

Exercise spawns creative thinking

December 3 2013

People who exercise regularly are better at creative thinking. This is the outcome of research by Leiden cognitive psychologist Lorenza Colato. She published an article on this subject in the scientific magazine *Frontiers in Human Neuroscience*.

Taking a stroll

We know that authors like Søren Kierkegaard, Henry James en Thomas Mann used to take a stroll before they sat down behind their writing desk. Apparently, this helped them to get new ideas and insights. But is it possible to prove scientifically that physical exercise makes creative thinking easier?

Divergent and convergent

To find this out, Colzato investigated whether [regular exercise](#) may promote the two main ingredients of creativity: [divergent thinking](#) and convergent thinking. Divergent thinking means to think up as many solutions as possible for a certain problem. Convergent thinking leads to one single correct solution for a given problem.

Thinking tasks

The psychologist gave thinking tasks to two groups of test persons: people who do [physical exercise](#) at least four times a week – i.e. cycling – and people who do not exercise on a regular basis. The first assignment

was a so-called alternate uses test, in which the participants had to note down all the possible uses for a pen. This was followed by a remote associates task: the test persons were presented with three non-related words, like 'time', 'hair' and 'stretch', and had to come up with the common link, which in this case was 'long'.

Healthy body = sound mind

On the remote associates task, people from the group of frequent exercisers appeared to outperform those who did not [exercise](#) regularly. Colzato: 'We think that physical movement is good for the ability to think flexibly, but only if the body is used to being active. Otherwise a large part of the energy intended for [creative thinking](#) goes to the movement itself.' Colzato believes that these results support the famous classical idea of a 'sound mind in a healthy body': 'Exercising on a regular basis may thus act as a cognitive enhancer promoting creativity in inexpensive and healthy ways.'

More information: Colzato LS, Szapora Ozturk A, Pannekoek JN and Hommel B (2013). "The impact of physical exercise on convergent and divergent thinking." *Front. Hum. Neurosci.* 7:824. [DOI: 10.3389/fnhum.2013.00824](#)

Provided by Leiden University

Citation: Exercise spawns creative thinking (2013, December 3) retrieved 26 April 2024 from <https://medicalxpress.com/news/2013-12-spawns-creative.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.