

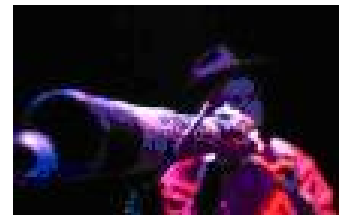


Research Directions

Office of Research Services

Loudness and Mood

Associate Professor Kate Stevens from MARCS Auditory Laboratories, and overseas researchers from the University of Cambridge and University of Toronto have been awarded an ARC Discovery grant to study cross-cultural differences in the effects of changing loudness levels in music.



Traditional Australian musical instrument - didgeridoo

‘Music affects mood arousal through basic parameters such as loudness and tempo, and along with culturally determined components, music makes use of acoustic attributes that trigger responses in ways that may have deep evolutionary roots’ says Associate Professor Stevens. ‘This project investigates responses to increasing loudness and its biological connection with approaching physical objects or “looming”.’

By musicological and acoustic analyses of Western and traditional music, and in perceptual experiments, the team will test the hypothesis that changes in loudness maintain attention, influence perceived proximity of sounds, and trigger adaptive reactions. Researchers will also examine interactions between increases in loudness on other qualities of music, such as pitch and tempo.

Despite decades of research into perception of Western music, there are few studies that investigate traditional Australian music. This project investigates a parameter present in all auditory events, from animal songs and alarms to music and speech: loudness. Results concerning the universality of loudness change and effects on mood and arousal will be reported to academic and local communities. Understanding how people experience loudness has implications for non-musical uses of sound, for example the use of loudness in non-verbal auditory warnings. Identifying effects of loudness on arousal and mood is also relevant to research on therapeutic or harmful effects of music and other sounds.

Project Title: *Music, Arousal, and Mood: The role of loudness and loudness change in cross-cultural music perception*

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