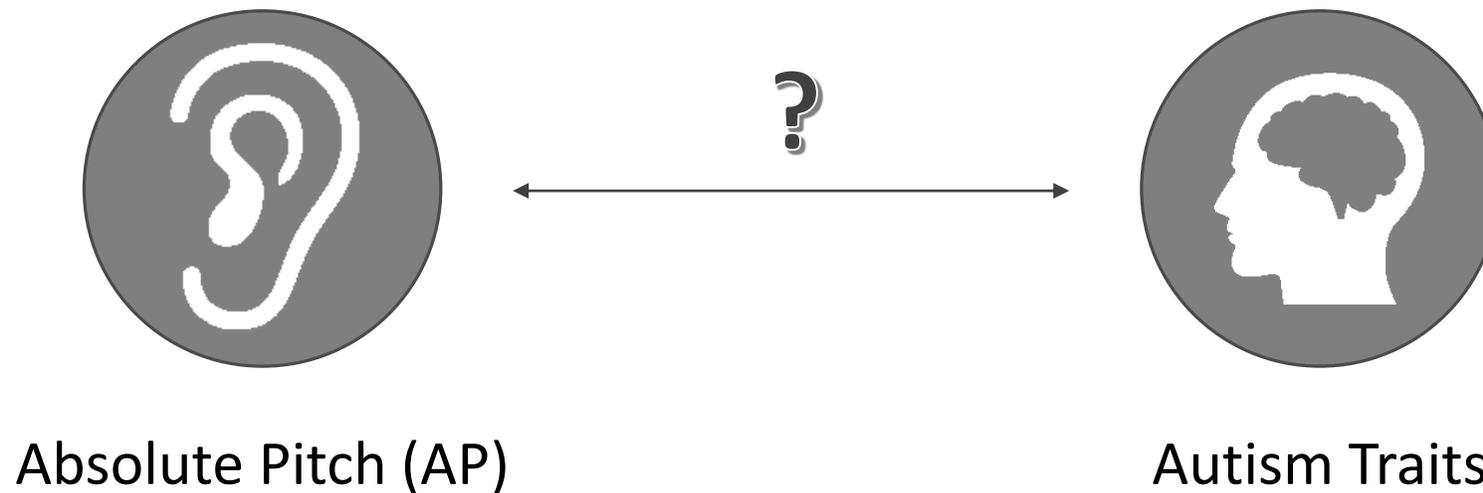


The Relation Between Perfect Pitch And Autism Traits

by Juliane Imme & Alexis Cantacuzino

Background

Dohn, Anders et al. "Do musicians with perfect pitch have more autism traits than musicians without perfect pitch? An empirical study" PloS one vol. 7,5 (2012): e37961.



The Autism Spectrum Quotient

Baron-Cohen, S. et al. "The Autism-Spectrum Quotient (AQ): Evidence from Asperger syndrome/high-functioning autism, males and females, scientists and mathematicians" *Journal of Autism and Developmental Disorders*, 31(1), 5-17 (2001).

Questionnaire
with 50 items



5 subscales



Social Skills



Attention Switching



Attention to Detail

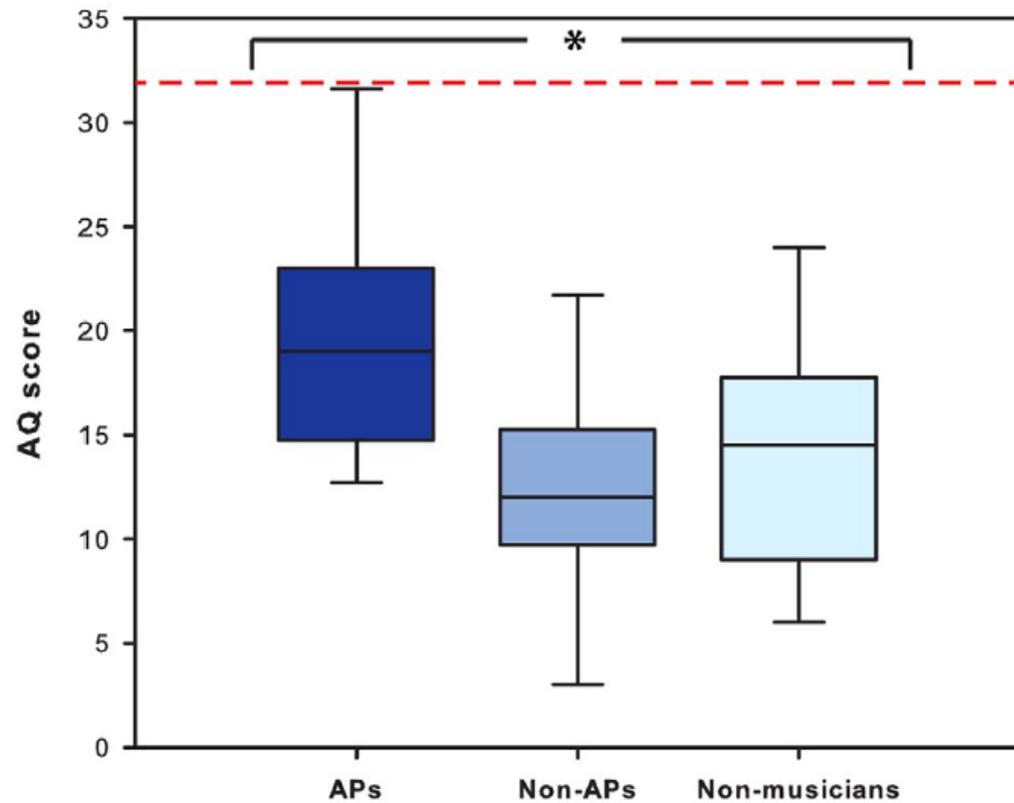


Communication



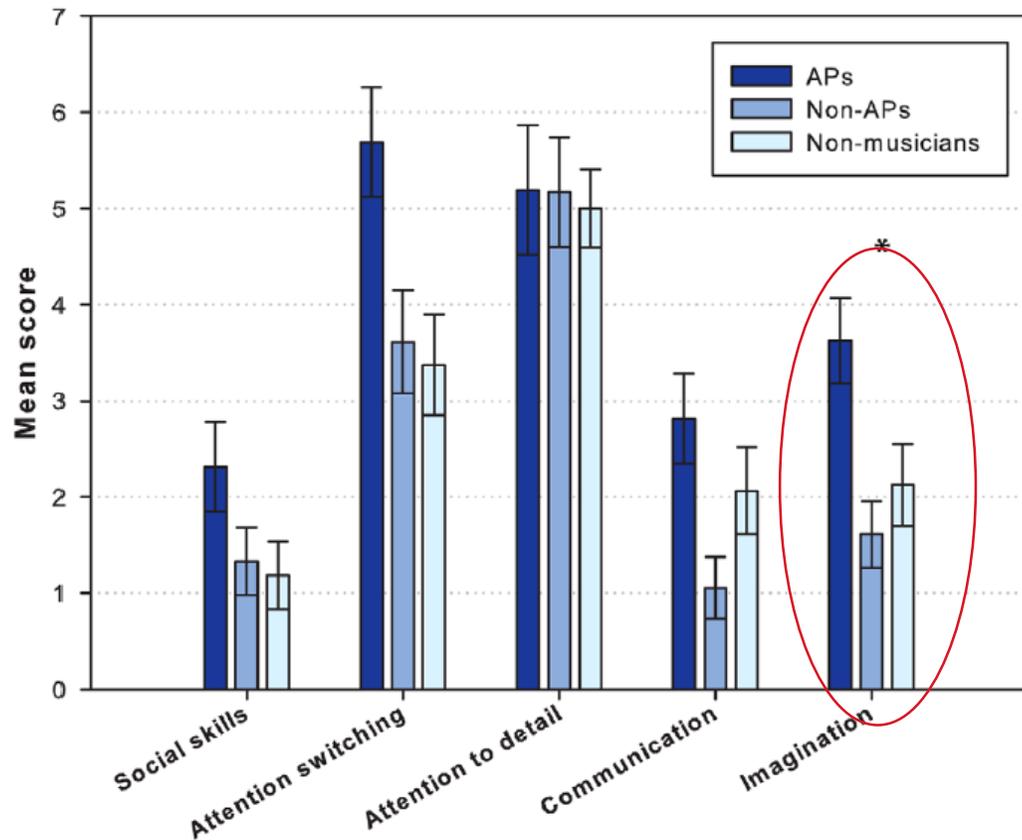
Imagination

Dohn et al.



Significantly
higher degree of autism
traits in APs than in non-APs

Dohn et al.



Significant difference in imagination in APs and non-APs

Motivation For Our Study

1

Replication of the findings (influence of perfect pitch on autism traits)

2

Exploration of the differences in imagination in APs and non-APs

Our Study



Online Survey

Structure:

- Personal assessments of musicality
- Pitch Identification Test
- Autism Spectrum Quotient
- Two-Factor Imagination Scale
- Demographics

Two-Factor Imagination Scale

Thompson J. (2008) Two-Factor Imagination Scale (TFIS). Available from: <<https://twofactorimaginationscale.com/>> [9 February 2019]

- 1 Spontaneous Imagining
- 2 Controlled Imagining

Challenges – What is Perfect Pitch?

Our Pitch Identification Test



Participants were asked to listen to different sine tones and to identify them

Problems



No standardized test

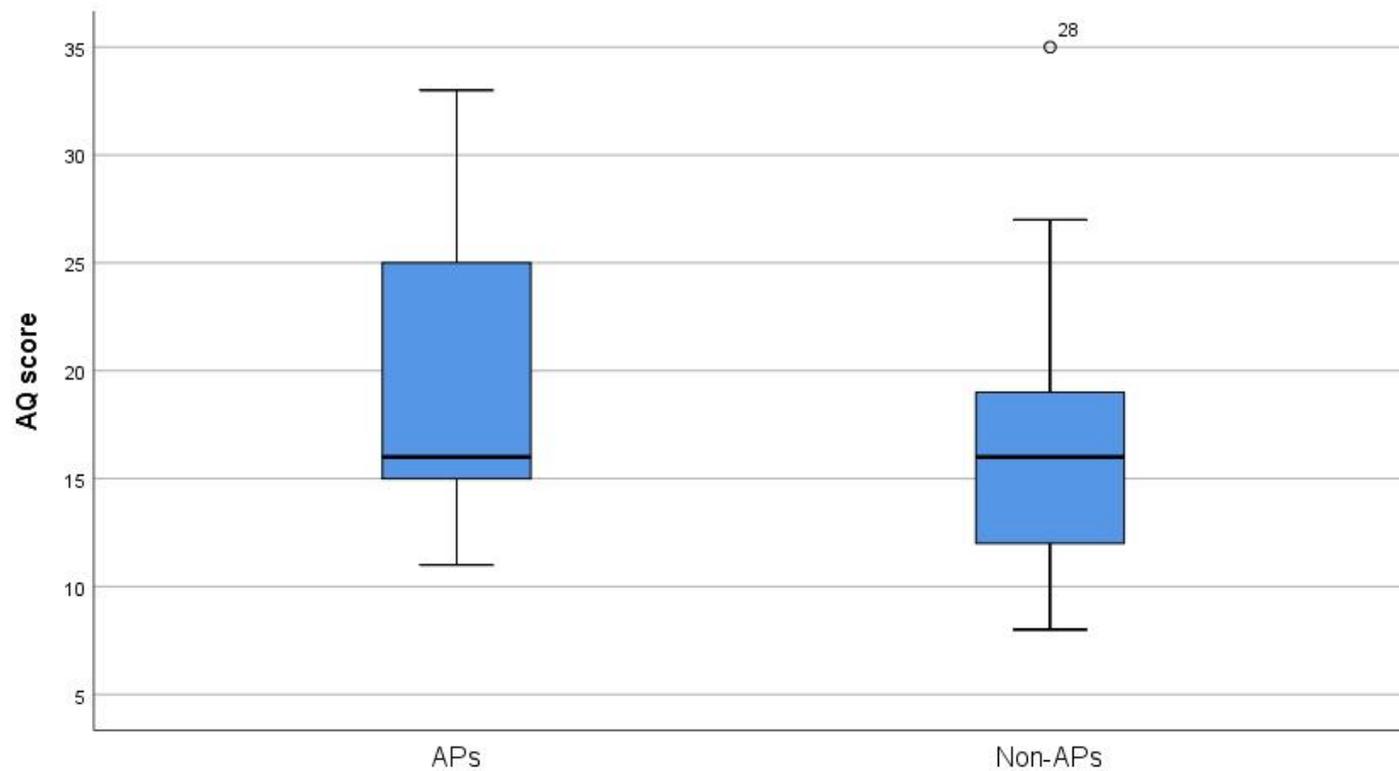


Right note but wrong octave considered as good answer?

Results

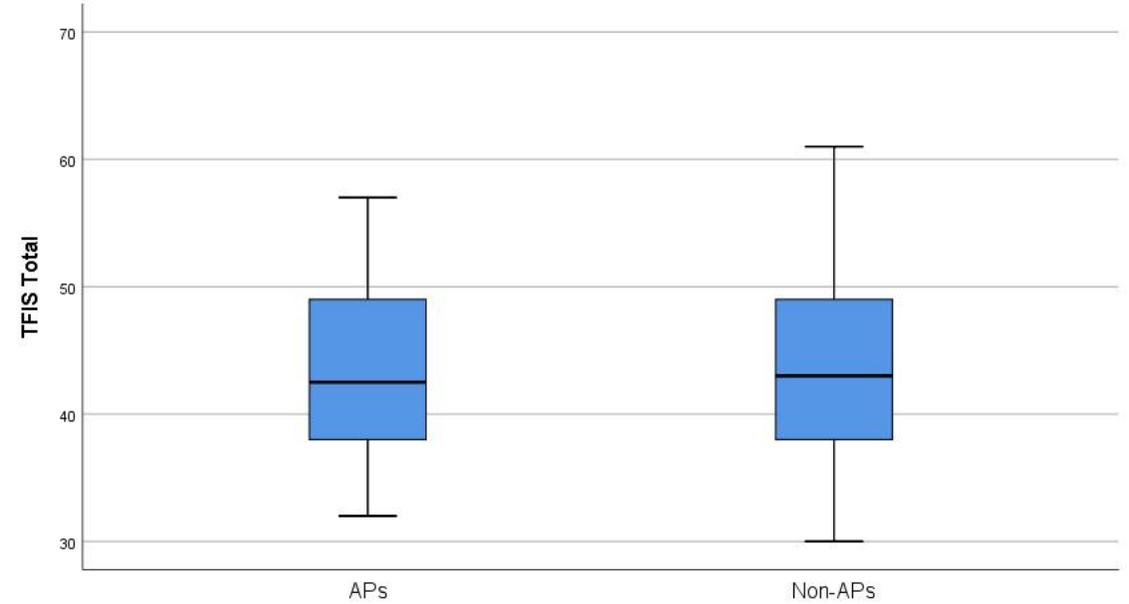
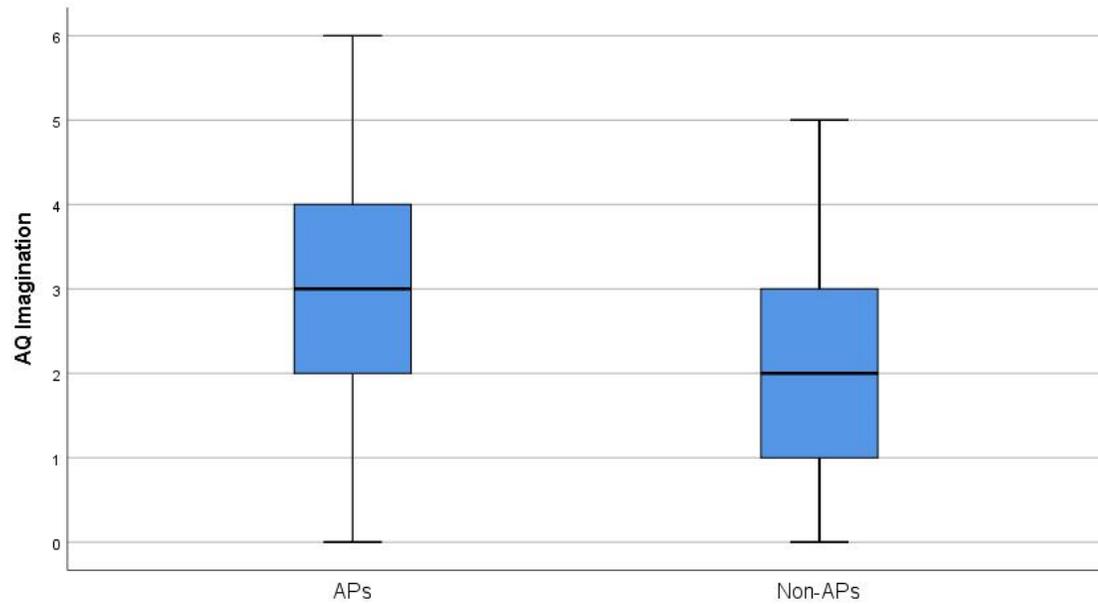
- 43 Participants
- AP: 14 (9 male, 5 female)
- Non-AP: 29 (12 male, 17 female)
- Age: 18-60 (M=30.3, SD=12)

Results – Autism and Absolute Pitch



No significant difference
between AP and non-AP ($p=.322$)

Results - Imagination



Summary

1

Replication failed

2

No significant difference in AQ between APs and non-Aps

3

No difference in imagination

4

No correlation between AQ-imagination and TFIS