

Study suggests clenching right hand may help form memories, left may help recall words

April 24 2013



The front and back of a human right hand. Credit: Wikipedia.

Clenching your right hand may help form a stronger memory of an event or action, and clenching your left may help you recollect the memory later, according to research published April 24 in the open access journal *PLOS ONE* by Ruth Propper and colleagues from Montclair State University.

Participants in the research study were split into groups and asked to first memorize, and later recall words from a list of 72 words. There were 4 groups who clenched their hands; One group clenched their right fist for about 90 seconds immediately prior to memorizing the list and then did the same immediately prior to recollecting the words. Another group clenched their left hand prior to both memorizing and recollecting. Two other groups clenched one hand prior to memorizing (either the left or right hand) and the opposite hand prior to recollecting. A control group did not clench their fists at any point.

The group that clenched their right fist when memorizing the list and then clenched the left when recollecting the words performed better than all the other hand clenching groups. This group also did better than the group that did not clench their fists at all, though this difference was not statistically 'significant'.

"The findings suggest that some simple body movements - by temporarily changing the way the brain functions- can improve memory. Future research will examine whether hand clenching can also improve other forms of cognition, for example verbal or spatial abilities," says Ruth Propper, lead scientist on the study.

The authors clarify that further work is needed to test whether their results with word lists also extend to memories of [visual stimuli](#) like remembering a face, or [spatial tasks](#), such as remembering where keys were placed. Based on previous work, the authors suggest that this effect of hand-clenching on memory may be because clenching a fist activates specific [brain regions](#) that are also associated with [memory formation](#).

More information: Propper RE, McGraw SE, Brunye TT, Weiss M (2013) Getting a Grip on Memory: Unilateral Hand Clenching Alters Episodic Recall. PLoS ONE 8(4): e62474. [doi:10.1371/journal.pone.0062474](https://doi.org/10.1371/journal.pone.0062474)

Provided by Public Library of Science

Citation: Study suggests clenching right hand may help form memories, left may help recall words (2013, April 24) retrieved 10 April 2024 from

<https://medicalxpress.com/news/2013-04-clenching-memories-left-recall-words.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.