

Does regular physical activity help us make better decisions?

It is well established that regular exercise is good for your physical and mental health. Exercise improves brain functioning and slows down age related decline in cognitive abilities, such as memory and thinking skills.

It is not surprising that promoting physical activity in the workplace has become a trend in the corporate world lately. US businesses now **spend about \$6 billion a year** on employee wellness programs, many of them on cut-price gym fees or work-based exercise facilities. LSE also offers a broad range of wellbeing initiatives and exercise classes for **staff** and **students**.

These programs can reduce stress at work and improve employee's health – reducing sick days and saving the companies millions in lost productivity. Regular physical activity has also been shown to improve employee's mood, to foster creativity and innovation, and to strengthen self-esteem and leadership skills.

Little research however has investigated whether physical activity can also aid decision making. So for my research project – which I'm working on **with Professor Amitav Chakravarti**, we wanted to investigate whether regular physical activity is beneficial for people's judgments and decision making skills. In particular, we were exploring how good exercisers are at processing different types of information in order to make judgments in an applied context – consumer products.

In today's busy world consumers get a huge amount of product information all day long. Quite often a big part of that information is irrelevant for the decisions that they have to make. Filtering out irrelevant product information is becoming an increasingly desirable skill for consumers who want to make good product choices.

Previous research in the exercise domain has shown that physical activity can improve people's ability to inhibit distracting stimuli in psychometric tasks. We wanted to test whether the positive effects of regular physical activity also extend to 'real life' situations, such as consumer product judgments.

We know from **marketing research** that consumers find it very difficult to ignore irrelevant product information. Exposure to irrelevant product information typically weakens consumers belief in a product's benefit, and results in less positive product evaluations – a phenomenon that has been labelled the '*dilution effect*'. The dilution effect represents a judgmental bias, since irrelevant information is taken into account, when in fact it should be ignored in order to make the optimal choice.



In a series of studies we tested whether regular exercisers (here is a **definition** if you want to check whether you are one!) are less prone to show the dilution effect in product judgments. We gave our participants a number of different products which they had to evaluate on an important product dimension (e.g., processing speed of a computer). The experiment had two conditions:

- In the **control condition** participants only saw relevant product information (e.g., very power processor).
- In the **dilution condition** people saw the same relevant product information but they additionally received irrelevant information (e.g., the company sponsors the NYC marathon).

The same set of product stimuli had been used in previous studies and tested extensively to make sure that the irrelevant information was perceived as clearly uninformative by consumers.

After the product evaluations, we asked people in detail about their physical activity habits, and we measured various other control variables that might explain differences between exercisers and sedentary people (such as educational level, mood, self-control, Big 5 personality traits, amongst others).

In two studies we found that regular physical activity seems to be beneficial for consumer decision making. Individuals who were physically active – especially in their leisure time, managed to ignore the irrelevant information and judged the products only based on the information that was useful and informative. Their product judgments in the control condition and dilution condition did not differ significantly from each other. Participants who were not exercising regularly on the other hand showed the classic dilution effect.

When analysing the data we made sure that there were no other differences between the exercisers and the other people (we controlled for a lot of covariates), but the findings still remained the same.

Interestingly, we didn't find the same results for people with a job that requires regular physical activity. The 'active at work group' also diluted their product judgments when facing irrelevant information. The motivational component of leisure activity seems to be important for the beneficial effects of physical activity. Like in [previous research](#), an 'exercise mind-set' seems to matter. So it's not enough to burn the calories during your working hours if you have an active job – only leisure activity seems to help.

So far our data comes from self-reports. This means that our participants might have overestimated how much they are exercising. To rule out this possibility we are currently working on a study in collaboration with a gym so we can be 100% sure that our participants are regular exercisers.

Obviously correlation isn't causality, but past research on the beneficial effects of physical activity for cognition indicates that it is a likely explanation of the findings. We are also working on a randomized controlled trial to tackle the causal link between regular physical activity and consumer decision making.

More research is needed, but so far our results look promising and it seems that regular physical exercise helps us make better judgments in the face of irrelevant product information. So for anyone who still needs motivation to exercise, this research might give you another reason to keep that promise to yourself of going to the gym this week!



Laura Zimmermann is a PhD candidate in the Department of Management at LSE. Her research explores the effects of physical activity on consumer decision making. Prior to LSE she did a bachelor's and master's degree in Experimental Psychology. Alongside her research, she is teaching courses in marketing, consumer behaviour and managerial decision making.



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