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Untwisting amusia

What behavior, brain waves and genetic underpinnings reveal about perception in congenital amusia

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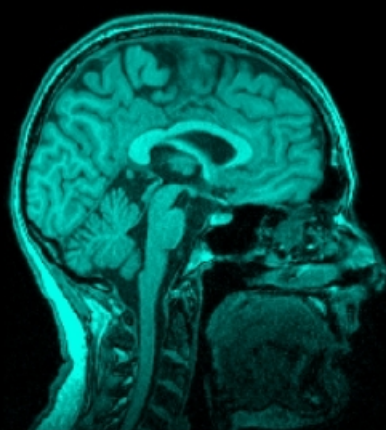
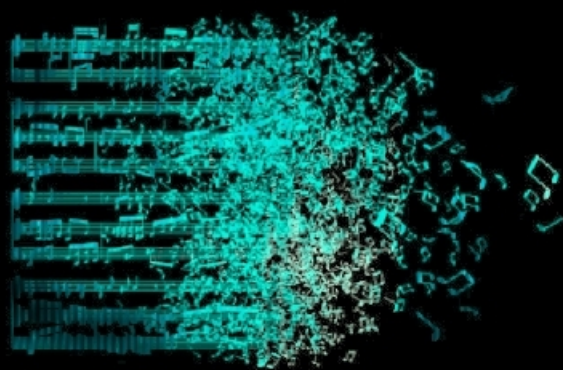
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Jasmin Pfeifer

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Untwisting Amusia

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ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. ir. K.I.J. Maex

ten overstaan van een door het College voor Promoties ingestelde commissie,
in het openbaar te verdedigen in de Agnietenkapel
op vrijdag 04 maart 2022, te 10:00 uur

door Jasmin Pfeifer

geboren te Meerbusch/Neuss

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<i>Promotores:</i>	prof. dr. P.P.G. Boersma prof. dr. P. Indefrey	Universiteit van Amsterdam Heinrich-Heine-Universität Düsseldorf
<i>Copromotores:</i>	dr. S.R. Hamann prof. dr. H.J. Honing	Universiteit van Amsterdam Universiteit van Amsterdam
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Faculteit der Geesteswetenschappen

Dit proefschrift is tot stand gekomen binnen een samenwerkingsverband tussen de Universiteit van Amsterdam en Heinrich-Heine-Universität met als doel het behalen van een gezamenlijk doctoraat. Het proefschrift is voorbereid in de Faculteit der Geesteswetenschappen van de Universiteit van Amsterdam en de Faculteit der Geesteswetenschappen van de Heinrich-Heine-Universität.

This thesis was prepared within a partnership between the University of Amsterdam and the Heinrich-Heine-Universität with the purpose of obtaining a joint doctorate degree. The thesis was prepared in the Faculty of Humanities at the University of Amsterdam and in the Faculty of Arts and Humanities at the Heinrich-Heine-Universität.

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Author Contributions

1. Introduction

Jasmin Pfeifer wrote and revised the introduction with feedback from Silke Hamann.

2. The Diagnosis of Congenital Amusia

Chapter 2 is based on two published articles:

Pfeifer, Jasmin & Silke Hamann (2015). Revising the diagnosis of congenital amusia with the Montreal Battery of Evaluation of Amusia, *Frontiers in Human Neurosciences* 9:161.

Pfeifer, Jasmin & Silke Hamann (2015). Web-based testing of congenital amusia with the Montreal Battery of Evaluation of Amusia, *Proceedings of the Ninth Triennial Conference of the European Society for the Cognitive Sciences of Music*, eds. Ginsborg, J., Lamont, A., Phillips, M., Bramley, S.

JP posed the research question, recruited and tested the participants, programmed the laboratory-based experiment and chose and performed the statistical analyses and wrote a first draft of the manuscript. Both JP and SH discussed and interpreted the results together, and together restructured and rewrote the text.

The provided explanation applies to both articles.

3. Vowel Perception in Congenital Amusia

Chapter 3 is yet to be submitted.

Pfeifer, Jasmin & Silke Hamann
(to be submitted)

JP recruited and tested the participants, chose and performed the statistical analyses and wrote a first draft of the manuscript. Both JP and SH posed the research question, designed the experiments together, discussed and interpreted the results together, and together restructured and rewrote the text.

4. Word Stress Perception by Congenital Amusics

Chapter IV is based on an accepted book chapter.

Pfeifer, Jasmin & Silke Hamann. Word Stress Perception by Congenital Amusics

(accepted as a chapter in: *How Language Speaks to Music*, eds: Mathias Scharinger, Richard Wiese; Mouton de Gruyter.)

JP recruited and tested the participants, chose and performed the statistical analyses and wrote a first draft of the manuscript. SH created the stimuli. Both JP and SH posed the research question, designed the experiments together, discussed and interpreted the results together, and together restructured and rewrote the text.

5. The Nature and Nurture of Congenital Amusia: A Twin Case Study

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JP posed the research question, recruited and tested the participants, chose and performed the statistical analyses and wrote a first draft of the manuscript. Both JP and SH designed the experiments together, discussed and interpreted the results together, and together restructured and rewrote the text.

6. Conclusion

Jasmin Pfeifer wrote and revised the conclusion with feedback from Silke Hamann.

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