

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Vocal patterns in schizophrenia: toward a cumulative approach

Permalink

<https://escholarship.org/uc/item/1z96b7nc>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 43(43)

Authors

Parola, Alberto
Arndis, Simonsen
Vibeke, Bliksted
et al.

Publication Date

2021

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

Vocal patterns in schizophrenia: toward a cumulative approach

Alberto Parola

Aarhus University, Aarhus, Denmark

Simonsen Arndis

Aarhus University, Aarhus, Denmark

Bliksted Vibeke

Aarhus University, Aarhus, Denmark

Yuan Zhou

Chinese Academy of Sciences, Beijing, China

Shiho Ubukata

Kyoto University, Kyoto, Japan

Katja Koelkebeck

Hospital and Institute of the University of Duisburg-Essen, Essen, Germany

Riccardo Fusaroli

Aarhus University, Aarhus, Denmark, Denmark

Abstract

Voice atypicalities are a characteristic feature of schizophrenia, often associated with core negative symptoms. A recent meta-analysis identified atypicalities in pitch, speech rate, and pauses. However, heterogeneity across studies was large and replications almost nonexistent. Further, it is not clear whether vocal patterns are directly related to the mechanisms underlying the disorder and could therefore be found across languages, or not. In this study we implemented a more rigorously cumulative scientific approach by collecting and analyzing a large cross-linguistic corpus of voice recordings. We critically employed meta-analytic priors to systematically assess the replicability of previous findings, and modeled between-participants variability and cross-linguistic differences. We replicate previous meta-analytic findings across all languages for reduced pitch variability, while increased pause duration and lower speech rate results were replicated only in some languages. Most atypical voice patterns, thus, seem not to be distinctive of schizophrenia in general, but more specifically situated in linguistic/cultural differences.