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**JIRI ROTSCHEDL**

**Prague University of Economics and Business, Czech Republic**

# PSYCHOLOGICAL FACTORS INFLUENCING CONSUMERS

## Abstract:

This paper deals with the issue of psychological factors that influence consumer behaviour and therefore have an impact on demand formation. The paper summarizes existing research studies in the field of social psychology and places these studies in the context of economics, consumer decision making. The paper also highlights the founder of the Bata company, Tomas Bata, who built a multinational shoe company in the 1920s and who intuitively applied rules in the management system for which psychologists only found a scientific explanation in the second half of the 20th century and which did not fully develop into behavioral economics and neuroleadership until the first two decades of the 21st century, 100 years later.

## Keywords:

priming, framing, ego depletion, psychology, behavioral economics, Tomas Bata, consumer decision making, consumers.

**JEL Classification:** D10, D87, D11

## Introduction

Economics works with the consumer as a rational subject. The rational consumer must satisfy, in a simplified form, the main points known to all:

- The axiom of **completeness of** comparison
- The axiom of **transitivity**
- The axiom of **unsaturation**
- And the sometimes stated **axiom of diversity**

Based on these axioms, the consumer has consistent preferences; the comparison of two choices will always have the same value to the consumer, or the sequence will never change.

The consumer so defined is the product of mathematicians and economists. It differs from the real person in almost everything. R. Thaler and C. R. Sunstein therefore introduce two terms - **Econs** (our rational consumer fulfilling the axioms) and **Humans** - the consumer living in our real life (Thaler and Sunstein, 2008).

So we can ask the question, which psychological factors influence the modeled **Econs** so that he is made into a **Humans** in everyday life? This paper seeks to answer that question.

Throughout history we can find economic approaches that have tried to describe the heterogeneous behaviour of consumers, but this still does not form a coherent conception of economic thinking. In a way, P. Samuelson has matured this issue in his theory of "Manifested Preferences" (Samuelson, 1948). He examined only the outcome of consumer decisions, i.e. how the consumer ultimately manifested himself. Therefore, he did not need to examine the reasons that led to the decision. In doing so, reasons can be crucial in trying to find an internal model of the behavior of our real **Humans**.

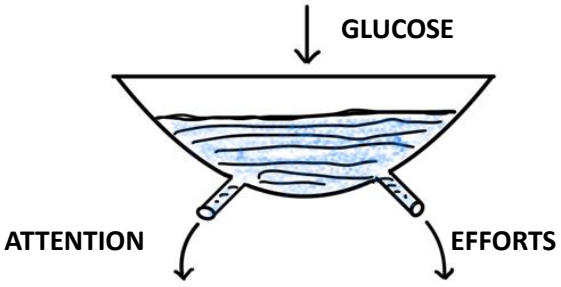
## Mental effort

We exert mental effort especially when we are solving a demanding cognitive task that requires a large amount of attention. Attention itself consumes a great deal of mental energy. Therefore, students have a need to eat sweets or other sources of energy when studying for exams.

In addition to mindfulness, it is also an effort that drains our mental energy. If an individual is doing an activity for which effort is not required, he has more energy left to sustain attention. Conversely, if it is an activity that requires effort, mental fatigue occurs quickly. At the same time, the individual has only a limited store of mental energy - glucose - which he or she must then replenish.

If we imagine that we have a reservoir of our mental energy somewhere in our body, then effort and attention (especially deliberate attention) draws energy from this reservoir.

**Figure 1: Mental energy reservoir**




Source: own processing

In making an effort, the general law applies: the **Law of Least Effort**, i.e., "*If there are several ways to achieve the same goal, one will eventually gravitate toward the least demanding way*." In order to go against this natural law of least effort, one must possess an important ingredient called "**Self-Control**".

## Self-Control

An activity that we find unpleasant or boring requires a great deal of self-control (attention + effort) to complete. Thus, the above figure shows that self-control drains mental energy through both channels. The more effort we have to exert, the less we lack to sustain attention or deliberate attention.

People given a challenging **cognitive task** - e.g., memorizing a series of numbers while being offered a choice of an **irresistible cake** or a **fruit salad** - were more likely to choose the irresistible cake. The part of the processes in the brain that seek to remember the digits are so busy that the decision about what to have is left to the processes, but they operate without the need for effort and therefore without self-control.

Self-control is very closely related to shopping behaviour. People with a strong degree of self-control actually buy only what they need and do not give in to their emotional desires; they are disciplined. We could say that such customers are not the most popular with retailers. Therefore, consumers succumb more easily to their inner desires and emotions if they are mentally exhausted.

Some people do not have self-discipline naturally developed. They behave impulsively and succumb to glucose fluctuations or have such strong physiological changes in the body that they cannot maintain self-discipline despite sufficient mental energy. They may be individuals who suffer from ADHD or individuals addicted to alcohol and drugs. These cases have a physiological cause, related to hormonal changes or structural changes in the brain due to exposure to addictive substances. This occurs mainly in the context of impaired sensitivity of receptors to dopamine, or the body's established dependence on dopamine, which plays a key role in these cases.

If retailers wanted to increase sales in their stores, they should give each customer a puzzle upon entering the store, the solution to which will get them a discount on their purchase. The conundrum puts a strain on the conscious processes in the brain and leaves shopping to automatic processes that will contribute to consumers eventually having products in their basket that they would not otherwise have bought. This would be amplified for those consumers who come into the store hungry or undernourished. They have very low glucose levels without being forced to solve a puzzle or other cognitively demanding task.

If consumers don't want to buy more than they plan to at the store, they should go shopping with their sugar levels supplemented with simple sugar or small meals. Big meals, on the other hand, cause a degree of fatigue, called postgastric dementia, which can reduce our self-control.

## Ego depletion

Glucose depletion is called "ego depletion" and is related to mental fatigue. Mental fatigue is mainly caused by the depletion of mental energy, which is physiologically represented by glucose. The amount of glucose decreases due to cognitive effort and we then lack it for solving other cognitively demanding tasks. A phenomenon called "ego depletion" occurs.

Cognitive, emotional or physical effort has been investigated in studies by the team around Roy Baumeister. This eminent 20th century psychologist and his colleagues discovered that this effort is drawn from one source, as I have already called it: a reservoir of mental energy and also physical energy (Gailliot and Baumeister, 2007).

Baumeister and his team have shown in their studies that engaging in a task leads to a drop in blood glucose, and if one replenishes glucose - e.g., grape sugar, but practically a light meal - the effect of ego depletion is mitigated or reduced (Gailliot et al., 2007).

What drains or diverts our resources (blood glucose) is, for example, **physical exercise -** and of course vice versa. As early as 1898, research showed that people who were assigned a mental task exerted only 50% more force on the physical task than people who had no mental task (Welch, 1898).

Cognitively busy people are more likely to make **selfish decisions**, use **sexist language**, make **superficial social judgments**, etc. Alcohol and sleep deprivation have a similar effect on our behavior. (Kahneman, 2012).

Consumers with a lower standard of living are very often faced with mental challenges regarding their livelihood. Their brains are preoccupied with thoughts such as: will my wages be enough to cover my expenses; how will I pay for my children's school supplies or a ski course? Some consumers focus their attention on finding ways to solve such problems. These problems therefore drain consumers' mental energy, which they then lack for making other important decisions or for maintaining self-control. This theory could quite easily explain why these individuals are more likely **to succumb to addictions** (smoking, alcohol, gambling, etc.) and why they are much more likely to **impulse buy** and **trust other** people less (Liu and Hao, 2020).

## Priminig

Priming is a form of thought programming. By exposing ourselves to a certain action, we can change our behaviour. This is a tool for influencing individuals, it also has positive negative effects. Try the following exercise:

Answer the following questions:

- What color is the washing machine?
- What colour is the fridge usually?
- What does a cow drink?

The vast majority of us will answer "white" to the first two questions and then inevitably answer "milk" to the third question - unless conscious brain processes get involved and evaluate the initial suggestion of the automatic (association) process "milk" as wrong and say **water**.

The first two questions program our brains to answer the third question incorrectly. That's the magic of priming. Most of the participants in this experiment didn't even find it strange that they answered the third question with milk.

Priming is widely used in product marketing today. It can be found very often in political marketing. Unless we know specific examples of how priming works, it is very difficult to avoid it. It takes place at an unconscious level.

We don't have to be exposed to priming only from the outside. We can expose ourselves to it by the thoughts we have, the way we move, the way we call ourselves. If we talk constantly about old age, or about topics related to old age, we will physically behave more like an old person and vice versa. These conclusions are quite fundamental in how we use words to induce new stereotypes. All of these phenomena take place below the level of our consciousness and influencing our actions through thought is known as the "**ideomotor effect**" (Kahneman, 2012).

The ideomotor effect also works in the opposite direction. The pencil technique is very often mentioned in the literature. You can put a pencil in your mouth in two ways, but they involve different facial muscles. By engaging the mime muscles, the brain receives information that something is happening and induces other processes to do so. Either you put the pencil in your mouth so that it points from one corner to the other, which forces the facial muscles to engage the facial muscles in a way that makes you smile. The other option is to put one side of the pencil in your mouth and hold it with your lips. You'll need to engage your facial muscles in the same way as if you were frowning. (Strack, Martin and Stepper, 1988). The expression on your face will show in your emotions and even thoughts. I use this technique when I can't fall asleep or when I want to fall asleep quickly. I try to artificially put on a smile and artificially try to hold it as long as possible. The smile relaxes you and the body falls asleep more easily.

Priming was also used by Tomas Bata, the founder of the shoe factory in the 1920s, in his management system. One of the life philosophies he taught his factory workers was cleanliness. Bata's system saw cleanliness as adding value to the following: "In order and cleanliness, clear and creative ideas can flow better." (Konchikova, 2022).

In a study (Huangfu et al., 2021), participants were less likely to accept immoral workplace behavior in a clean environment than in a dirty environment, while washing (hands or face vs. not washing) had no significant effect on employees' moral judgments about workplace immorality. Thus, it appears that the cleanliness of the work environment may positively influence the propensity to condemn/accept immoral behavior.

### *Table 1 - Examples of priming effects*

| Exposure to priming | Priming effect | Source : |
|---|---|---|
| Money pictures (monitor background, etc.) | They lead to individualism, selfishness, lower willingness to help others | (Vohs, Mead and Goode, 2006) |
| Displaying a photo of the dictator in classrooms and offices | It leads to the restriction of spontaneous thoughts, independence | (Kahneman, 2012) |
| Reminder of mortality | It leads to authoritarian values | (Greenberg *et al.*, 1990) |
| Thinking about an act he's ashamed of | It leads more often to the addition of English words W_ _H and S _ _P to WASH and SOAP instead of WISH and SOUP | (Kahneman, 2012) |
| Photo of eyes above the coffee machine where the coffee is based on voluntary payment | Leads to higher coffee collections (see image below the table) | (Bateson, Nettle and Roberts, 2006) |
| The thought of an individual sticking a dagger in his colleague's back | Leads to a tendency to buy more soap, disinfectants versus juice or chocolate (the so-called **Lady Macbeth Effect**) | (Zhong and Liljenquist, 2006)[1] |
| Voters voting in the polling stations at school | Leads to a different education funding decision than if the election were held at a different location (church, office) | (Berger, Meredith and Wheeler, 2008) |
| Nodding head in agreement (up and down) | Leads to more frequent agreement with broadcast messages | (Kahneman, 2012) |

[1] Later studies (Trakulpipat *et al.*, 2021) of the relationship between guilt and physical cleansing show that physical cleansing of the body (hands/mouth, etc.) and feeling clean have the ability to:

- alleviate guilt after immoral behaviour
- reduce prosocial behaviour by changing ethical norms
- to promote a clean slate effect

| | | |
|---|---|---|
| Disapproving head shake (left to right and back) | Leads to more frequent disagreement with broadcast messages | (Kahneman, 2012) |
| If people are forced to lie:<br>- on the phone<br>- to e-mail | It leads to preferences:<br>- mouthwash before soap (phone)<br>- soap before mouthwash (e-mail) | (Lee and Schwarz, 2010) |

## References

Bateson, M., Nettle, D. and Roberts, G. (2006) 'Cues of being watched enhance cooperation in a real-world setting', *Biology letters*, 2(3), pp. 412–414.

Berger, J., Meredith, M. and Wheeler, S. C. (2008) 'Contextual priming: Where people vote affects how they vote', *Proceedings of the National Academy of Sciences*, 105(26), pp. 8846–8849. doi: 10.1073/pnas.0711988105.

Gailliot, M. T. and Baumeister, R. F. (2007) 'The Physiology of Willpower: Linking Blood Glucose to Self-Control', *Personality and Social Psychology Review*, 11(4), pp. 303–327. doi: 10.1177/1088868307303030.

Greenberg, J. *et al.* (1990) 'Evidence for terror management theory II: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview.', *Journal of personality and social psychology*, 58(2), p. 308.

Kahneman, D. (2012) *Myšlení rychlé a pomalé*. 1. ed. Brno: Jan Melvil Publishing.

Končitíková, G. (2022) *Inspirace Baťa*. Zlín: Nadace Tomáše Bati 2022, ISBN: 9788090818309.

Lee, S. W. S. and Schwarz, N. (2010) 'Dirty Hands and Dirty Mouths: Embodiment of the Moral-Purity Metaphor Is Specific to the Motor Modality Involved in Moral Transgression', *Psychological Science*, 21(10), pp. 1423–1425. Available at: http://www.jstor.org/stable/41062501.

Liu, C.-J. and Hao, F. (2020) 'Effect of Ego Depletion on Interpersonal Trust among Individuals with Substance Use Disorders', *Journal of Psychoactive Drugs*, 52(5), pp. 463–471. doi: 10.1080/02791072.2020.1773585.

Samuelson, P. A. (1948) 'Consumption theory in terms of revealed preference', *Economica*, 15(60), pp. 243–253.

Strack, F., Martin, L. L. and Stepper, S. (1988) 'Inhibiting and facilitating conditions of the human smile: a nonobtrusive test of the facial feedback hypothesis.', *Journal of personality and social psychology*, 54(5), p. 768.

Thaler, R. H. and Sunstein, C. R. (2008) *Nudge: Improving decisions about health, wealth, and happiness.*, *Nudge: Improving decisions about health, wealth, and happiness.* New Haven, CT, US: Yale University Press.

Trakulpipat, C. *et al.* (2021) '"Macbeth Effect": The link between physical cleanliness and moral judgement', *Kasetsart Journal of Social Sciences*, 42(4). doi: 10.34044/j.kjss.2021.42.4.10.

Vohs, K. D., Mead, N. L. and Goode, M. R. (2006) 'The psychological consequences of money', *science*, 314(5802), pp. 1154–1156.

Welch, J. C. (1898) 'On the Measurement of Mental Activity through Muscular Activity and the Determination of a Constant of Attention.', *American Journal of Physiology*, I, pp. 283–306.

Zhong, C.-B. and Liljenquist, K. (2006) 'Washing away your sins: Threatened morality and physical cleansing', *Science*, 313(5792), pp. 1451–1452.