

[CRISSP](#) is proud to present the fourth installment of Logic Now And Then:

LNAT4: Scales in language and logic

Brussels, September 20-21, 2018

Call for Papers

Theme description

Scalarity is a rich field of study in linguistics and logic. Linguistically, it enters into the meaning of a wide range of expressions. The best-known case in degree semantics may well be the gradable adjective (*tall, short, likely, good*), but cross-categorially many other cases have been detected and analysed in similar scalar terms:

- Verbs: degree achievement verbs (*broaden, widen*), directed motion (*rise, drop*), measure verbs (*cost*), psych-verbs (*like, amuse*);
- Nouns: gradable nouns (*an utter fool, a slight disappointment*);
- Adverbs: intensifying (*hard/much*), focus associating (*only, even, merely*);
- Prepositions: (*above, before, under*);
- Cardinal and ordinal numerals (*five, sixth*);
- Quantifiers (*many, more, most, all, few*).

Given the crucial role of scalarity in the semantics of vague adjectives and nouns (e.g. *tall, heap*), it can help to understand the *sorites* paradox, which has been studied extensively in philosophical logic (Keefe 2000). Some solutions to this paradox, such as Williamson's (1994) epistemicism, stick to classical logic, while others move to systems of many-valued logic. An interesting philosophical question is whether the latter move can or should be understood as transforming truth itself into a scalar notion.

The semantic scales that have been proposed in degree semantics to account for gradability are standardly (Kennedy 2007, Solt 2015) viewed as (i) a set of values (ii) with an associated ordering relation and (iii) a dimension of measurement. But that is where the uniformity ends, given that there are – in many cases real, in some cases possibly eliminable – elements of variation for each of the three components of a scale. Some scales are viewed as involving a discrete linear order of values, others as dense (with a third value between any two other values), though it has also been argued (Fox & Hackl 2006) that all measurement is dense. Some scales involve conventionalized units of measurement (*cm, min*, etc.), others don't. Some have scalar endpoints at both ends, some at neither, and some at one end (Kennedy & McNally 2005). The values on the scales have been identified as degrees, which can be thought as points on the scale (Beck 2011), but also as extents (Seuren 1973), vectors (Zwarts 2003), etc. (cf. Solt 2015, 23) And while there is a wide range of possible dimensions (volume, weight, age, duration, distance, etc.), the orders they involve come in a limited number of types (ordinal, interval or ratio orders). Moreover, such types of scales seem to be metaphorically connected to properties of spatial axes in a constrained number of ways (Nouwen, sd): vertical in the case of number (*under 50 attendants*), very often horizontal for time expressions (*after three minutes*), for instance.

Given that linguistic expressions of scalar opposition are so often latched on to spatial experience, it would also be useful to discover whether and, if so, which kinds of geometrical diagrams for scalarity have been proposed in the literature (a

case in point are those introduced in Ogden 1932, 16). While the question which diagrams have been proposed has a historical interest in its own right, the features of such diagrams may provide clarifying perspectives on the phenomenon itself.

Since a nonlinear relation between causal stimuli and their mental representation – in the form of compressed logarithmic scales – is characteristic of several modes of perception (colour vision, overtones in music, touch, taste, etc.), the possible connection between such perceptual scales in human cognition and scalarity as it surfaces in language and logic is an issue of considerable interest (cf. Dehaene et al. 2009 on number).

In view of the above, we welcome papers which contribute to the correct identification of (i) the nature and variation of scalarity in language and logic, (ii) the diagrams proposed for scalar notions, as well as (iii) the nature of possible connections between logico-linguistic scalar concepts and perception scales.

Invited speakers

We are pleased to announce that the following invited speakers have agreed to give a talk at LNAT4:

- Christopher Kennedy (University of Chicago)
<https://linguistics.uchicago.edu/faculty/kennedy>
- Stefanie Solt (Leibniz-Zentrum Allgemeine Sprachwissenschaft (ZAS))
http://www.zas.gwz-berlin.de/mitarbeiter_solt.html

Abstract Guidelines

Abstracts should be in PDF-format, anonymous, at most one page long, and should include any example sentences. A second page may be added for bibliographical references only. Please submit abstracts through EasyChair, using the following link:

- <https://easychair.org/conferences/?conf=lnat4>
- Conference e-mail: lnat4@crissp.be

Authors may submit at most one individual and one co-authored abstract.

The abstract submission deadline is **15 June 2018**, midnight, Brussels time. Notification of acceptance will be on July 15, 2018.

Important Dates

First call for papers: April 1, 2018

Second call for papers: May 1, 2018

Abstract submission deadline: June 15, 2018

Notification of acceptance: July 15, 2018

Conference: September 20-21, 2018

References

- Beck, Sigrid. 2011. Comparison constructions. *Semantics: An international handbook of natural language meaning*, Vol. 2, ed. By Claudia Maienborn, Klaus von Stechow and Paul Portner, 1341– 89. Berlin: De Gruyter Mouton.
- Dehaene, Stanislas, Véronique Izard, Elizabeth Spelke, Pierre Pica. 2009. Log or Linear? Distinct Intuitions of the Number Scale in Western and Amazonian Indigene Cultures. *Science* 323, 38c DOI: 10.1126/science.1164878.
- Fox, Danny & Martin Hackl. 2006. The universal density of measurement. *Linguistics and Philosophy*, Vol. 29, No. 5, pp. 537-586.
- Keefe, Rosanna. 2000. *Theories of Vagueness*. 2000. Cambridge University Press.

Kennedy, Christopher, and Louise McNally. 2005. Scale structure, degree modification and the semantics of gradable predicates. *Language* 81. 345–81.

Kennedy, Christopher. 2007. Vagueness and grammar: The semantics of relative and absolute gradable adjectives. *Linguistics and Philosophy* 30. 1–45.

Nouwen, Rick. s.d. On the vertical orientation of quantity, unpublished ms.,

Ogden, C.K. 1967 [1932]. *Opposition – A linguistic and psychological analysis. With a new introduction by I.A. Richards*. Bloomington: Indiana University Press.

Seuren, P. A. M. 1973. The Comparative, in: Kiefer, F. and N. Ruwet (Eds.) *Generative Grammar in Europe*. Dordrecht: Reidel.

Solt, Stefanie 2015. Measurement scales in natural language. *Language and Linguistics Compass*. 14-32.

Williamson, T. 1994. *Vagueness*. London: Routledge

Zwarts, J. 2003. Vectors across spatial domains: From place to size, orientation, shape and parts. In Emile van der Zee and John Slack, eds., *Representing Direction in Language and Space*. Oxford: Oxford University Press. 39–68.

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