

Zooming on the spectrum

Exploring the relationship between Zoom-fatigue, autistic traits and sensory sensitivity
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SUMMARY

Background: Since the onset of the COVID-19 pandemic, video conferencing (VC) has become an integral part of our society. While VC is often a convenient alternative to meeting face-to-face, it may induce symptoms of mental and physical exhaustion. One potential factor that may contribute to these symptoms, collectively known as *Zoom-fatigue*, is that compared to face-to-face meetings, VC requires increased cognitive and sensory demands, which may lead to sensory overload.¹

Individuals with autism spectrum disorder (ASD) may be more susceptible to Zoom fatigue because the socio-communicative difficulties and alterations in *sensory sensitivity* associated with ASD may pose as potential risk factors for Zoom-fatigue.²

Objective: This study aimed to examine the relationship between symptoms of Zoom-fatigue, autistic traits and sensory sensitivity. It was expected that individuals with higher levels of *autistic traits* were more susceptible to Zoom fatigue symptoms.

Methods: A large-scale online survey was conducted among 344 older adolescents and young adult Dutch university students. Zoom fatigue was measured using the Zoom Exhaustion & Fatigue (ZEF) scale.³ Autistic traits were assessed with the Autism Spectrum Quotient (AQ)⁴ and sensory sensitivity was measured using the Glasgow Sensory Questionnaire (GSQ).⁵

Results: Statistical analyses showed that increased levels of autistic traits were associated with increased self-reported symptoms of Zoom fatigue, and that this relationship was partially mediated by sensory sensitivity.

Conclusions: The current results suggest that individuals with increased autistic symptomatology may face unique challenges in the use of VC. These findings may help increase awareness of neurodiversity in computer-mediated communication and may provide an impetus for the development of more accessible and inclusive VC solutions.



METHODS

PARTICIPANTS

N	σ/♀/X	Age (SD)	Range
344	290/52/2	19.66 (1.85)	17-30 years

MATERIALS

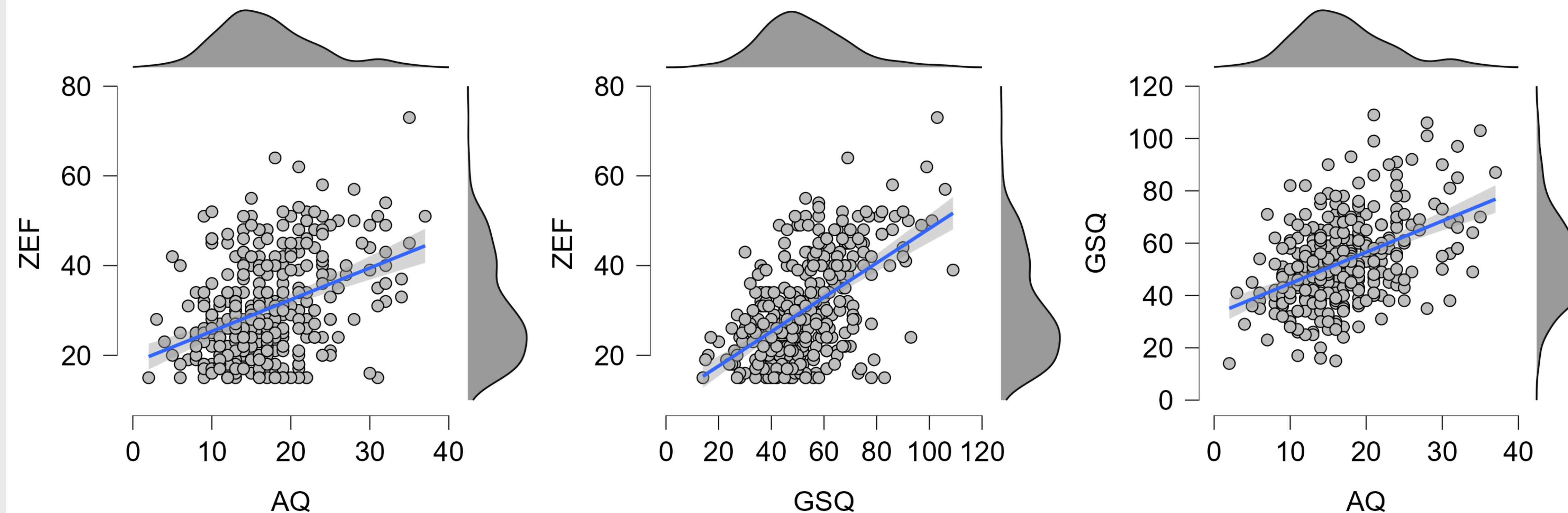
- Zoom Exhaustion & Fatigue (ZEF) scale³
- Autism Spectrum Quotient (AQ)⁴
- Glasgow Sensory Questionnaire (GSQ)⁵

PROCEDURE

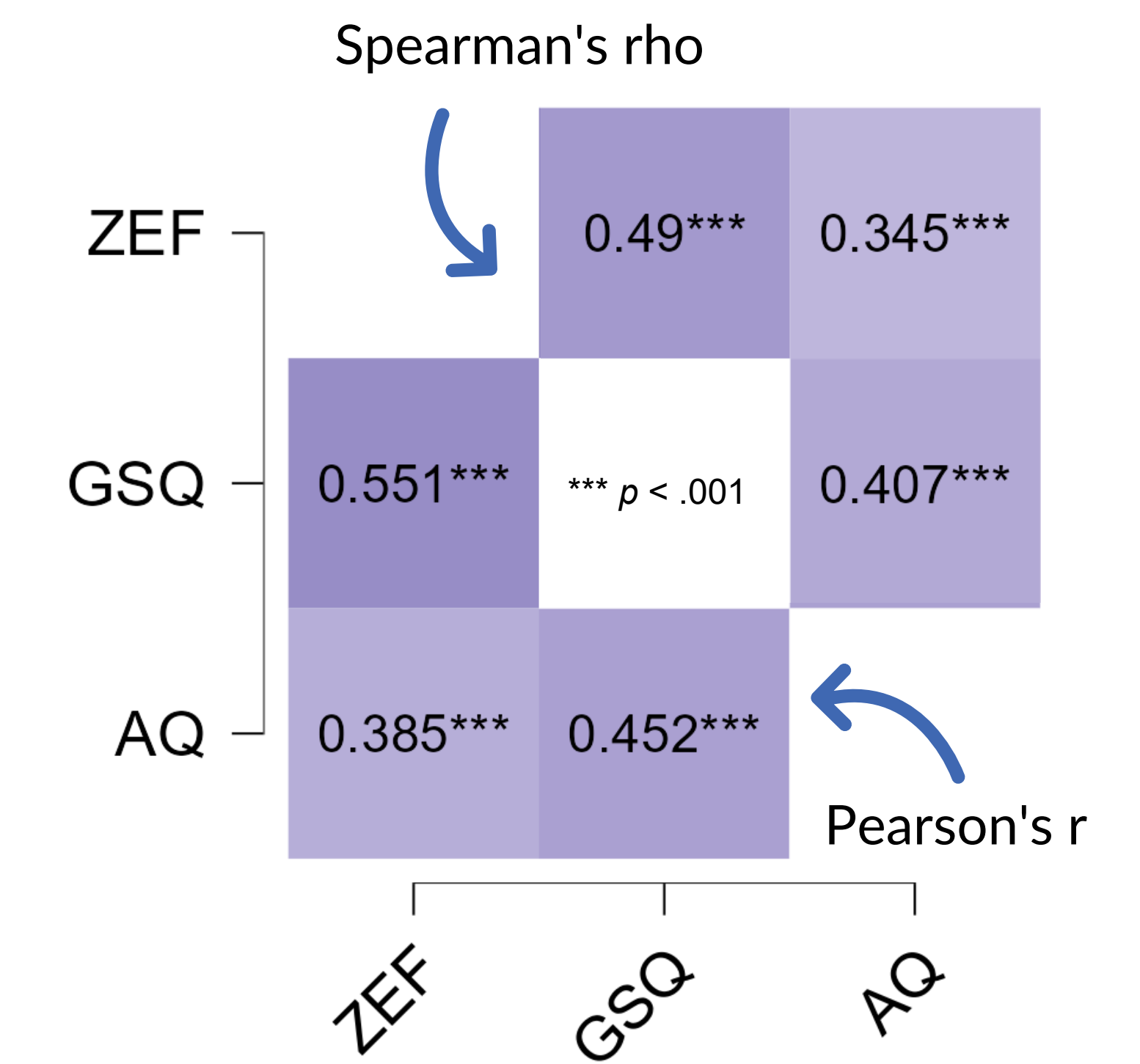
- Participants were recruited at Tilburg University
- Questionnaires (ZEF, AQ, GSQ) were administered online via Qualtrics
- Statistical analyses were performed in JASP (version 0.17.1)

RESULTS

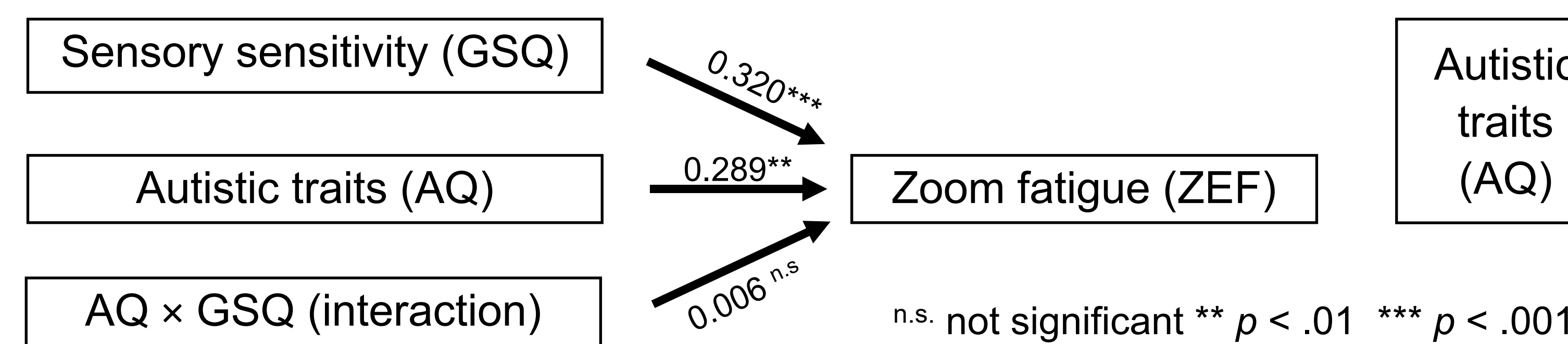
SCATTERPLOTS & DISTRIBUTIONS



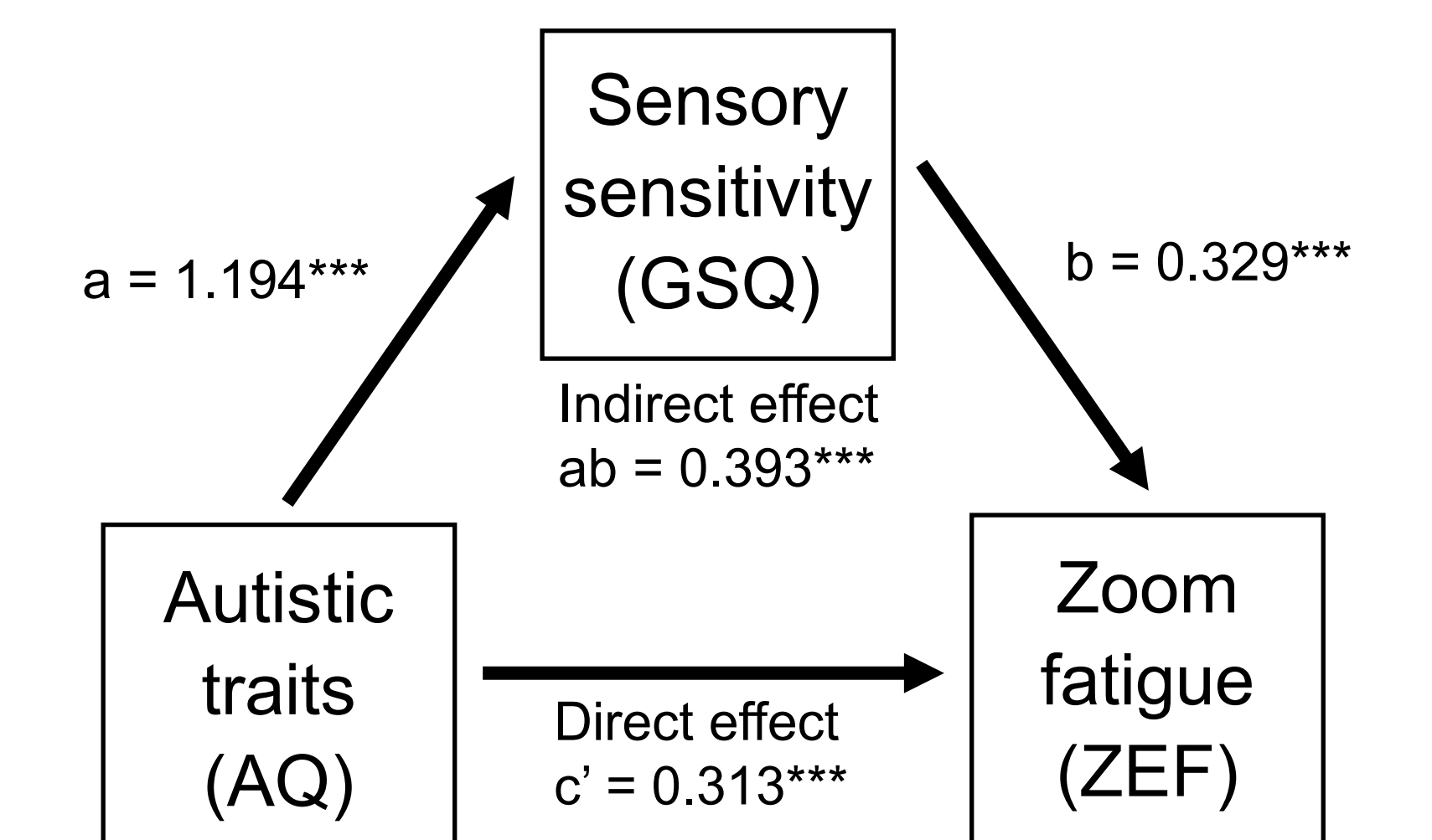
CORRELATIONS



MODERATION ANALYSIS (LINEAR REGRESSION)



MEDIATION ANALYSIS (STRUCTURAL EQUATION MODELLING)



FUTURE DIRECTIONS

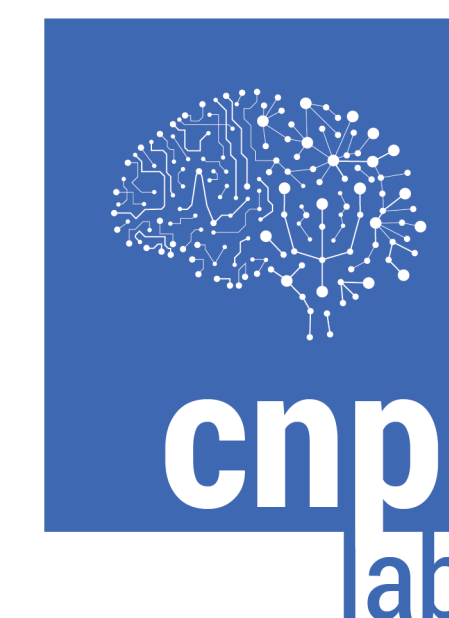
- Expand dataset with data from clinical population.
- Compare behavioral patterns (eye gaze, non-verbal cues, turn-taking) between individuals with and without ASD during VC.



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