



Shaken, not Stirred:

No impact of an exposure to a vibroshaper on free recall performance

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A vibroshaper is a training device that promises weight loss and muscle formation. The impact on cognitive performance has not been addressed although it is known that whole-body vibrations have detrimental effects on short-term memory (Sherwood & Griffin, 1990). We investigated the impact of an exposure to a vibroshaper on free recall performance. We also tested the transfer-appropriate processing (TAP) hypothesis (Morris et al., 1977). We expected better memory performance for the congruent conditions and lower memory performance for the shaken conditions as vibrations might disrupt cognitive mechanisms.

Procedure

Sample:
57 women
23 men
($M = 22.50$,
 $SD = 3.35$)

incongruent
condition



Conditions

Study phase

Test phase



congruent



incongruent

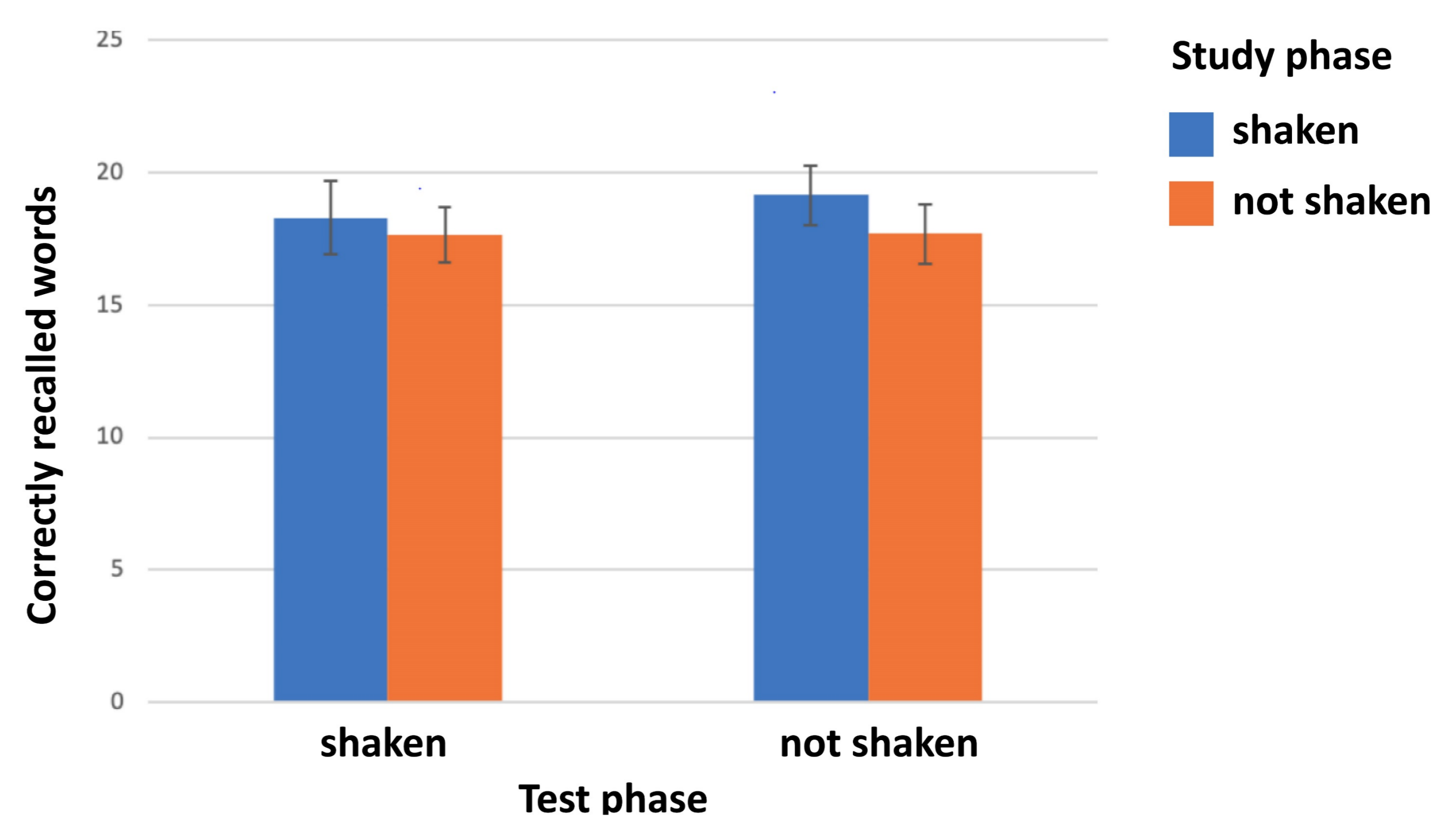


congruent



incongruent

Results



Main effect shaken study phase:
 $F(78) < 1$, $p = 0.378$, $d = 0.201$

Conclusion

- ❖ The vibroshaper showed no effect at all ($d < 0.201$).
- ❖ A short whole-body vibration does not affect memory.
- ❖ We can not rule out that a longer exposure may affect memory and also reveal TAP effects.

Sherwood, N., & Griffin, M.J. (1990). Effects of whole-body vibration on short-term memory. *Aviation, Space and Environmental Medicine*, 61, 1092-1097.

Morris, C.D., Bransford, J.D., & Franks, J.J. (1977). Levels of processing versus transfer appropriate processing. *Journal of Verbal Learning and Verbal Behavior*, 16, 519-533.