

University of Groningen

When speakers are more logical than hearers

Mognon, Irene; Sprenger, Simone; Kuijper, Sanne; Hendriks, Petra

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2021

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Mognon, I., Sprenger, S., Kuijper, S., & Hendriks, P. (2021). *When speakers are more logical than hearers: Why children show adult-like production but not adult-like comprehension of scalar items*. Poster session presented at Experimental Methods in Language Acquisition Research, Utrecht, Netherlands.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

When speakers are more logical than hearers: why children show adult-like production but not adult-like comprehension of scalar items

Irene Mognon, Simone A. Sprenger, Sanne J. M. Kuijper, Petra Hendriks
Center for Language and Cognition Groningen, University of Groningen

An utterance such as “Some dinosaurs have feathers” is usually interpreted by adults as being equivalent to “Some but not all dinosaurs have feathers”. Preschoolers struggle to infer *some but not all* from *some*: their ability to draw this kind of inference, called scalar implicature, is not adult-like until the age of 5 or 6 (e.g., Foppolo et al., 2012, 2020; Guasti et al., 2005; Katsos & Bishop, 2011; Noveck, 2001; Papafragou & Musolino, 2003; Skordos & Papafragou, 2016). Despite this, some experimental studies point to a discrepancy between the well-attested children’s difficulties in comprehension and children’s almost adult-like use of *some* in production (Foppolo & Guasti, 2005; Katsos & Smith, 2010). Moreover, corpus data show that children are able to produce scalar items such as *some* with the upper-bounded meaning (*some but not all*) shortly after their second birthday (Eiteljoerge et al., 2018). Importantly, as confirmed by eye-tracking data (Huang & Snedeker, 2009), children’s difficulties emerge at the processing level too. Thus, their struggles in comprehension cannot be merely an artifact of task demands. Hence, a production-comprehension asymmetry seems to emerge in connection with scalar implicatures in language acquisition: the adult-like comprehension of a scalar item such as *some* requires three years more than the adult-like production of the same scalar item.

Here, we develop an account of children’s comprehension difficulties and production successes. We show that the asymmetry can be explained by the fact that, at the cognitive level, the production process and the comprehension process impose different requirements in terms of theory of mind. Specifically, we argue that the comprehension of *some* requires the hearer to consider the speaker’s perspective, but the production of *some* does not require the speaker to consider the hearer’s perspective. Hence, because of their still-developing theory of mind skills, young children are predicted to be able to produce, but not to interpret, *some* in an adult-like way. Besides highlighting the fundamental relation between recursive theory of mind and scalar implicature generation, our account can explain children’s variable performance in comprehension studies. Moreover, by clarifying the reason why numeral comprehension does not require implicature generation, our account sheds new light on children’s acquisition of number words.

References

- Eiteljoerge, S. F. V., Pouscoulous, N., & Lieven, E. V. M. (2018). Some pieces are missing: Implicature production in children. *Frontiers in Psychology, 9*(OCT).
- Foppolo, F., Guasti, M. T., & Chierchia, G. (2012). Scalar Implicatures in Child Language: Give Children a Chance. *Language Learning and Development, 8*(4), 365–394.
- Foppolo, F., Mazzaggio, G., Panzeri, F., & Surian, L. (2020). Scalar and ad-hoc pragmatic inferences in children: guess which one is easier. *Journal of Child Language, 1*–23.
- Guasti, M. T., Chierchia, G., Crain, S., Foppolo, F., Gualmini, A., & Meroni, L. (2005). Why children and adults sometimes (but not always) compute implicatures. *Language and Cognitive Processes, 20*(5), 667–696.
- Huang, Y. T., & Snedeker, J. (2009). Semantic Meaning and Pragmatic Interpretation in 5-Year-Olds: Evidence From Real-Time Spoken Language Comprehension. *Developmental Psychology, 45*(6), 1723–1739.
- Katsos, N., & Bishop, D. V. M. (2011). Pragmatic tolerance: Implications for the acquisition of informativeness and implicature. *Cognition*.
- Noveck, I. A. (2001). When children are more logical than adults: experimental investigations of scalar implicature. *Cognition, 78*(2), 165–188.
- Papafragou, A., & Musolino, J. (2003). Scalar implicatures: Experiments at the semantics-pragmatics interface. *Cognition, 86*(3), 253–282.
- Skordos, D., & Papafragou, A. (2016). Children’s derivation of scalar implicatures: Alternatives and relevance. *Cognition, 153*, 6–18.