

Center for Music in the Brain guest talk w.

Dr Marcus T. Pearce

Music Cognition Lab, School of Electronic Engineering & Computer Science, Queen Mary, University of London



Date: Tuesday, December 1st, 2015

Time: 2-4 PM

Place: Meeting room, 5th floor, building 10G,
MIB/AUH, Nørrebrogade 44

The Center for Music in the Brain is honored to host Dr. Marcus Pearce from Queen Mary, University of London in a talk titled

Predictive Processing of Music: Expectation & Aesthetics

Abstract: Eduard Hanslick (1854) identified the importance of unconscious expectations in the aesthetic experience of music. Unexpected musical events introduce a sense of tension and suspense while expected events generate pleasurable feelings of resolution. Some 100 years later, Leonard B. Meyer (1957) suggested that expectations are built upon learned cognitive representations of musical styles instantiated as probability systems in the minds of composers, performers and listeners. Until recently, there has been surprisingly little scientific work to corroborate these hypotheses. I will present a dynamic information-theoretic model of auditory expectation (Pearce, 2005) that learns through musical experience and generates probabilistic predictions about forthcoming events (e.g., the pitch or onset time of the next note), given the current context. In empirical experiments with listeners, ratings of unexpectedness and uncertainty, and electrophysiological responses to expected and unexpected notes, show a close correspondence with the predictions of the model, measured in terms of information content and entropy (Pearce, 2005; Pearce et al., 2010; Omigie et al., 2012, 2013). Furthermore, behavioural and physiological emotional responses to live musical performances have been shown to vary systematically with the probabilistic expectations of the model (Egermann et al., 2013). These empirical results confirm and add computational and psychological detail to the cognitive processes proposed by Hanslick and Meyer.

References can be found here: <http://webprojects.eecs.qmul.ac.uk/marcusp/index.php?page=1>

ALL ARE WELCOME

For more information
about the guest talk,
please contact
Bjørn Petersen:
bjorn@pet.auh.dk