Adding Movement to "Dry Run" Mental Imagery Enhances Performance

Feb. 20, 2013 — Adding movement to mental rehearsal can improve performance finds a study in BioMed Central's open access journal *Behavioral and Brain Functions*. For high jumpers the study shows that dynamic imagery improves the number of successful attempts and the technical performance of jumps.

The technique of mental rehearsal is used to consolidate performance in many disciplines including music and sport. Motor imagery and physical practice use overlapping neural networks in the brain and the two together can improve performance as well as promoting recovery from injury. Researchers from the Centre de Recherche et d'Innovation sur le Sport found that adding simple movements to mental rehearsal could further improve performance by a third.

When they looked at the rates of 'hit' or 'miss' for high jumpers taught to use either internal visual imagery or external visual imagery (such as mimicking the arm movements during the jump), the researchers found that while mental rehearsal improved performance by 35%, mental rehearsal plus "dry run" movements increased performance by 45%. Dynamic imagery scored the highest for all measured aspects of the jump including approach, curve, impulsion, and bar clearance. It also shortened the number of jumps required.

Prof Aymeric Guillot, who led the study, said, "Our study on high jumpers suggests that dynamic imagery may provide a training edge to professional and amateur athletes. This technique may also be of use to people in other disciplines where 'dry run' rehearsals are routinely used."

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