

On the readings of *many*

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Partee (1989) and a long tradition thereafter distinguish two readings of *many*: the cardinal reading (1a) and the proportional reading (1b), with n and ρ as context-dependent parameters. Additionally, sentence (2) has been argued to give rise to a third reading –known in the literature as the 'reverse' proportional reading–, paraphrased in (3) and in virtue of which the sentence is judged true in scenario (4) (Westerstahl 1985, Herburger 1997, cf. Cohen 2001, a.o.). This intuitive paraphrase is formalized in (1c):

- (1) Many Ps are Q.
 - a. CARDINAL reading: $|P \cap Q| > n$, where n is a large natural number.
 - b. PROPORTIONAL reading: $|P \cap Q| : |P| > \rho$, where ρ is a large proportion.
 - c. REVERSE PROPORTIONAL reading: $|P \cap Q| : |Q| > \rho$, where ρ is a large proportion.
- (2) Many Scandinavians have won the Nobel Prize in literature.
- (3) Intuitive paraphrase of (2): 'Many of the Nobel Prize winners are Scandinavians'.
- (4) Scenario: Of the 81 Nobel Prize winners in literature, 14 come from Scandinavia.

The reverse proportional reading is problematic for semantic theory no matter whether we treat *many* as a determiner or as an adjective. As a determiner, it would be assigned the lexical entry in (5), which violates Conservativity, defined in (6) (Barwise & Cooper 1981, Keenan & Stavi 1986). If treated as an adjective inside the NP, then a severe compositionality problem arises: We need to build a proportion over $|Q|$ while having no λQ -argument, as in (7).

- (5) $\llbracket \text{many}_{\text{Det.rev.prop}} \rrbracket = \lambda P_{\langle e,t \rangle} . \lambda Q_{\langle e,t \rangle} . |P \cap Q| : |Q| > \rho$
- (6) A determiner denotation $f \in D_{\langle \langle e,t \rangle, \langle \langle e,t \rangle, t \rangle \rangle}$ is conservative iff, for any $P_{\langle e,t \rangle}$ and $Q_{\langle e,t \rangle}$:
 $f(P)(Q) = 1$ iff $f(P)(P \cap Q) = 1$
- (7) $\llbracket \text{many}_{\text{Adj.rev.prop}} \rrbracket = \lambda P_{\langle e,t \rangle} . \lambda x_e . P(x) \wedge |x| : |Q| > \rho$???

The present talk has three goals. First, we will clarify and refine the exact truth conditions of the reverse proportional reading. Second, using adjectival lexical entries for *many*, the refined truth conditions of the reverse proportional reading will be derived compositionally. Third and finally, we will consider a problematic related case –Herburger's (1997) reading– and derive it within the proposed analysis from independently needed ingredients.

Selected References

Cohen, A. 2001. Relative readings of many, often, and generics, *NLS* 9: 41-67. ♦ Hackl, M. 2000. *Comparative Quantifiers*. MIT diss. ♦ Herburger, E. 1997. Focus and weak noun phrases, *NLS* 5: 53–78. ♦ Partee, B. 1989. Many quantifiers, In: J. Powers and K. de Jong (eds.), *Proceedings of the Fifth Eastern States Conference on Linguistics*, 383–402. Columbus: OSU. ♦ Romero, M. 2015. The conservativity of *many*. In T. Brochhagen, F. Roelofsens and N. Theiler, eds., *Proceedings of the 20th Amsterdam Colloquium*, 20-29. ♦ Westerstahl, D. 1985. Logical constants in quantifier languages, *L&P* 8: 387-413.