



Does a 'baba' sound feel spikey or round to you? Crossmodal Correspondence Across the Audio-somatosensory Modalities

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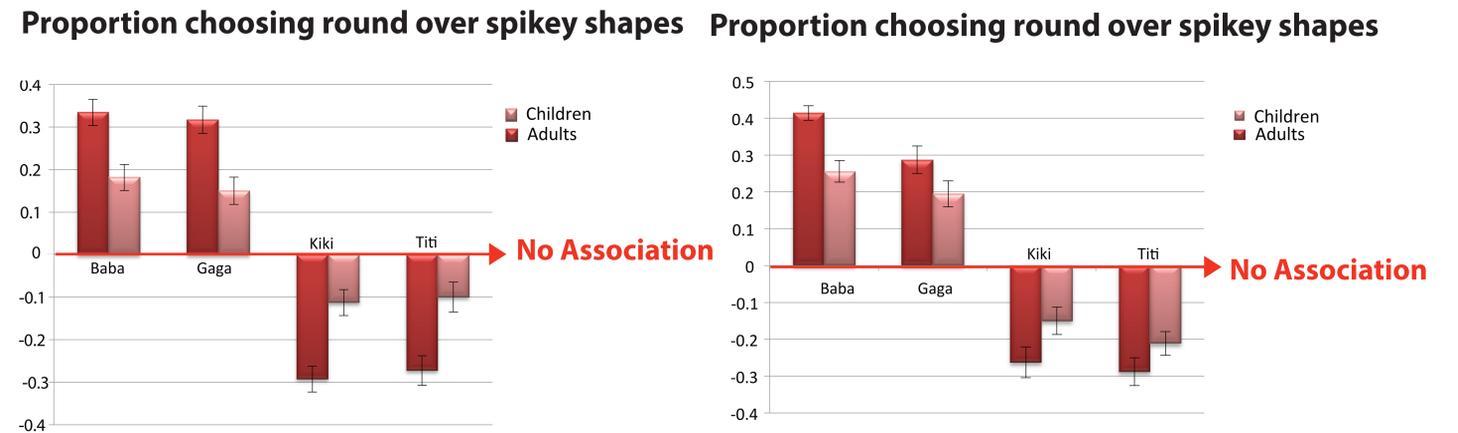
Introduction:

The "bouba-kiki" effect reveals associations between auditory and visual stimuli, where nonsense sounds are consistently associated with certain abstract shapes (round vs. spikey, respectively). Previous research has found consistent sound-shape correspondences within the visual and auditory domains. In our study, we aim to investigate (1) if the "bouba-kiki" effect is replicable across the auditory and somatosensory modalities, and (2) compare the strength of crossmodal associations for the audio-tactile and audio-visual 'bouba-kiki' effect.

We predict that the "bouba-kiki" effect is replicable across the auditory and somatosensory modalities, and that the strength of association for the audio-tactile effect will be similar to that of the audio-visual "bouba-kiki" effect.

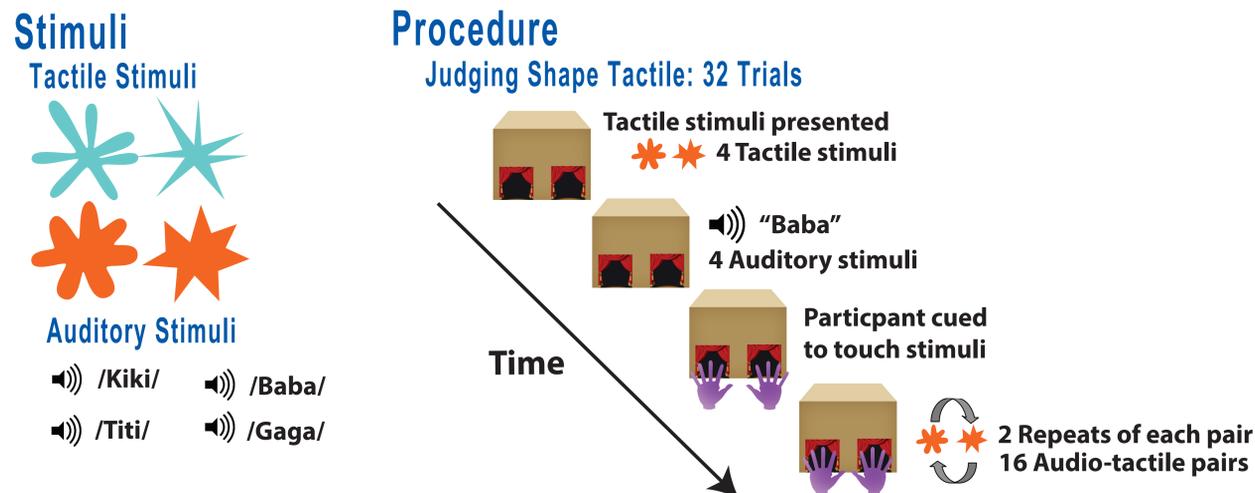
Results:

Is Association Strength Similar for Feeling vs Seeing? Audio-Tactile Audio-Visual



We find similar 'bouba-kiki' effects for audio-tactile and audio-visual stimuli. Both paradigms show a similar association strength.

Methods: What Does "Baba" Feel like?



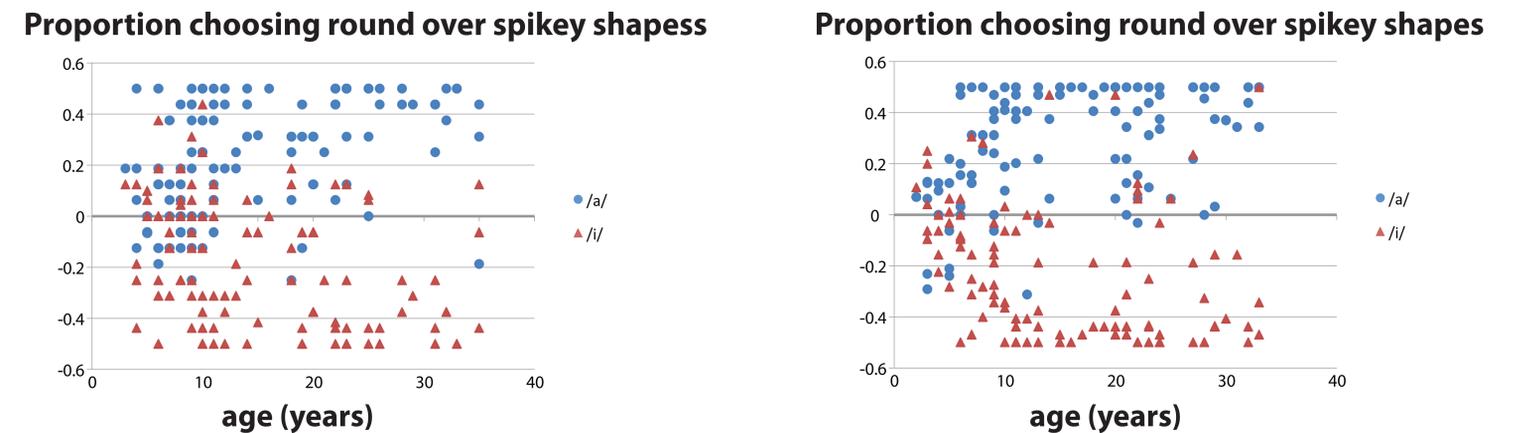
Analysis:

Quantifying Choice for Judge Shape Tactile: We calculated the proportion of trials round shapes were chosen over spikey shapes for a given sound.

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Is the Trend Across Development Similar for Feeling vs Seeing? Audio-Tactile Audio-Visual



Children (5-10 years of age) show a weaker association strength for both audio-tactile and audio-visual associations compared to adults, who show a stronger association strength.

Conclusions:

- 1) The sound-shape correspondence known as the "bouba-kiki" effect is evident in both the audio-visual and audio-tactile sensory modalities.
- 2) The "bouba-kiki" effect shows a similar association strength across the visual and tactile sensory modalities and a similar trend across