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Introduction

People with aphasia (PWA) often experience moments of struggle during conversation. When this happens, interlocutors may interrupt the PWA (Beeke et al. 2007) or complete their sentences with guesses (Purves, 2009). Alternatively, the partner may provide time for the PWA to complete the utterance. Here, we explored the value of a non-time pressured conversational environment where PWA had the opportunity to complete their utterances. We analyzed effortful utterances defined as turns featuring pauses/filled pauses, using Bloom and Lahey's (1978) "form, content, and use" framework.

Methods

Ten people with minimal/moderate aphasia held two conversations with two different people (usually SLPs). The partners allowed the PWA time to communicate ideas and to self-correct. The partners did not make guesses or suggest compensations. 8-12 minute samples were transcribed. The first author located every pause/filled pause of ≥ 2 seconds, and RAs confirmed each (100% agreement).

Effortful utterances where the PWA commented on the difficulty (e.g., "I know the word") were coded as production comments. We analyzed the remaining utterances using the following procedure. To analyze form, we counted the number of words produced. To analyze content, we coded the semantic information communicated using Renoult et al.'s (2020) categories of semantic content: general facts, autobiographical facts, self-knowledge, and expression of repeated events. To analyze language use, we examined the discourse function achieved by each effortful utterance according to Eggins and Slade (1997). Each was classified as an opinion, statement or question. Then we classified each as to whether its function entailed new information ('opening move'); expansion on the PWA's previous move ('continuing move'); or a reaction to the partner's previous move ('reacting/responding move').

Some utterances contributed informative words (i.e., 'contributory'), but were so short or unclear that they could not be classified with specificity for semantic and/or pragmatic content. However, some utterances made no informative contribution whatsoever, and were designated 'non-informative'.

Reliability was conducted on 20% of the data, with these results: transcription, 91.0%; semantic coding, 82.1%; discourse function coding, 84.4%. Word productivity was tallied by RAs and double-checked by the authors.

Results:
We identified 313 effortful utterances, with an average of 3.72 words produced per utterance. Production comments comprised 10.9% of the data; contributory utterances comprised 8.3% of the data; and non-informative utterances comprised 4.5% of the data. For semantic content, 41.5% of utterances contained autobiographical facts, 20.4% were general knowledge, 9.3% were self-knowledge, and 1.9% were repeated events. For discourse function, 38.9% of utterances were opening moves, 23.3% were continuing moves and 15.9% were reacting/responding moves.

Conclusions
Overall, self-completion of effortful utterances by the PWA resulted in communicatively meaningful information (i.e., production utterances, contributory utterances, and semantically and/or pragmatically classifiable utterances) for 95.5% of the data. The PWA contributed mostly autobiographical facts and general knowledge, with 40% of turns classified as opening moves in which they directed the trajectory of conversation. These results demonstrate that when PWA are provided additional time and an engaged listener, it is possible for them to express their ideas, thereby making an active contribution to conversation.

References
Beeke, S., Wilkinson, R., & Maxim, J. (2007). Grammar without sentence structure: A conversation analytic investigation of agrammatism. *Aphasiology, 21*(3-4), 256-282.

Bloom, L., & Lahey, M. (1978). Language disorders and language development. Macmillan.

Eggins, S., & Slade, D. (1997). *Analysing casual conversation.* Equinox.

Purves, B. A. (2009). The complexities of speaking for another. *Aphasiology, 23*(708), 914-925.

Renoult, L., Armson, M. J., Diamond, N. B., Fan, C. L., Jeyakumar, N, Levesque, L. … Levine, B. (2020). Classification of general and personal semantic details in the Autobiographical Interview. *Neuropsychologia,* 144.https://doi.org/10.1016/j.neuropsychologia.2020.107501.