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Title

Specificity of Affective Responses in Misophonia Depends on Trigger Identification

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Abstract

Individuals with misophonia, a disorder involving extreme sound sensitivity, report significant anger, disgust, and anxiety in response to select but usually common sounds. While estimates of prevalence within certain populations such as college students have approached 20%, it is currently unknown what percentage of people experience misophonic responses to such "trigger" sounds. Furthermore, there is little understanding of the fundamental processes involved. In this study, we aimed to characterize the distribution of misophonic symptoms in a general population, as well as clarify whether the aversive emotional responses to trigger sounds are partly caused by acoustic salience of the sound itself, or by recognition of the sound. Using multi-talker babble as masking noise to decrease participants' ability to identify sounds, we assessed how identification of common trigger sounds related to subjective emotional responses in 300 adults who participated in an online study. Participants were asked to listen to and identify neutral, unpleasant and trigger sounds embedded in different levels of the masking noise (signal-to-noise ratios: −30, −20, −10, 0, +10 dB), and then to evaluate their subjective judgment of the sounds (pleasantness) and emotional reactions to them (anxiety, anger, and disgust). Using participants' scores on a scale quantifying misophonia sensitivity, we selected the top and bottom 20% scorers from the distribution to form a Most-Misophonic subgroup (N = 66) and Least-Misophonic subgroup (N = 68). Both groups were better at identifying triggers than unpleasant sounds, which themselves were identified better than neutral sounds. Both groups also recognized the aversiveness of the unpleasant and trigger sounds, yet for the Most-Misophonic group, there was

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a greater increase in subjective ratings of negative emotions once the sounds became identifiable, especially for trigger sounds. These results highlight the heightened salience of trigger sounds, but furthermore suggest that learning and higher-order evaluation of sounds play an important role in misophonia.

Source

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