

The use of AI to create visual stimuli in psychology

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In recent years, technological advancements have led to the development of Artificial Intelligence image generators, expanding creative possibilities beyond traditional approaches (Pise et al., 2024).

In psychological research, text-to-image generation tools are used for various purposes. They have been used to develop a wide range of visual stimuli, including novel and familiar objects useful in perception research (Cooper et al., 2023); AI-generated faces, both bias and unbiased, for studying racial and gender perceptions (AlDahoul et al., 2025); AI-generated faces for use in eyewitness identification tasks (Greenspan & Bergold, 2025); visual artworks for comparison with human-made pieces in aesthetic evaluations (Hees et al., 2025); and emotionally evocative images for emotion research (Zhang et al., 2024), among others. Additionally, they contribute to interactive creative processes, as seen in the AI-assisted art-making tool DeepThink developed by Du (2023) as a new approach to art therapy.

Due to the growing integration of creative AI into psychological research, there is an increasing need to understand the criteria researchers use when implementing AI-generated visual stimuli and assessing their quality and validity. Evaluating the validity of visual stimuli is important to ensure that the images accurately reflect what is being studied and that the results are reliable.

A literature search using keywords such as “AI,” “psychology,” “visual stimuli,” “text-to-image generation” will be conducted to identify, in the papers, the criteria researchers use for selecting among different AI tools, generating visual stimuli through effective prompting, and evaluating the overall quality and validity of the generated images.

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No

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