

Preference for Harmony: A Preference for Structural Simplicity, Familiarity, or Both?

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Background

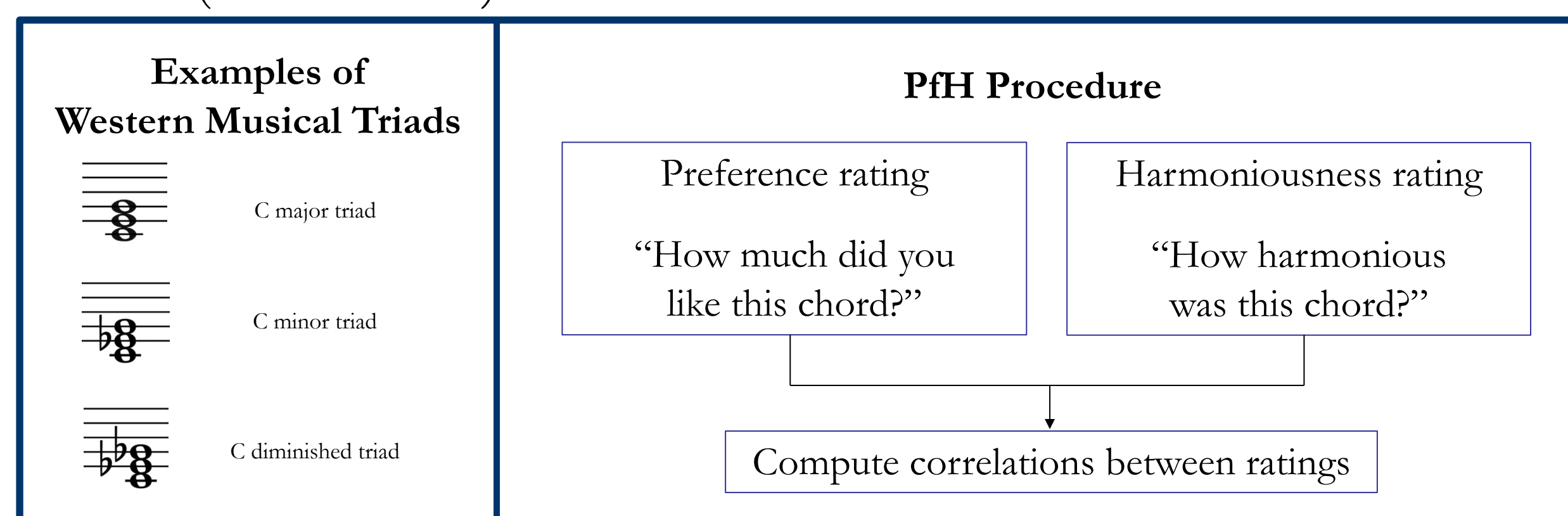
- Palmer and Griscom (2013) found that individuals differ in their preference for harmonious stimuli in both the musical and non-musical domains.
- They suggest that those with higher “preference for harmony” (PfH) have an inherent preference for stimuli that are easier to process due to their structural simplicity.
- However, the familiarity of a stimulus can also enhance its processing ease.

Research Question

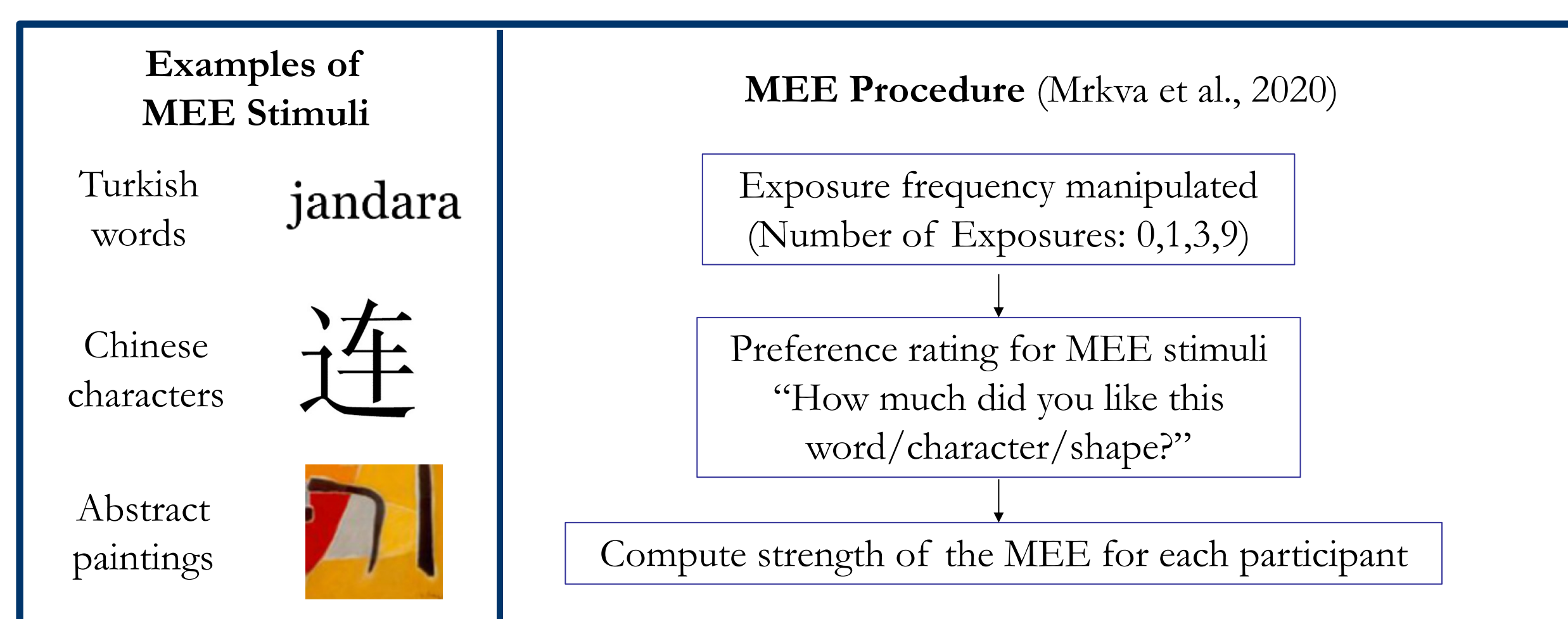
Does preference for harmony only represent a preference for structural simplicity, or could it also (or instead) reflect a preference for familiarity?

Methods

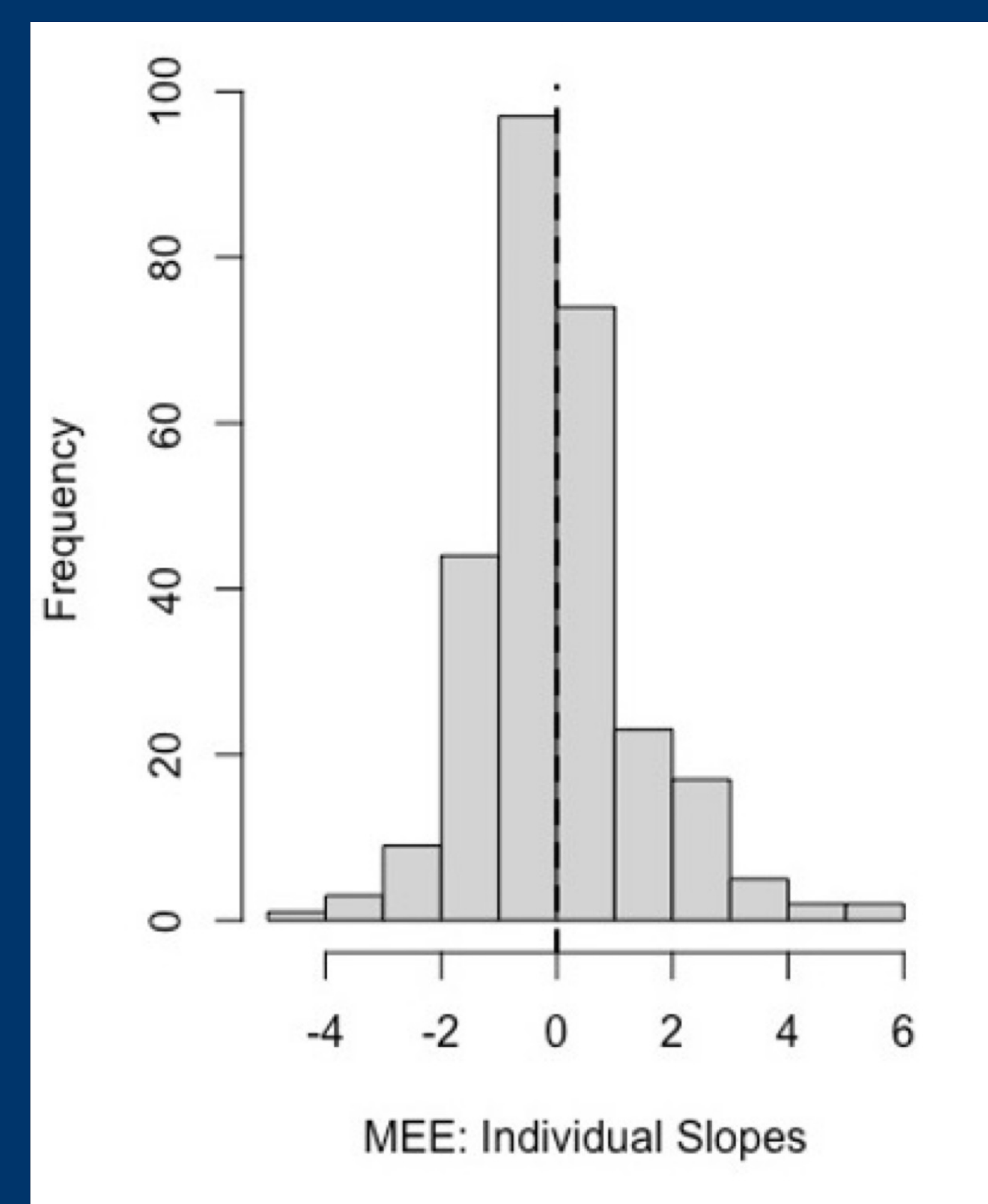
- Musical PfH was assessed by computing the correlation between each participant’s preference and harmoniousness ratings of 44 Western musical triads (3-note chords)



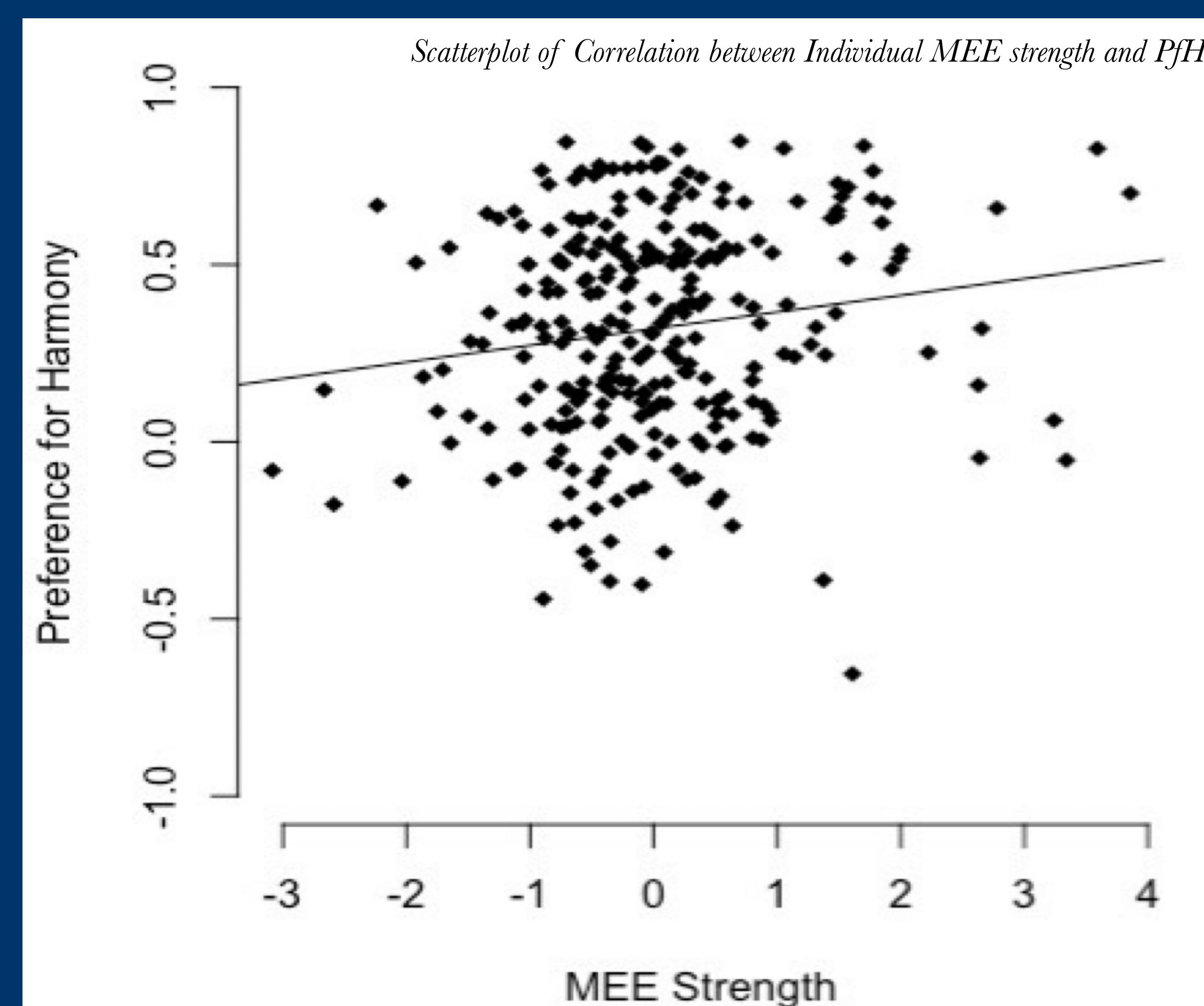
- Preference for familiarity was assessed by measuring the strength of the mere-exposure effect (MEE) shown by each participant, as indicated by their liking for each of a set of visual stimuli based on exposure frequency.



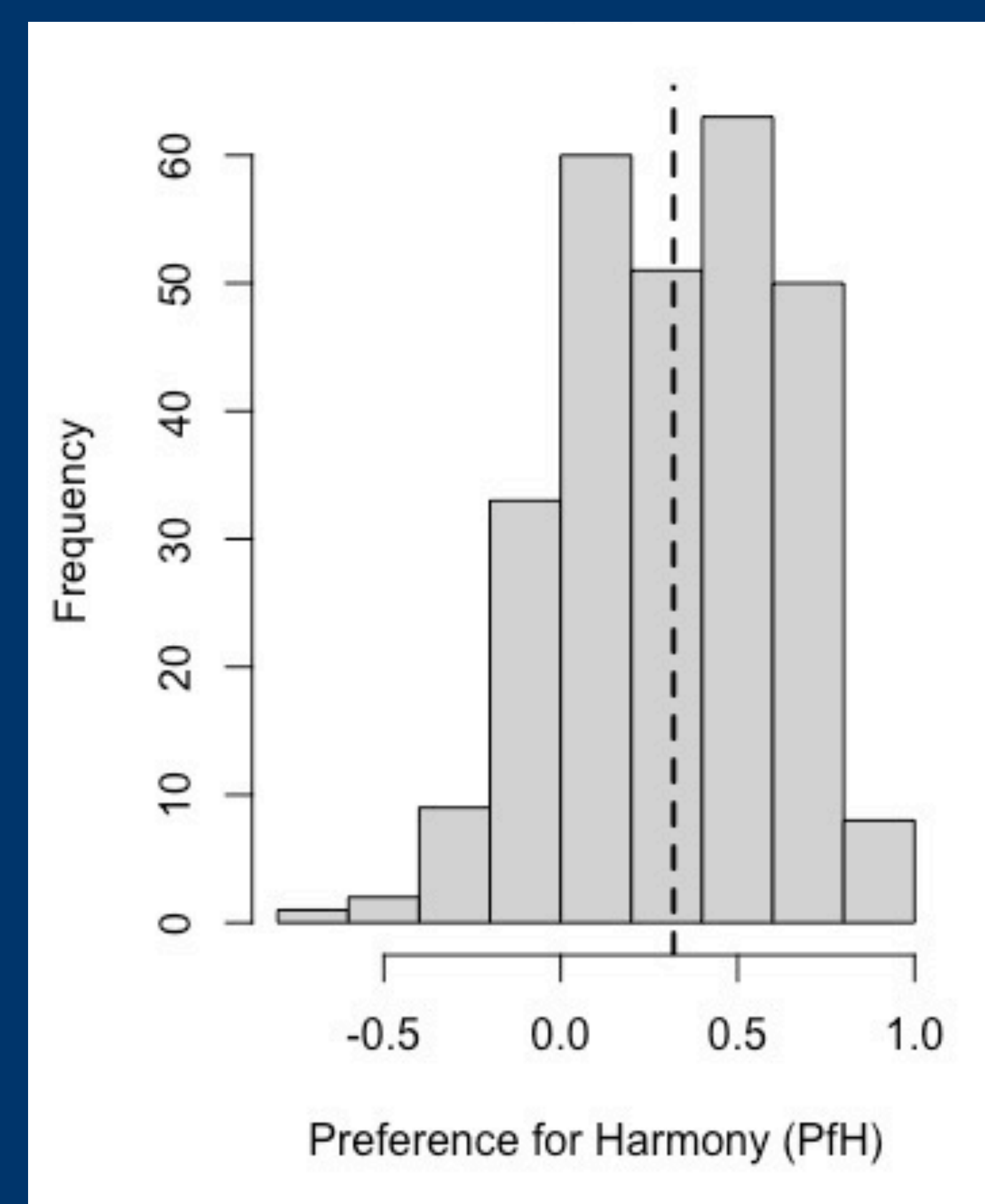
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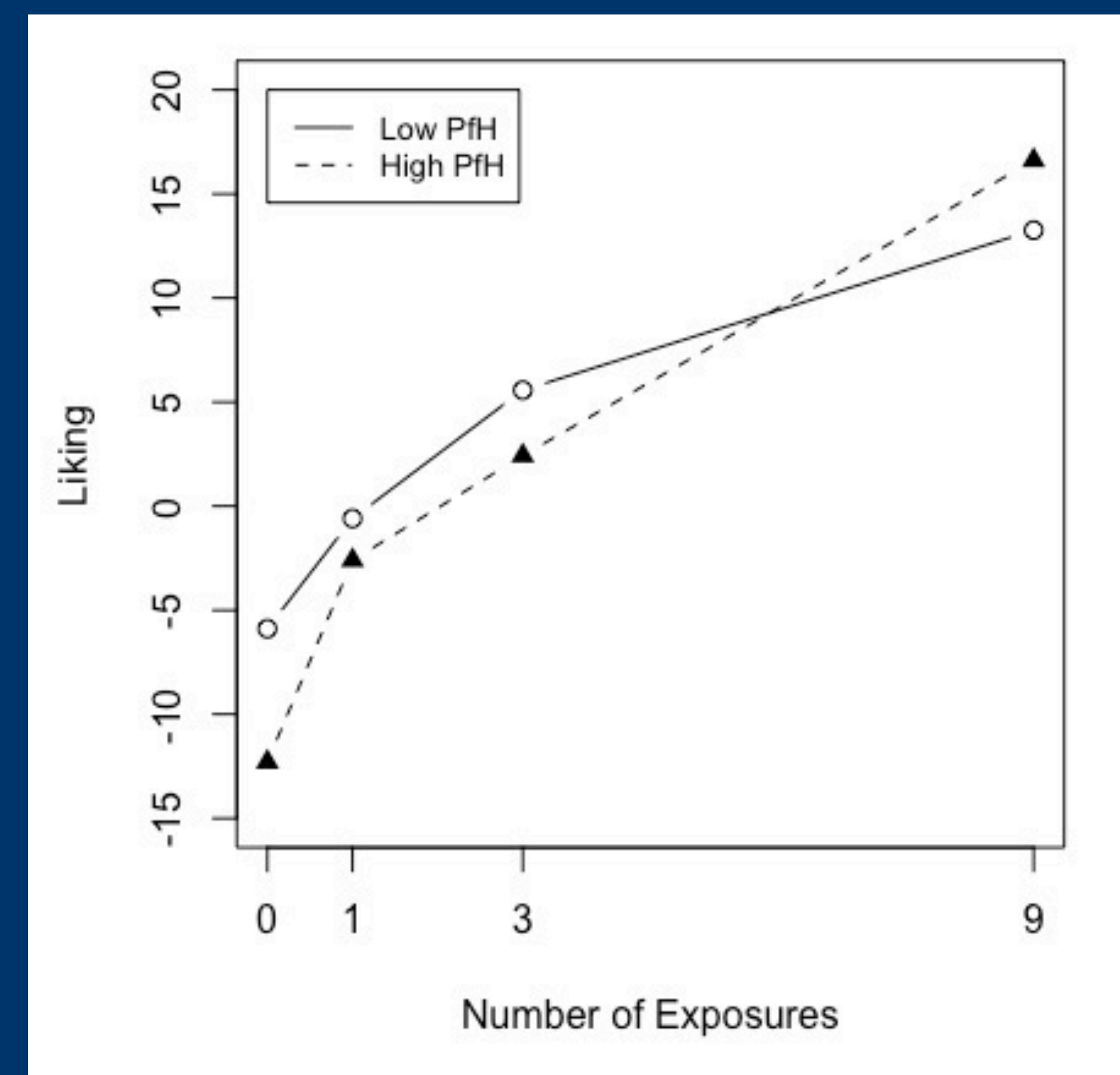
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Results

- There was individual-level variability in the strength and direction of the effect of stimulus exposure frequency on preference.**
A linear mixed-effects model (LMM) was used to analyse the liking ratings for the MEE stimuli, with exposure frequency as a predictor. The scores represent the difference between the general predicted effect of exposure frequency on preference and the effect predicted for a specific individual.
- There was individual-level variability in PfH scores, ranging from a strong preference for harmony to a strong preference for disharmony.**
The mean PfH score is indicated by a dotted vertical line.
- There was a slight, yet reliable positive relationship between PfH and the exposure frequency of a stimulus.**
Solid black line depicts fitted slope from linear regression model. $r(275) = 0.15$, $p < .02$, 95% CI [.04, .27].
- Individuals with higher PfH scores may initially exhibit an aversion to novel stimuli (0 exposures) but gradually develop a preference for stimuli presented several times (9 exposures).**
PfH scores were divided using a median split into 'low' and 'high' categories. This allows for a rough analysis of the relationship between liking scores and stimulus exposure frequency, categorized by PfH levels.

Discussion

- PfH not only represents a preference for structural simplicity, but also at least partly reflects a preference for familiar stimuli.
- PfH likely emerges from both structural simplicity and familiarity because both properties are associated with the ease of encoding by the perceptual system.

Future Directions

- What drives people to prefer stimuli that are easier vs harder to process?
- Individual differences in cognitive ability: individuals with superior processing abilities might find easy-to-process aesthetic stimuli boring due to their processing efficiency.
 - Individual differences in sensitivity to processing ease: individuals with higher PfH might be more aware of and dependent on the feelings of processing ease when making preference judgments.