Title
No evidence for attraction to consonance in budgerigars (Melopsittacus undulatus) from a place preference paradigm

Journal
Proceedings of the Annual Meeting of the Cognitive Science Society, 43(43)

ISSN
1069-7977

Authors
Wagner, Bernhard
Bowling, Daniel
Hoeschele, Marisa

Publication Date
2021

Peer reviewed

No evidence for attraction to consonance in budgerigars (Melopsittacus undulatus) from a place preference paradigm

Bernhard Wagner
Acoustic Research Institute - Austrian Academy of Sciences, Vienna, Austria

Daniel Bowling
Stanford university , Stanford, California, United States

Marisa Hoeschele
Acoustics Research Institute, Austrian Academy of Sciences, Vienna, Austria

Abstract

Tone combinations with small integer frequency ratios are perceived as pleasant and are referred to as "consonant". Human consonance preference has been connected to preference for sounds, such as the human voice, that inherently contain consonant intervals via the harmonic series. As such, we might expect other species with harmonic vocalizations to also show attraction to consonance. We tested budgerigars and humans in a place preference test. Subjects could freely spend time with consonant or dissonant versions of a piano melody. Time spent with stimulus types was used as a measure of attraction. Human females spent more time with consonant stimuli but males showed no preference. In budgerigars neither sex showed a preference. This did not change when repeating the experiment with consonant and dissonant versions of budgerigar sounds. The amount of nonlinearity in budgerigar vocalizations can explain these results engendering relevant implications for future cross-species consonance studies.