

## **Why Eilam (2011) and Brasoveanu (2010) can and should be combined**

Dorit Ben Shalom and J.-R. Hayashishita

Inverse scope readings, defined as readings that reverse the surface syntactic order of quantifiers, have been a puzzle for a very long time. Traditionally, there have been two opposing positions on the relationship between inverse scope readings and surface scope readings (readings that do respect the syntactic order of quantifiers). One position, traced back to Keenan (1975), assumes that while surface scope readings come for 'free' from sentence syntax, inverse scope readings are somehow 'special'. We may understand this position to mean that sentence syntax can generate surface scope readings but not inverse scope readings, and the emergence of inverse scope readings requires an additional mechanism. The other position, originated by May (1977), maintains that surface and inverse readings are derived similarly by sentence syntax.

While the field predominantly has been adopting the latter position, we believe that the choice is merely a matter of convenience; there is no concrete evidence that the latter position is preferred to the former. It has been pointed out by Liu (1990), Ben Shalom (1993), and Hayashishita (1999; 2004; 2012), among others, that the availability of inverse scope readings is more limited than that of surface scope readings.

One option is to capture the limited availability of inverse scope readings by elaborating on sentence syntax (e.g., Szabolcsi 1997 Beghelli & Stowell 1997) or some filter mechanism imposed on sentence syntax (e.g., Fox 2000). To our knowledge, there have been no such attempts that successfully capture the relevant data. But pursuing it does not require a specification of a special mechanism.

Another option is to spell out the syntax and semantics of the special mechanism, a tall order. In this squib, we would like to argue that most, if not all, of the necessary ingredients are already 'on the market', and hint of a way one might be able to try and combine them to get the desired specification.

A key ingredient in this recipe is the quite old claim that inverse scope readings involve the notion of 'topic'. If that is accepted, what is still needed can be enumerated as follows:

1. A specification of the conditions under which a quantifier can serve as topic (e.g., Cresti 1995)
2. A model of the grammar that allows topic-hood to affect the input to semantics (e.g., Erteschik-Shir 1997)
3. A specification of how topic-hood affects that input (cf. Eilam's 2011 assumption that topics are the highest nodes in the relevant syntactic structure)
4. A compositional dynamic semantics that can in principle incorporate a notion like 'topic' (e.g., Brasoveanu 2010)

If this combination can be effected, one could have a quite 'traditional' account of inverse scope readings, using a combination of already existing tools.

Finally, there is also a small side benefit: if Brasoveanu (2010) interprets structures where syntactic and semantic order of quantifiers match, it would not need to assume lexical entries like WAS BITTEN for verbs like 'bite' to effect inverse scope readings. Much work still remains, but perhaps no wheel needs to be re-invented.

## References

- Beghelli, Filippo and Timothy Stowell. 1997. The Syntax of Distributivity and Negation. In *Ways of Scope Taking*, ed. by Anna Szabolcsi, 71-108. Dordrecht: Kluwer.
- Ben Shalom, Dorit. 1993. Object wide scope and semantic trees. In *Proceedings from semantics and linguistic theory III*, ed. By Utpal Lahiri and Adam Zachary Wyner, 19-37. Irvine: University of California.
- Brasoveanu, Adrian. 2010. Decomposing modal quantification. *Journal of Semantics* 27:437-527.
- Cresti, Diana. 1995. Indefinite topics. Doctoral dissertation, University of Massachusetts, Amherst, MA.
- Eilam, Aviad. 2011. Explorations in the informational component. Doctoral dissertation, University of Pennsylvania, Philadelphia, PA.
- Erteschik-Shir, Nomi. 1997. *The Dynamics of Focus Structure*. Cambridge, MA: Cambridge University Press.
- Fox, Danny. 2000. *Economy and Semantic Interpretation*. Cambridge, MA: MIT Press.
- Hayashishita, J.-R. 1999. Two Ways of Deriving Distributive Readings. In *Proceedings of the 23rd Annual Penn Linguistics Colloquium*, 201-216, University of Pennsylvania Working Papers in Linguistics Volume 6.1.
- Hayashishita, J.-R. 2004. Syntactic and Non-Syntactic Scope. Doctoral dissertation. University of Southern California, Los Angeles, CA.
- Hayashishita, J.-R. 2012. On the nature of inverse scope readings. Unpublished manuscript, University of Otago.
- Liu, F.-H. 1990. Scope Dependency in English and Chinese. Doctoral dissertation. University of California, Los Angeles, CA.
- Keenan, Edward. 1975. *Universal grammar: 15 essays*. London: Routledge.
- May, Robert. 1977. The grammar of quantification. Doctoral dissertation, MIT, Cambridge, MA.
- Szabolcsi, Anna. 1997. Strategies for Scope Taking. In *Ways of Scope Taking*, ed. by Anna Szabolcsi, 109-154. Dordrecht: Kluwer.

### **Affiliation**

Dorit Ben Shalom  
Department of Foreign Literatures and  
Linguistics  
Ben Gurion University of the Negev  
doritb@bgu.ac.il

J.-R. Hayashishita  
Department of Languages and Cultures  
University of Otago  
j-r.hayashishita@otago.ac.nz