**Replies to reviewers’ comments:**

**Reviewer 1**

*I'm grateful to the authors for their detailed responses to the previous round of review comments. Most of the issues appear to be dealt with satisfactorily in this revision, and I agree that the discussion of RSA approaches is relevant here and that its inclusion enhances the paper.*

We are glad that our revision enhanced the paper, thank you for the helpful feedback and suggestions.

*Nevertheless, I continue to think that the authors are playing somewhat fast and loose with the term "implicature" in the light of the existing literature. To take one notable example cited in the review responses, Goodman and Frank (2016) are considerably more circumspect in how they use the term: indeed, they bookend their discussion of ad hoc inferences by remarking "Finally, in addition to ad-hoc signaling systems, RSA provides a way to describe reasoning about classic linguistic implicatures." (ibid., 823). That is, we have on the one hand ad-hoc signaling systems of the type described in this paper, and on the other hand "classic linguistic implicatures". The term "implicature" is especially noticeable by its absence on p.820 of their paper, where the reasoning is elucidated in full.*

*This terminological distinction reflects a long-standing theoretical stance, established by Grice and defended at great length by researchers such as Kent Bach, that "implicature" is a form of meaning intentionally conveyed by the speaker and recovered by the hearer. In the paradigm being discussed here, we can distinguish (at least in principle) ad hoc implicature from referential intention. If the speaker means an utterance such as "My friend has glasses" (to return to the Stiller example) to convey "My friend has no hat", we can call that latter meaning an ad hoc implicature. However, if they merely mean to direct the hearer to a specific picture, they need not rely on implicating the proposition about whether the friend has a hat: they might be able to exploit the hearer's ability to perform rational inference about their referential intention.*

*Now, we can debate whether this is an important distinction or not - but one obvious reason that it might be, for the present purposes, is that this study is designed to demonstrate something about the development of ad hoc implicature, and when we talk about ad hoc implicature in adults, we often mean something like the intentional conveying of a stronger meaning through the expression of a weaker one. Indeed, the initial examples discussed in this paper are uncontroversially ad hoc implicatures. For people who don't think adult ad hoc implicatures are purely a matter of RSA-style reasoning, but have some privileged status, demonstrating the availability of RSA-style reasoning in younger children doesn't really say anything about the emergence of ad hoc implicature, as it really is in adults.*

*Mutual exclusivity, discussed briefly later in the paper, represents an illustrative example. As the authors point out, "evidence for children's pragmatic word learning emerges earlier than implicature computation". I agree, but I don't see any principled reason why mutual exclusivity inferences aren't themselves "implicatures", by the criteria adopted in this paper.*

*In short, my preference would be to acknowledge that the implicature-consistent behaviour targeted in this paper might be something distinct from implicature in the strict sense, and that the strongest interpretation of these data relies on the assumption that children are resolving these referential cases using fundamentally the same mechanism that adults use to resolve classic ad hoc implicatures, whether these are RSA-like or more traditionally Gricean in character.*

Thank you very much for this helpful, detailed advice. We have now modified our wordings or provided caveats to our interpretations in several places to reflect the reviewer’s suggestion, e.g.,:

We changed our wording in the abstract from “… found evidence for successful implicature computation by children …” to “… found evidence for successful pragmatic inferences by children …”;

“While there are disagreements about whether implicatures have a privileged status over other kinds of rational inferences, different theoretical stances can have varying implications for interpretations of developmental trends” (p. 6); and

“... we believe that we are addressing development of implicatures in general, with a caveat that our definition of implicatures does pertain to broader inferential reasoning between speakers and listeners, rather than having a special status or mechanism as assumed under particular formalisms” (p. 23).