Dear Developmental Science Editorial Board, April 10, 2023

We hereby submit our manuscript entitled *“****The Role of Vision in the Acquisition of Words: Vocabulary Development in Blind Toddlers”*** for consideration as a **research article*.*** This study looks at the size and contents of the early lexicon in congenitally blind toddlers, asking about the role of visual access in early word production. Our results provide an advance over prior work in three key ways:

1. We find that blind children in our sample show a roughly half-year productive vocabulary delay relative to sighted peers, and that contrary to prior research, these delays increase as children get older. These results suggest that vision facilitates children’s ability to learn words. At the same time we find that the words blind children say are nearly identical to the words sighted children say, in terms of their length, grammatical class, meaning, and even “visualness” based on independent ratings.
2. Given the extremely low incidence of congenital blindness (N=~1/10,000 live births; Gilbert & Awan, 2003), most work with blind children (e.g. Landau & Gleitman’s seminal 1985 book) bases its conclusions on samples of <6 children, making both individual and group level statistical analyses challenging to interpret, and sometimes leading to inconsistent results.  Here, we present data from 70 vocabulary checklist administrations to 40 young blind children, alongside sighted controls drawn from >6k sighted children from Wordbank (Frank et al, 2021), adding in a substantial way to the evidence base in this area.
3. This relatively large dataset allows us to explore the effect of vision on vocabulary composition in a more granular way. We find that “visual” words that blind children learn tend to be more multimodal and less visual than those said by their sighted peers. This in turn helps illuminate the role of perceptual input in language learning.

In sum, this paper makes a new contribution to developmental science: Our findings are, to our knowledge, the first to show that while perceptual access does appear to shape the *timing* of early word production, it exerts quite limited influence on the *content* of the early lexicon.

We believe this paper will be of great interest to your readership, as it spans developmental psychological science, linguistics, and cognitive science, with implications for education and clinical translation.

Please contact corresponding author Erin Campbell if you have any queries about our submission. We can confirm that this study complies with all ethical standards required for publication in *Developmental Science*, that parents of all participants provided informed consent, and that all authors have approved the manuscript and agree with its submission to this journal. We further confirm that this manuscript has not been published elsewhere and is not under consideration by another journal.

We suggest the following people for consideration of reviewers, who to our knowledge would provide expert and unbiased reviews:

* Dr. Miguel Pérez-Pereira (University of Santiago de Compostela; miguel.perez.pereira@usc.es): for his expertise in social interaction between young blind children and their caregivers
* Dr. Marina Bedny (Johns Hopkins University; marina.bedny@jhu.edu): for her work on semantic knowledge and neural plasticity in congenitally blind children and adults
* Dr. Rana Abu-Zhaya (University of Plymouth; rana.abu-zhaya@plymouth.ac.uk): for her research on how children learn language from multi-sensory input

Kind regards,

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