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Enhancing the control of force in putting by video game training.

Fery YA, Ponserre S.

Rene Descartes University, Cognition et Motricite, Paris, France.
fery@staps.univ-paris5.fr

Even if golf video games provide no proprioceptive afferences on actual putting movement, they may give sufficient substitutive visual cues to enhance force control in this skill. It was hypothesized that this usefulness requires, however, two conditions: the video game must provide reliable demonstrations of actual putts, and the user must want to use the game to make progress in actual putting. Accordingly, a video game was selected on the basis of its fidelity to the real-world game. It allowed two different methods of adjusting the virtual player's putting force in order to hole a putt: an analogue method that consisted of focusing on the virtual player's movement and a symbolic method that consisted of focusing on the movement of a gauge on a scale representing the virtual player's putting force. The participants had to use one of these methods with either the intention of making progress in actual putting or in a second condition to simply enjoy the game. Results showed a positive transfer of video playing to actual putting skill for the learning group and also, to a lesser degree, for the enjoyment group; but only when they used the symbolic method. Results are discussed in the context of how vision may convey force cues in sports video games.