Fear of a pandemic. Biases in risk perception and risk taking in the time of coronavirus.
Michał Krawczyk

Summary for the general public

The new coronavirus has claimed hundreds of thousands of lives worldwide. The pandemic has been referred to as the worst global crisis since World War II. Actions of governments and individuals (such as implementing social distancing) may slow down the spread of the virus, thereby saving lives. However, they come at great psychological and economic costs. Both the governments and individuals are therefore facing a challenge of making reasonable judgments and decisions when facing a fearsome threat. In this project, we will investigate how framing of decision-making problems in terms of coronavirus affects people's ability (and willingness) to stick to the rational solutions.

Towards this end we will ask participants of our online experiments to answer a number of questions. These will be tricky in that intuitive answers will be different from correct answers. For example, the responder may be informed that a COVID test gives the correct result in 95% of the cases and asked what is the probability that a person whose test cam out positive is indeed infected. The intuitive answer is 95%, but the true answer critically depends on the fraction of population that is infected; in particular, when it is very low, most positive results are false positives.

We will check if such deviations from rationality are more or less frequent than in equivalent, but less emotionally taxing, more neutral framings. For example, another group of participants will be told that a medical examination of a patient suspected to have common cold gives the correct result in 95% of the cases (and asked to answer an analogous question).

Interestingly, existing literature does not give obvious predictions. On the one hand, fear may make people more attentive. On the other hand, it may make them focus exclusively on some aspects of the situation. For example, in risky choices, fear tends to make people focus too much on the worst possible outcomes, causing risk aversion.

To verify if it is indeed fear that drives the difference between the coronavirus treatment and other treatments (if any), we will ask a number of questions about various emotions participants might experience and thoughts they may ponder when answering.

The project will serve three main goals:

- We will be able to check how fear and other emotions affect decision-making in the state of pandemic, possibly also leading to such irrational decisions as panic buying.
- We will be able to offer suggestions how these distortions could be corrected.
- Utilizing the exceptional "natural experiment" of the coronavirus crisis, we will contribute to the broader literature on how fear and other emotions affect rationality, risk perception and risk taking.