

Resource Summary Report

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Disturbing the rhythm of thought: speech pausing patterns in schizophrenia, with and without formal thought disorder

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Summary: Everyday speech is produced with an intricate timing pattern and rhythm. Speech units follow each other with short interleaving pauses, which can be either bridged by fillers (erm, ah) or empty. Through their syntactic positions, pauses connect to the thoughts expressed. We investigated whether disturbances of thought in schizophrenia are manifest in patterns at this level of linguistic organization, whether these are seen in first degree relatives (FDR) and how specific they are to formal thought disorder (FTD). Spontaneous speech from 15 participants without FTD (SZ-FTD), 15 with FTD (SZ+FTD), 15 FDRs and 15 neurotypical controls (NC) was obtained from a storytelling task and rated for pauses subclassified by syntactic position and duration. SZ-FTD produced significantly more unfilled pauses than NC in utterance-initial positions and before embedded clauses. Unfilled pauses occurring withinclausal units did not distinguish any groups. SZ-FTD also differed from SZ+FTD in producing significantly more pauses before embedded clauses. SZ+FTD differed from NC and FDR only in 'long' (between 1 and 3 seconds) utterance-initial pauses. FDRs produced significantly fewer fillers than NC. Results reveal that the temporal organization of speech is an important window on disturbances of the thought process and how these relate to language.

Associated Publications: Çokal D, Zimmerer V, Turkington D, Ferrier N, Varley R, Watson S, Hinzen W (2019) Disturbing the rhythm of thought: Speech pausing patterns in schizophrenia, with and without formal thought disorder. PLoS ONE 14(5): e0217404. doi: [10.1371/journal.pone.0217404](https://doi.org/10.1371/journal.pone.0217404)

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