

# **The role of cognition in perceptual expertise: From symbolic mediation to dynamic coupling**

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**Abstract:** Traditionally, "cognitive" approaches to sport expertise have been associated to symbolic, knowledge-based paradigms where mental representations mediate the relationship between perceptual inputs and behavioral (e.g., motor) outputs. The goal of this paper is to discuss the status of cognition in the context of an alternate framework where cognitive processes are seen as a dynamic constraint rather than as a necessary and intermediate step of interpretation or stimulus enrichment. In this view, it is proposed to envisage cognition as a factor that weighs on the state of each informational system (in an **ecological functionality model**) rather than as a fixed structure in a serial and mostly deterministic sequence of processing (i.e., in a **causal functionality model**). Empirical support for such a proposal will be provided in the domain of visual scene perception where visual processes are attuned to specific environmental events and perceptually-grounded differentiation of the events occurs as a function of cognitive demands.