

# Experiential knowledge of elite Rugby Union players on key performance constraints in place kicking

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There has been a growing tendency in sport science research to examine the relationship between empirical knowledge developed in scientific experiments and theoretical frameworks and the experiential knowledge of elite performers and practitioners (Jones, Bezodis, & Thompson, 2009; Greenwood, Davids, & Renshaw, 2014; Phillips, Davids, Renshaw, & Portus, 2014). In this study, we investigated the experiential knowledge of elite Rugby Union place kickers to access their understanding of how to satisfy interacting constraints of competitive performance and practice environments. Place kicks in Rugby Union offer opportunities to score points outside the spatiotemporal dynamics of open play, but are typically performed under varying task and contextual constraints within a performance environment. Success percentage of place kicks can fluctuate under specific task and contextual constraints, as shown in a recent analysis of the 2015 Rugby World Cup (Pocock, Bezodis, Davids, & North, under review). For example, success percentage can drop sharply at critical thresholds of distance and angle to the goalposts and can vary depending on time elapsed, score margin and previous kick success. Interestingly, place kicks in the 10 minutes before half time were 8% less successful than the tournament average, and place kickers who had missed their previous kick were 7% less successful than place kickers who had scored their previous kick. It has therefore been speculated that emotions induced during competition can interact with perceptions and action to influence the emergent behaviours of place kickers. To develop greater understanding of how fluctuations in performance data may emerge, we interviewed professional Rugby Union place kickers and sought to explore their experiences of satisfying key interacting constraints on performance. Specifically, we aimed to investigate the key constraints that place kickers perceive to influence their emotions and perceptions of task difficulty. A secondary aim of the interviews was to identify specific details of how place kicking situations are currently practised, and why they are structured in this way. We present here the experiential knowledge of place kickers which includes their perceptions of the key constraints in performance environments and how they currently prepare for place kicks. Our findings highlighted how performance constraints can influence emotions, cognitions and perceptions during place kicking performance and the data indicated how the key constraints identified in this study, combined with the findings of previous quantitative analyses, could be represented in training environments. Initial interviews revealed that place kicking is predominantly practised individually and in isolation from game-based scenarios in training, without any form of pressure or expectation. Examples of pressure that place kickers identified in interviews included expectations of team-mates, performing in front of large crowds and closely-matched scores. This presentation will conclude by discussing how an integration of empirical and experiential knowledge can enrich understanding of sport performance and provide recommendations for coaches when designing practice environments which simulate relevant performance constraints to enhance the adaptive skills of elite and developing athletes in sport.

Keywords: Constraints, Emotions, Interviews, Practice Environments.

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