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**THE EMOTIONAL CONTENT OF MATERIAL AND SOURCE MONITORING FUNCTION IN SUBJECTS PREDISPOSED TOWARDS HALLUCINATIONS**

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**DO WE EXPERIENCE EMOTIONS WHILE LISTENING TO MUSIC?**

*Stéphanie Khalfa, Isabelle Peretz, Jean-Pierre Blondin, Manon Robert, Marie-Claude Pigeon, Mathieu Roy, Valérie Simard*; Université de Montréal, Quebec – Music is known to be a powerful means to elicit emotions. What remains unclear is whether music induces emotional experience or simply expresses emotions that listeners are able to recognize. The goal of the present study was to distinguish between these two hypotheses. To do so, we tested rare individuals, non-clinical physical anhedonics, who are known to have a specific failure in experiencing pleasure, but no musical deficit or psychiatric disorder. If musical emotions are experienced, anhedonics and normals are expected, 1) to differ in their emotional affect, as measured by their skin conductance response (SCR) while listening to pleasant (consonant) musical excerpts; and 2) to demonstrate comparable SCRs to unpleasant (dissonant) music, since both anhedonics and normals experience unpleasantness. SCRs to pleasant and unpleasant musical clips were recorded in the two groups of subjects. The results show greater SCRs to pleasant excerpts in controls than in anhedonics, whereas no significant difference was observed during unpleasant excerpts. Thus, the results lend support to the hypothesis that music elicits emotional affect, and does not merely express it.

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**PSYCHOPHYSIOLOGY OF EMOTION, LANGUAGE AND COGNITION IN HEALTHY SUBJECTS**

*Jennifer Burbridge, Deanna Barch*; Washington University, Saint Louis – This study was conducted to examine the basic mechanisms of affective reactivity. Thirty-five medically and psychologically healthy individuals were given an interview designed to elicit speech samples in response to positive and negative valenced questions. Interview questions were based on the Circumplex model of emotion and were balanced in terms of valence (pleasant/unpleasant) and arousal (high/low). Physiological measures of autonomic nervous system activation (heart rate, skin conductance) were col-

lected during the interview and during an independent task of selective attention (emotional Stroop). Affective reactivity was measured by examining the frequency of language errors using the Communication Disturbances Index (Docherty et al., 1996) and by examining the pattern of physiological arousal. Results indicate that negative topics elicited more language errors, higher average heart rate, and greater skin conductance than either neutral topics or positive topics. Evidence for moderating influences (i.e. personality, salivary cortisol levels, mood, perceived stress, and self-esteem) on the relationship between affective reactivity and language disturbance was not found. Results of this study are particularly relevant to improving our understanding of the underlying mechanisms of affective reactivity in patients with schizophrenia.

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**THE INFLUENCE OF POSITIVE AFFECT ON ANTERIOR CINGULATE BASED TASK PERFORMANCE**

*Bernard Chang<sup>1</sup>, Alice Isen<sup>2</sup>*; <sup>1</sup>Harvard University, <sup>2</sup>Cornell University – Recent work has proposed that the processing of positive affect may involve the anterior cingulate (Ashby, Isen & Turken, 1999). This study examined the influence of positive affect on performance on a task associated with anterior cingulate processing. Thirty participants were given a positive affect induction followed by three neuropsychological tasks. Participants completed a task associated with anterior cingulate processing (Graphesthesia) (Smania & Aglioti, 1995) as well as two neuropsychological tasks not associated with anterior cingulate processing (Rey-Osterrieth Figures task and two-point discrimination task). A matched control group of thirty participants completed the same neuropsychological tasks without the mood induction. Data analysis revealed that participants in the positive affect condition performed significantly better on the Graphesthesia task compared to controls, ( $t=2.21$ ,  $p<.03$ ). Furthermore, the two groups did not differ on either the Rey Osterrieth Figures task or two-point discrimination task, arguing against some generalized effect of positive affect on cortical processing. The ability of positive affect to selectively impact an anterior cingulate task confers supporting evidence for the role of the anterior cingulate in positive affect processing. This study also demonstrates the impact of positive affect on sensory processing. Ashby, F.G., Isen, A.M., & Turken, A.U. (1999). A neuropsychological theory of positive affect and its influence on cognition. *Psychological Review*, 106(3), 529-550. Smania, N. & Aglioti, S. (1995). "Sensory and spatial components of somesthetic deficits following right brain damage." *Neurology*, 45(9), 1725-1730.

A25

**ARE SIZE DISTORTION EFFECTS IN HEMISPATIAL NEGLECT MEDIATED BY HEMIANOPIA?**

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