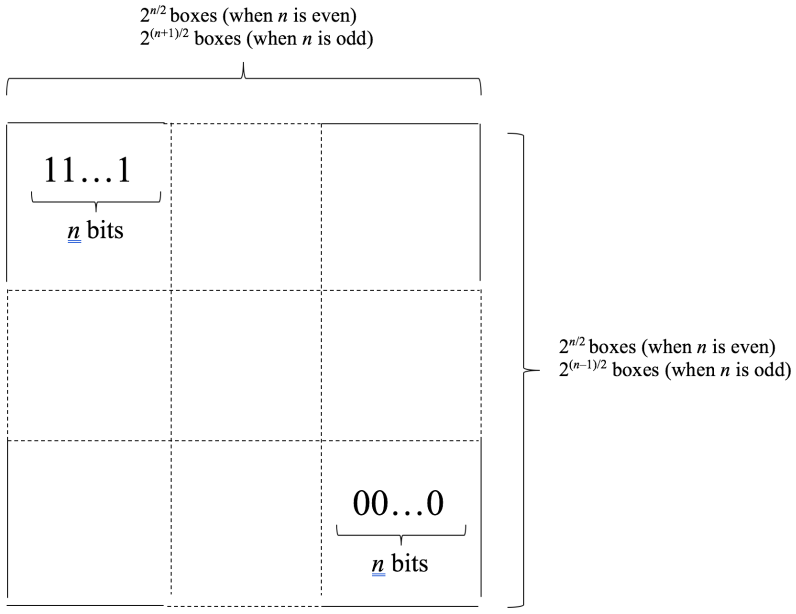
End of the square?

Fabien Schang
Universidade Estadual de Maringà, Brazil
schangfabien@gmail.com

It has been recently argued that the well-known square of opposition is a useless gathering that can be reduced to a one-dimensional figure, viz. an ordered line segment of positive and negative integers [1]. However, one-dimensionality leads to some difficulties once the structure of opposed terms goes beyond categorical statements, including logical hexagons.

An alternative structure is proposed in the present talk, relying upon a semantics of bitstrings and leading to a systematic gathering for any length n of the bitstrings [2, 3]: the structure is a rectangle whenever n is odd; it is a square whenever n is even, although the latter are not structured like the Aristotelian square.



References

1. A. Costa-Leite, "Opposition in a line segment", Cornell: arXiv:1604.03054, 2016.

2. F. Schang, "An Arithmetization of Logical Oppositions", in: *The Square of Opposition: A Cornerstone of Thought*, Basel: Birkhäuser.

3. H. Smessaert and L. Demey, "Logical Geometries and Information in the Square of Oppositions", *Journal of Logic, Language and Information*, vol. **23**, 2014, pp. 527–565.