ARE PEOPLE REALLY IRRATIONAL? NAÏVE ANALYSIS SAYS “YES”, BUT DETAILED UTILITY-BASED ANALYSIS SAYS “RARELY”


Several similar examples appeared in a book by another Nobel Prize winner, Daniel Kahneman [1]. In [2], we showed that most of these examples can be explained – both qualitatively and quantitatively -- if we take into account that our ability to process information is limited. In this paper, we show that a similar explanation is possible for Thaler’s examples as well.

Case study. Many examples of seemingly irrational behavior are presented in Chapter 3 of [3]. In this paper, we provide an explanation for the first example; similar explanations are possible for most other examples.

In this example, two graduate students get, as a gift, two expensive tickets to a professional basketball game. The stadium where the game is scheduled to be is an hour and a half drive from the students’ residence. They originally plan to attend the game, but on the day of the game, there is a big snowstorm which makes driving difficult. Because of the snowstorm, they decide not to go. However, they notice that if they had bought these tickets, they would have driven to the game.

On the surface, this indeed sounds irrational: in both cases – of free and of bought tickets – they have the tickets already, so why should their behavior depend on the origin of the tickets?

Our explanation. In both cases, the students consider the value $G$ of attending the game versus the negative value $S = -|S|$ of driving through a snowstorm. If the students stay at home, they do not get any fun from watching the game live, but on the other hand, they do not have to drive in a snowstorm, so their overall gain is 0. On the other hand, if the students decided to drive, they would gain the equivalent amount $G$ and lose the equivalent amount $|S|$, so the overall gain will be equal to the difference $G - |S|$.

The fact that the students decided to stay at home means that for them, the difference $G - |S|$ is smaller than 0, i.e., $G < |S|$. In other words, their potential
value of watching the game is smaller than the negative value caused by driving in a snowstorm.

So what would have been different if the students bought the tickets? That would mean that to them, the value V of attending the game is larger than (or equal to) the value of the cost of the tickets C: V > C or at least V = C. In this case, the students’ remark that they would have attended the game if they bought the tickets simply means that in this case, the value V of attending the game would have been much larger than the discomfort |S| of driving in a snowstorm. In other words, this remark means that for every value V which is larger than or equal to C, we have V > |S|. Thus, we have C > |S|.

So, there is no contradiction: we have V < |S| but C > |S|. This is in perfect accordance with the fact that the students did not buy the tickets: if the value V of attending the game was, to the students, larger than the cost C of buying the tickets, they would have bought them themselves. The fact that they did not buy the tickets shows that for the students, V < C. So, there is no contradiction with the fact that the smaller value V is smaller than the discomfort |S| of driving in a snowstorm, while the larger value C is larger than this discomfort value |S|.

Another example. A person P likes an expensive sweater but decides not to buy it, since it is too expensive. His wife – with whom they share the finances -- gives him this sweater as a birthday gift; he is happy. What changed?

The fact that they are both happy means that the value V to both of them of P having this sweater is larger than this sweater’s cost C. From this viewpoint, if P knew that his wife would approve this purchase, he would have bought it himself. However, since he was not sure about that, he did not know whether the joint value V would be larger than C or not, so he did not buy the sweater himself. Again, no contradiction, no irrationality.

**Литература**