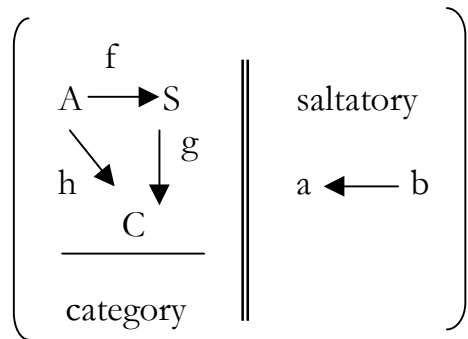


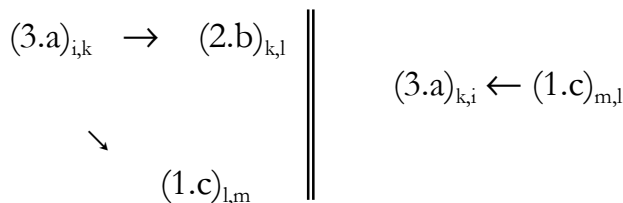
# Prof. Dr. Alfred Toth

## How many saltatories does a sign have?

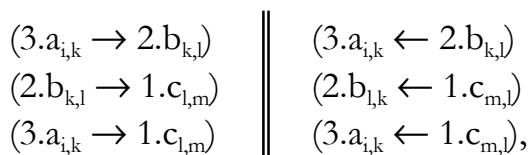
1. Rudolf Kaehr (e.g. Kaehr 2009, p. 1) introduces the basic element of diamond theory, the diamond category consisting out of category and its “saltatory” like follows:



Therefore, every sign class (3.a 2.b 1.c) has exactly one saltatory:



2. The question is now, what is a semiotic category. For Kaehr 2009 (as well as for me), it is obviously a sign class (or reality thematic). Then, we have two possibilities how to treat the sub-sings: 1. as objects, 2. as morphisms. In the second class, therefore, we have a functor category with a few nice properties that have never been applied yet to semiotics (and which we spare for another publication). However, since a sign class is semiotic category, we do not get one, but 6 saltatories:



corresponding to the following types of composition:

$$\begin{aligned}
 &(3.a_{i,j} \rightarrow 2.b_{k,l}) \diamond (2.l_{k,l} \rightarrow 1.c_{m,n}) \\
 &(1.c_{m,n} \rightarrow 2.b_{k,l}) \diamond (2.b_{k,l} \rightarrow 3.a_{i,j}) \\
 &(3.a_{i,j} \rightarrow 1.c_{m,n}) \diamond (1.c_{m,n} \rightarrow 2.b_{k,l}) \\
 &(2.b_{k,l} \rightarrow 1.c_{m,n}) \diamond (1.c_{m,n} \rightarrow 3.a_{i,j}) \\
 &(1.c_{m,n} \rightarrow 3.a_{i,j}) \diamond (3.l_{i,j} \leftarrow 2.b_{k,l}) \\
 &(2.b_{k,l} \rightarrow 3.a_{i,j}) \diamond (3.a_{i,j} \leftarrow 1.c_{m,n}),
 \end{aligned}$$

with matching conditions according to the maximal number 2 contextual indices, if  $C = 3$  and of maximal number of 3 contextual indices, if  $C = 4$  (maximal number in both cases with genuine sub-signs or identitive morphisms/functors, resp., Only). However, in contextures  $C \geq 3$ , we have  $3!$ ,  $4!$ ,  $5!$ , etc. possible permutations of the contextual indices, so that from categorial indices alone, we have in  $C = 4$  ( $3! = 6$ ), in  $C = 5$  ( $4! = 24$ ) weitere Saltatorien.

Hence, summing up, every 3-adic n-contextural sign class has  $3! = 6$  permutations of their objects or morphisms, resp., plus  $n!$  permutations of their caegorial indices, thus together  $3! \cdot n!$  saltisations.

## Bibliography

Kaehr, Rudolf, Generalized diamonds.  
[http://www.thinkartlab.com/pkl/media/Generalized Diamonds/Generalized Diamonds.pdf](http://www.thinkartlab.com/pkl/media/Generalized_Diamonds/Generalized_Diamonds.pdf) (2009)

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