Abstracts/Personality and Individual Differences 60 (2014) S24-S47

training took place under strict supervision in the laboratory. The general pattern of results shows that VIS training is related with increments in intelligent performance. This finding is consistent with previous evidence showing the relevance of these visuospatial processing components with respect to changes in intelligence as measured by standardized tests.

http://dx.doi.org/10.1016/j.paid.2013.07.139

## What is past is prologue: Pre-natal testosterone and parental bonding predicts adult attachment styles

A. Blanchard, M. Lyons, E. Nelson *Liverpool Hope University, UK* 

Research consistently evidences deleterious consequences of poor parenting in the development of dysfunctional and antisocial behaviours in children (Jaffee et al., 2005). For example, foetal development is affected by the psychological and physical health of the mother. Indeed, maternal smoking increases in utero testosterone (Rizwan et al., 2007), which is associated with aggression (Bailey & Hurd, 2005), risk-taking (Stenstrom et al., 2010) and dominant (Millet, 2011) behaviours. However, interactions such as these may offer survival advantage to offspring within hostile environments (Belsky, Steinberg & Draper, 1991). We investigated relationships between prenatal testosterone (2D:4D ratio), perception of quality of parental bonding and adult attachment style. As expected, low maternal warmth and high levels of prenatal testosterone predicted anxious attachment, while the addition of maternal over-controlling to this model predicted avoidant attachment. This evidences how changes in hormonal level might equip an unborn child to survive more successfully within a prospective adversarial environment.

http://dx.doi.org/10.1016/j.paid.2013.07.140

## Women with substance abuse problems exposed to men's violence – A public mental health challenge

C. Scheffel Birath, U. Beijer, V. DeMarinis, B. af Klinteberg Stockholm Centre for Dependency Disorders, Sweden

*Objective:* To explore self-rated physical and psychological health in women with substance misuse problems, subjected to male violence.

Methods: Examination of the health situation in terms of PTSD symptoms (IES-R), personality (SSP), and physical and psychological problems (ASI) for 79 Swedish substance dependent women, 35 women with housing (WwH) and 44 homeless women (HW), 91% had been exposed to male violence (WwH 29; HW 43).

Results: The WwH had physical health problems but compared to the HW, significantly less frequent. Both groups were suffering from self-reported psychological problems, in variables measuring stress susceptibility and embitterment, where both WwH and HW had scores markedly above norm mean scores. The HW had overall a poorer health profile compared to the WwH.

Conclusion: We suggest underlying factors for physical and psychological health/ill-health, such as experiences of violence, continuously to be addressed in the treatment of women with substance abuse problems.

http://dx.doi.org/10.1016/j.paid.2013.07.141