**The effects of anxiety and situation-specific context on perceptual-motor skill: A multi-level investigation**

*Oliver R. Runswick, André Roca, A. Mark Williams & Jamie S. North*

When performing under anxiety, a decrement in performance is often observed. Nieuwenhuys and Oudejans (2012) reported three operational levels at which anxiety can influence goal-direction actions, namely, *attentional*, *interpretational*, and *behavioral*. In this model, which is grounded in Attentional Control Theory (ACT; Eysenck, Derakshan, Santos, & Calvo, 2007), they suggest that performance under anxiety is affected by the limited capacity of the working memory. However, most researchers that have tested ACT have employed protocols or secondary tasks that are not representative of performance environments and limited attention has been paid to how situation-specific context affects cognitive load and perceptual-motor performance. We examined how anxiety and situation-specific contextual information affected the processes underpinning perceptual-motor performance at three different levels (attentional, interpretational, and behavioural) in an *in-situ* setting. Twelve skilled cricket batsmen played against a skilled spin bowler under four different conditions, manipulated to induce low- and high-levels of anxiety and low- and high-levels of situation-specific context. Performance was judged on the quality of bat-ball contact (Muller & Abernethy, 2008). Eye-movements, verbal reports, and kinematic data were recorded as process measures. High anxiety decreased the number of good bat-ball contacts, while high context increased the number of times no contact was made with ball (all p’s<0.05). There were changes in visual search behaviors under high anxiety conditions, with significantly more fixations of shorter duration to more locations (all p’s<0.05). The effects of anxiety appear to be isolated at the perceptual level with cognitive and behavioural measures unaffected. Findings provide support for ACT by showing a decrease in the efficiency of perceptual mechanisms, suggesting that increasing load on the working memory using situation –specific context may affect performance in a different way to artificial and non-representative secondary tasks.