

The Effects of Repeated Finger Flexion Movements on Self-Reported Approach Motivation are Inconsistent and Weak



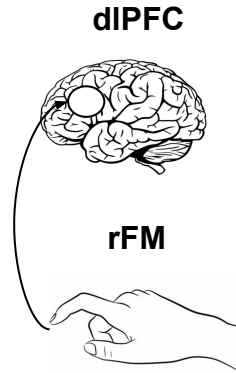
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BACKGROUND

The approach-appetitive motivation system regulates behavior to attain rewards and pursue goals. Higher levels of approach motivation are associated with higher levels of well-being.

Theories of embodiment claim that motor movements can be used to activate this system.



PURPOSE

The purpose of the current research was to provide both a direct and conceptual replication of prior work testing the effect of repeated flexion movements on approach motivation and positive/negative affect.

RESULTS

Study 1 found a statistically significant effect of rFM on positive affect ($p = .006$), but not on approach motivation or persistence on a difficult anagram task.

Study 2 found a statistically significant effect of rFM on approach motivation ($p = .035$), but not on positive affect or persistence on a difficult anagram task.

METHOD

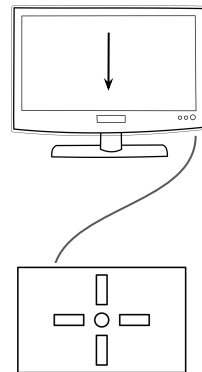
Study 1: Direct Replication $N = 216$
 Study 2: Conceptual Replication $N = 246$

Repeated Flexion Movement Task (rFM)

- rFM condition: 300 trials, 90% flexion
- active control: 300 trials, 50% flexion

Measurements

- Behavioral Activation/Inhibition - BAS/BIS
- Positive/Negative Affect - PANAS
- Anagram Task (2 solvable, 3 unsolvable)



Outcome	Original Study (Haefel, 2011)	Direct Replication	Conceptual Replication
BAS Total			✓
Drive	✓		
Fun			
Reward			
Positive Affect		✓	
Negative Affect			
Time on Lab Task	✓		

DISCUSSION

All three studies found a significant result in the expected direction. However, no significant findings were for the same variable and when present, the effect sizes were small.

Strengths included the use of two well-powered studies that included both direct and conceptual replication attempts.

Positive findings in previous literature are likely due to change findings and selective reporting, which leads to a biased and non-replicable research base.

Repeated finger flexion movements are not recommended for use as a clinical tool to increase approach motivation.