



# Walking Stimulates Creativity

Researchers from Stanford University have found that walking boosts creative inspiration. They examined the creativity levels of persons while they were walking, and while they were sitting down. On average the creativity level of the walking people increased by 60 per cent.

TEXT HANS HOOFT

If you claim that your best and most brilliant ideas come to you while you are pacing up and down, you are in good company: Steve Jobs, the deceased co-founder of Apple, was known for his walking meetings, and Mark Zuckerberg (Facebook) was also spotted holding meetings ‘on the hoof’. A recently published report concludes that walking indeed stimulates creative thinking. This boost even continues for a while after the exercise. The report, ‘Give Your Ideas Some Legs: The Positive Effect of Walking on Creative Thinking’ by Stanford researchers Marily Oppezzo and Daniel L. Schwartz tells us why.

The research revealed that it did not make any difference in the level of boosting whether the person was walking in-house or in the open air. The act of walking itself, and not the surroundings was the determining factor. In general, the creativity levels of the walking persons were consistently and considerably higher compared to those of the sitting persons.

## Treadmill

Other research focused on how, in general, aerobic exercise protects the long-term cognitive functions, but so far, apparently no research was performed that focused on the effect of non-aerobic walking on the simultaneous creating of new ideas, and to compare the results of this research with sitting down.

One of the experiments showed that a person who walked indoors – on a treadmill in a room facing a blank wall – or who walked in the open air produced double the amount of creative answers, compared to a person who was sitting in a chair. The ‘creative juices’ even kept flowing for a while after the person had sat down, the research revealed.

## How to measure creative thinking

The research consisted of four experiments in which 176 persons had to perform tasks that researchers normally used to measure creative thinking. The test persons were examined under various circumstances: indoor walking on a treadmill or sitting – in both cases viewing a blank wall – and outdoor walking or sitting in a wheelchair while they were pushed, in both cases following a predetermined routing. The wheelchair option was used to have the participants experience the same visual movement as the walking persons. Different combinations were also compared, such as two consecutive sitting sessions, or a walking session followed by a sitting one. The walking or sitting sessions used to measure the creativity lasted between 5 and 16 minutes, depending on the tasks tested.

Three of the experiments were ‘divergent thinking’ creativity tests. This is a thought process or method used to generate creative ideas by considering many different solutions. In these experiments the participants had to come up with alternative applications for certain objects. They were given different sets of three objects and four minutes to come up with as many as possible solutions for each set. An answer was considered new if no other person in the group used it. The researchers also vetted the suggestions on applicability. For instance: ‘wheel’ could not be used as a pinkie ring.

The great majority of the participants in these three experiments performed better creatively while walking than when they were sitting, the test showed. In one of these experiments the persons were tested indoors, first sitting, walking on a treadmill. The creative output increased by an average of 60 per cent when the test persons was walking.

A fourth experiment evaluated the creative output by measuring the ability to generate complex analogies for given sentences (prompts). The most creative answers were those which reflected the deeper structure of the prompt. For instance: for the prompt ‘a robbed safe’ the answer ‘a soldier suffering from PTSD’ reflected the sense of loss, violence and disfunction. ‘An empty wallet’ did not. The result: 100 per cent of the test persons walking outside could generate at least one high-quality, new analogy, compared to 50 per cent of those who were sitting indoors.

### No connection to focused thinking

But not all thought processes are similar. Although the research showed that walking was beneficial to the creative brainstorm process, it had no positive effect on the sort of focused thinking that is necessary for single, correct answers.

“This isn’t to say that every task at work should be done while simultaneously walking, but those that require a fresh perspective or new ideas would benefit from it,” said Opezzo.

The researchers gave the participants a word association task, one that is commonly used to gauge insight and focused thinking. The test persons were given three words, and their task was to generate the single word that could be used in combination with all three given words, to make compound words. To name an example: if the given words were ‘cottage, Swiss and cake’, the correct answer would be ‘cheese’.



In this test, the persons walking performed slightly worse than those who gave their answers sitting. Productive creativity comprises a series of steps – from generating an idea up to the execution – and the execution showed that the benefits of walking applied to the ‘divergent’ element of creative thinking, but not for the more ‘convergent’ element of focused thinking which is characteristic of insight.

Although the research has been able to ascertain some facts, it also raised many questions. Like: how does the body influence the mind?

And: is it just about walking, or do similar forms of exercise produce the same boosting effect? Fact is that physical activity is important and too much and too long sitting is detrimental to a person’s health. The results of this research is yet another justification for the integration of physical activities in our work days, be it a lunchwalk or conducting a meeting while walking. Physical activity makes us healthier, and as a bonus: more creative.

*Based on an article from Stanford University Press*

