

Crafting Sport Skill: An Ecological Dynamics Perspective

Dr. Duarte Araújo
daraujo@fmh.ulisboa.pt

ABSTRACT

Action is not simply the displacement of pieces of anatomy in time and space. Action is an intentional relationship the person establishes with particular circumstances. When learning a skill, actions develop into more sophisticated actions. This is the case for common actions such as walking, as well as for complex actions such those in sport, e.g., Artistic Gymnastics. An important aspect for skill learning is that it implies that actions are future-oriented, and thus, learning is the development of prospective control of action. Prospective control, contrary to predictive control, implies the monitoring of environmental information that indicates how an action can be regulated over time to achieve its goal. It is an evolving relationship with the environment, not an estimation from the mind. A theory of skill learning needs to understand how action evolves from the perception of affordances (i.e., possibilities for action offered by the environment) to their actualization in the unique circumstances for performance. This process implies moving from possibilities to potentiality to actuality. Performance implies the unique accommodation of circumstantial constraints, whether skill implies the potentiality to performance, i.e., the conditions that must hold for successful performance to occur. In this talk we present an ecological dynamic theoretical rationale for understanding and promoting skill learning using sport skill as task vehicles.

KEYWORDS:

Skill Learning, Predictive Control, Action and Intentional Relationship