

Order Matters: Learning semantic information before seeing a face improves face memory

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Abstract

Prior research suggests that learning novel faces with identity-relevant semantic information is beneficial for face encoding, increasing face discriminability on recognition tasks even when tested using a different image (Mattarozzi et al., 2019; Ünal, Akan & Benjamin, 2024). However, no study has yet examined whether the timing of semantic information presentation is important for this effect by comparing conditions where semantic information is presented either before or after seeing the face. Sixty-two young adults learned a series of 36 faces of which 24 were paired with semantic information (12 face-first, 12 semantic-first) and 12 were not (control). We found that participants showed significantly better discriminability (d') for identities learned in the semantic-first condition compared to the face-first condition. These findings suggest that learning identity-relevant semantic information before seeing a face can optimize face memory, likely by increasing the salience of the face and providing a semantic scaffolding to bolster identity encoding.