Towards a Perceptually-grounded Theory of Microtonality: issues in sonority, scale construction and auditory perception and cognition

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Abstract

This thesis engages with the topic of microtonal music through a discussion of relevant music theories and compositional practice, alongside the investigation of theoretical perspectives drawn from psychology. Its aim is to advance a theory of microtonal music that is informed by current models of auditory perception and music cognition. In doing so, it treats a range of microtonal approaches and philosophies from duplex subdivision of tempered scales to the generation of intervals in just–intonation–based schemes, including systems derived directly from the structure of the harmonic series. It contains an analytical survey of case studies relating to twentieth–century microtonal approaches, which focuses on the conceptual and perceptual implications of the use of such materials by these early microtonal practitioners, through engagement with their stated theories and compositional practice. Through this process, it begins to advance components of a perceptually and cognitively–informed theory of microtonality, which is then consolidated by a series of theory–based chapters which investigates the phenomenon more singularly from the perspective of current theories within the field of psychology. The theories which are thus advanced are further informed by a component of compositional practice in the research process, which is used as a vehicle to refine and extend them. The result is a comprehensive theory of microtonal music which incorporates contexts drawn from ecological and embodied perspectives on perceptual and cognitive processes.