

FC disjunction in state-based semantics

Maria Aloni

Logic in Language and in Conversation, Utrecht, 19-20 Sep 2016

In a state-based semantics sentences are interpreted with respect to states (defined as sets of possible worlds) rather than single possible worlds. This feature makes state-based semantics particularly suitable to capture the inherent epistemic and/or alternative-inducing nature of disjunctive words in natural language. In the first part of the talk, I will discuss three notions of disjunction that have been proposed in a state-based semantics with emphasis on their potential to account for Free Choice (FC) inferences when combined with a possibility modal. The first notion \vee_1 behaves like disjunction in classical logic; the second notion, \vee_2 , has been proposed in team logic (Yang and Väänänen, 2016) and assertion logic (Hawke and Steinert-Threlkeld, 2015); the third notion \vee_3 corresponds to inquisitive disjunction as in Ciardelli and Roelofsen (2011). Team/assertion logic \vee_2 in combination with a context-sensitive notion of modality à la Veltman (1996) derives wide scope FC inference (as discussed in Hawke and Steinert-Threlkeld, 2015). Inquisitive/truthmaker \vee_3 combined with Aloni’s (2007) alternative-sensitive notion of modality derives narrow scope FC inference. Neither combinations however can account for both wide scope and narrow scope FC. Furthermore, when free choice inducing sentences occur embedded under negation, both systems predict weaker readings than attested in ordinary language use. In the second part of the talk, I will present a novel state-based system, adopting \vee_2 , which derives both wide scope and narrow scope FC while solving the negation problem. Merits and shortcomings of this novel system will be discussed as well as its potential to be extended to account for free choice indefinites.

References

- Aloni, M. (2007). Free choice, modals and imperatives. *Natural Language Semantics*, **15**, 65–94.
- Ciardelli, I. and Roelofsen, F. (2011). Inquisitive logic. *Journal of Philosophical Logic*, **40**(1), 55–94.
- Hawke, P. and Steinert-Threlkeld, S. (2015). Informational dynamics of ‘*Might*’ assertions. In W. van der Hoek, W. Holliday, and W. Wang, editors, *Proceedings of Logic, Rationality, and Interaction (LORI-V)*, pages 143–155.
- Veltman, F. (1996). Defaults in Update Semantics. *Journal of Philosophical Logic*, **25**, 221–261.
- Yang, F. and Väänänen, J. (2016). Propositional team logics. Submitted.