

Peer Review

Review of: "The Uncanny Valley Phenomenon: Where Is the Categorical Boundary Between Categorization Difficulty and Categorization Failure?"

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This very interesting paper deserves to be published. The manuscript is well-written and brings an important nuance to the research questions surrounding the Uncanny Valley phenomenon. More specifically, the authors sought to distinguish the categorization failure hypothesis from the categorization difficulty hypothesis.

They question the interpretation of Sasaki et al. 's (2025) results, showing that these findings can be explained by means other than the categorization failure hypothesis. The authors' reasoning is well-argued in favor of the categorization difficulty (or “stranger-avoidance”) hypothesis, and the article is very pleasant to read.

If there is a point for improvement, I would draw the authors' attention to the need to clarify the interaction between implicit and explicit categorization systems. Indeed, it seems possible that a difficulty in perceptual grouping at the implicit level could lead to conceptualization as a “strange” category at the explicit level (the strange-avoidance/categorization difficulty hypothesis could then also be explained by the implicit system). De Neys' (2017) article “Bias, Conflict, and Fast Logic: Towards a Hybrid Dual Process Future?” argues that individuals can intuitively detect conflicts between heuristic responses and logical principles, even without conscious deliberation. There could therefore be an intuitive detection of conflicts (e.g., categorization difficulty), without the explicit system necessarily intervening: we could identify perceptual inconsistencies even before being aware of them.

A link with alternative hypotheses of the uncanny valley could also be proposed: for example, the perceptual mismatch hypothesis could have an impact on categorization, making it more difficult. The perceptual mismatch hypothesis postulates that the uncanny valley arises from a conflict between different perceptual expectations (which amounts to a difficulty in categorizing the stimulus as “human” or “non-human”). It would therefore be appropriate to attempt to integrate these different hypotheses into a single field of reflection.

Declarations

Potential competing interests: No potential competing interests to declare.