Abstract

In this theoretical and methodological review of decision making in tennis, we describe some of the explanatory theories of the decisional process by using two approaches: cognitive psychology and ecological psychology. Within the former approach, based on models of information processing, we focus on the importance of visual and perceptual behaviour as mediators of anticipation and decision-making skills in tennis, as well as related concepts such as attention and visual acuity. Subsequently, we explain other cognitive theories based on mental representations and the development of different types of knowledge and memory as a central and decisive component in decision making. The latter approach describes decision making on the basis of ecological psychology, using a decision making approach to the ecological dynamics, heightening the importance of the setting and constraints and understanding tennis as a non-linear, dynamic and self-organized system. We discuss various methodological approaches for evaluating decisions in tennis, regardless of the framework that sustains them. We present different ways of evaluating the decision-making process by analysing verbal protocols and questionnaires, observational analysis, kinematic variables analysis and perceptive analysis. Finally, we conclude by presenting the need to overcome several limitations and study decision making in a holistic manner in which decision making is linked directly to game action.

Keywords

Decision making, tennis, cognitive psychology, ecological dynamics.