

# **EPC '11**

## **Auckland, April 2011**

**Programme and Abstracts of the 38<sup>th</sup> Australasian  
Experimental Psychology Conference**

**Pullman Hotel, Auckland**

**April 28<sup>th</sup> - 30<sup>th</sup>, 2011**

**Co-organised by the Department of Psychology, University of  
Auckland and the School of Psychology, Victoria University of  
Wellington.**



3.00-3.30

**If you blink, you will like it: Mere exposure to random geometric shapes in an RSVP stream**Jason Lodge<sup>12</sup> & David Cottrell<sup>1</sup>

1. James Cook University
2. Griffith University

The distractor devaluation effect is a negative attitude towards a previously presented stimulus that occurs as a result of ignoring it. This observation is at odds with models of the well-established mere exposure effect – an increase in liking due to previous exposure. In three experiments, participants were presented with random geometric shapes in rapid serial visual presentation (RSVP) streams. Target and distractor shapes differed in terms of global features as feature processing is an important factor in both effects. The hypothesis that disfluency associated with repeated exposure to distractor shapes would lead to a persistent devaluation of the shapes was not supported. The results of these experiments instead suggest that distractor devaluation is the consequence of distractors having a negative value attached to them in order to increase task efficacy. In this respect, research on the distractor devaluation effect contributes little to the understanding of the mere exposure effect.

**READING 3**

Ballroom B

Session Chair: Matthew Finkbeiner

1.30-2.00

**There goes the neighbourhood! Frequency, not neighbourhood density, determines the magnitude of masked form priming effects in visual word recognition**

Hanne M. Watkins, Sue-Ann Natalie Teo, &amp; Meredith McKague

The University of Melbourne

This study investigated how the frequency and neighbourhood density characteristics of target words modulate masked form-priming effects. Participants (N=144) completed a lexical decision task in which targets were preceded by three kinds of masked form-primers; transposed-letter (baech-BEACH), one-letter-different (beich-BEACH), and two-letter-different (beish-BEACH). Form-priming was measured against all-letters-different and identity prime baselines. All form-primers were unambiguous in relation to the target to avoid potential activation of shared neighbours and prime-only neighbours. The presence of higher frequency target neighbours was also controlled. These controls ensured that priming effects reflected target word characteristics. Results showed that target frequency interacted with all three form-priming effects, with larger priming effects obtained for low-frequency words than for high-frequency words. Contrary to previous findings, neighbourhood density did not modulate form-priming effects. These results provide support for a modified version of the lexical tuning hypothesis, in which word frequency plays a critical role in tuning the representations that underlie fluent visual word recognition.

**62. Conceptual metaphors of emotion: assessing the separate role of semantics and prosody**

Hazel K. Godfrey &amp; Gina M. Grimshaw

Victoria University of Wellington

Recent research on embodied cognition points to a role for the perceptuomotor system in conceptual representation. One way that the perceptuomotor system may ground representation is through metaphorical mappings, as described in Conceptual Metaphor Theory (Lakoff & Johnson, 1999). For example, emotional concepts may be mapped onto physical space, as in the GOOD IS UP/BAD IS DOWN conceptual metaphor. The aim of the current research was to elucidate whether the GOOD IS UP metaphor is activated by processing of spoken emotional words. Participants evaluated spoken words that were semantically or prosodically emotional. A visual target detection and identification task was completed following presentation of the spoken word to assess attention to upper and lower space. However, no metaphor congruent shifts in attention were observed which is inconsistent with activation of a GOOD IS UP metaphor. Recent modifications to Grounded Cognition Theory may need to be applied to Conceptual Metaphor Theory.

**63. Patterns of emotion processing and their relationship to frontal asymmetry**

Michael Tooley, Rosie E. Moody, &amp; Gina Grimshaw

Victoria University of Wellington

Dysregulation of emotion is a core factor in depression. Additionally, individuals who show a rightward frontal asymmetry have been shown to be more likely to experience recurrent depression. The current study measured frontal asymmetries and examined emotional orienting, emotional reactivity and emotional regulation to pleasant, neutral and unpleasant pictures using an acoustic startle paradigm. Startle probes were presented at four time points; two during picture presentation (300ms and 3,500-4,500ms) and two post picture offset (1,000ms and 5,000ms). This design made it possible to examine differences in the pattern of emotional processing of those with a known predisposition to depression. Findings are related to current theories of emotional reactivity and regulation in depression.

**64. Presentation procedures in measuring emotion laterality via the auditory modality**

Louise Hansen, David Cottrell, &amp; Marjan Jazbani

James Cook University

For more than three decades cognitive neuroscientists have debated the lateralisation of emotion. Currently there are two theories in contention: the right hemisphere hypothesis and the valence hypothesis. The right hemisphere hypothesis is that all emotional are predominantly processed in the right cerebral hemisphere of the human brain while the valence hypothesis is that positive (or approach-related) and negative (or withdrawal-related) emotions are processing in the left and right cerebral hemispheres respectively. In general listening studies aimed to measure the lateralisation of emotion have employed disparate presentation procedures resulting in inconsistent findings. The current study investigated the affective judgment of simple classes of auditory stimuli (e.g. tonal/atonal melodies) via three presentation procedures: monoaural (i.e. target with no competition), binaural (i.e. target with competing noise), and dichotic (i.e. target with competing

melody). Overall, presentation procedure had a direct influence on observed asymmetry highlighting the need for consistency in listening studies aimed to measure the lateralisation of emotion.

### 65. Expectations in culturally unfamiliar music: Influences of perceptual filter and timbral characteristics

Catherine Stevens<sup>1</sup>, Barbara Tillmann<sup>12</sup>, Peter Dunbar-Hall<sup>3</sup>, Julien Tardieu<sup>14</sup>, & Catherine Best<sup>1</sup>

1. MARCS Auditory Laboratories, University of Western Sydney,
2. Lyon Neuroscience Research Center, Université de Lyon, France
3. Conservatorium of Music, The University of Sydney,
4. Université de Toulouse UTM, Unité de Recherche Interdisciplinaire Octogone EA4156, Toulouse, France

Listeners establish sensitivity to the regularities of their musical environment, but how do those perceptual filters adapt to timbral and harmonic features of an unfamiliar musical culture? We examined Westerners' judgments of coherence and completeness for newly constructed melodies in the Balinese gamelan tradition. We hypothesized that novice listeners' judgments are sensitive to out-of-scale changes, but not in-scale changes, and this interacts with unfamiliar timbre such as "sister" or beating tones. The data of 30 listeners showed: 1) out-of-scale endings were judged less complete than original gong and in-scale endings; 2) for "sister" melodies, in-scale endings were judged as less complete than original endings. Melodies using the original scale tones were judged more coherent than melodies containing single or multiple tone replacements; single melodies were judged more coherent than corresponding sister melodies. Acquired perceptual filters and timbres influence perception of melodies of other cultural systems based on unfamiliar tunings/scale systems.

### 66. The hemispheric specialization in the affective appraisal of music

David Cottrell<sup>1</sup> & Helena Pacitti<sup>2</sup>

1. James Cook University
2. University of New South Wales

Humans are not symmetrical. Asymmetries are observed in differences in everything from the size of a person's feet through to hand preferences for motor tasks. There are also well known neurological asymmetries, for example language processing occurs predominantly in the left-hemisphere. This study investigated the influence of language and hemispheric asymmetries in appraising music. Monolingual English speakers ( $N= 40$ ) were presented music clips, with native, foreign language or no lyrics, to the left or right ear and asked to indicate how pleasant they found the clip. Music was appraised as more unpleasant when presented to the left ear and instrumental music was more pleasant than music with lyrics. Response times were faster for music with native lyrics compared to instrumentals. These results indicate neurological asymmetries for affective appraisals and underscore the influence of language in these appraisals. The findings are interpreted as consistent with the Valence Model of emotional lateralisation.