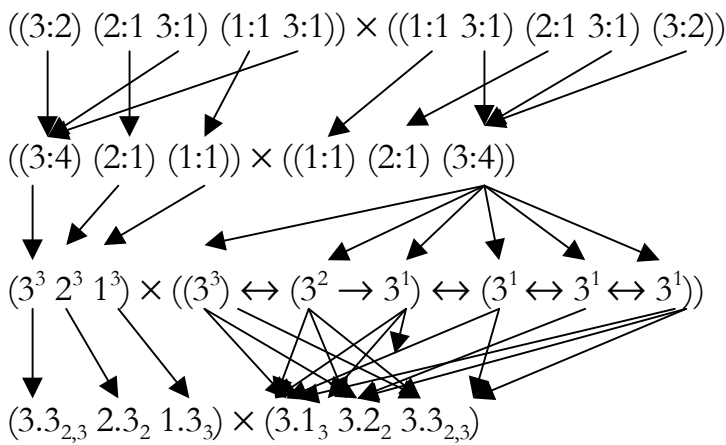
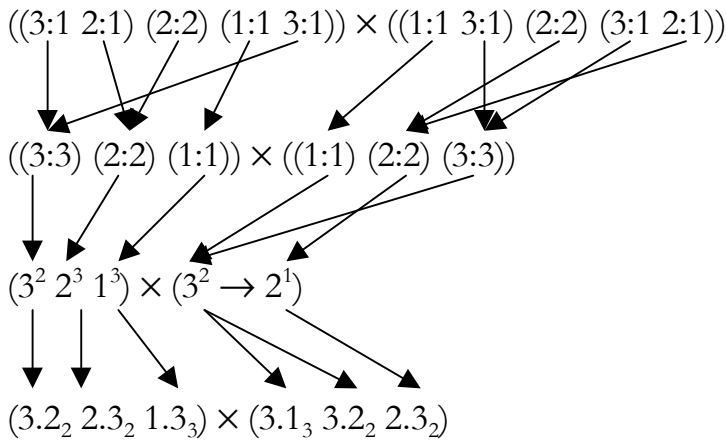
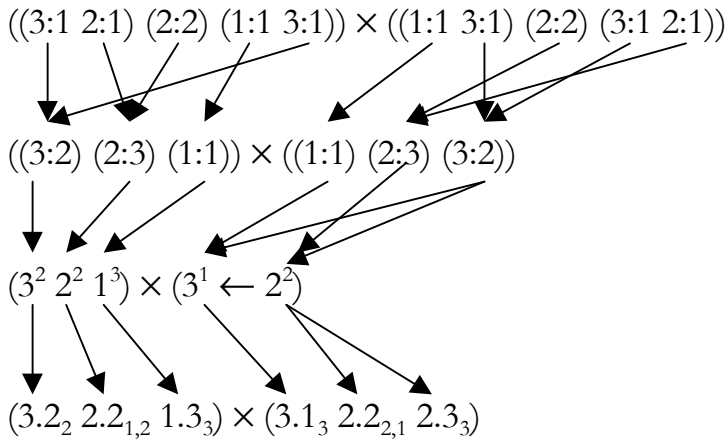
1. A sign is an element that substitutes an object by bridging World and Consciousness and thus ontological and semiotic space (cf. Bense 1975, pp. 45 s., 65 s.; Toth 2008, vol. 1, pp. 127 ss.). As such, the quantitative-mathematical notion of successor plays an eminent role (cf. Bense 1975, pp. 167 ss.; 1983, pp. 192 ss.). Therefore, a sign cannot be introduced as a sequence of kenograms, because kenograms are beyond the difference of consciousness and world, semiotic and ontological space, and also the notion of Peano succession does not hold. The consequence is that proto-, deutero- and trito-signs have to be defined independently from kenogramatics and morphogramatics. Especially the so-called Schadach-transformations that map Peano-numbers to proto-numbers, deutero-numbers, and trito-numbers (cf. Toth 2003, pp. 22 ss.), have to be redefined completely in order to work for signs that are on the level of qualitative numbers, but still signs, i.e. not on the same level of abstraction as kenosequences and morphograms. Moreover, we need mappings from proto- to deutero- and from deutero- to trito-structures.

2. In the following, we will write, based on Toth (2009a, b, c, d), the 10 Peircean sign classes first as a series of proto-signs, then as a proto-class, then in its deutero-form, and finally in its trito-form, i.e. in its used numerical-fundamental-categorical form, to which the semiotic contextures (or inner semiotic environments) are added. The mapping between the respective levels are thus introduced “intuitively” first.









## Bibliography

- Bense, Max, Semiotische Prozesse und Systeme. Baden-Baden 1975
- Bense, Max, Das Universum der Zeichen. Baden-Baden 1983
- Toth, Alfred, Die Hochzeit von Semiotik und Struktur. Klagenfurt 2003
- Toth, Alfred, Semiotics- and Pre-Semiotics. 2 Vols. (2008)
- Alfred, Toth, Semiotic proto- and deuterio-addition. In: Electronic Journal of Mathematical Semiotics, [http://www.mathematical-semiotics.com/pdf/Add\\_Deut\\_u\\_Proto.pdf](http://www.mathematical-semiotics.com/pdf/Add_Deut_u_Proto.pdf) (2009a)
- Toth, Alfred, The incompleteness of Peircean semiotics at the [http://www.mathematical-semiotics.com/pdf/Incompleteness\\_Interv..pdfm](http://www.mathematical-semiotics.com/pdf/Incompleteness_Interv..pdfm) (2000b)
- Toth, Alfred, Model of a 3-adic 3-contextural Proto-Semiotics. In: Electronic Journal of Mathematical Semiotics, <http://www.mathematical-semiotics.com/pdf/Proto-Semiotics.pdf> (2009c)
- Toth, Alfred, Model of a 3-adic 3-contextural Deuterio-Semiotics. In: Electronic Journal of Mathematical Semiotics,,<http://www.mathematical-semiotics.com/pdf/Deuterio-Sem..pdf>

2.3.2005