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The way people typically respond to judgment and decision-making tasks has invoked much controversy regarding human rationality. Some have argued that people's answers are indicating a systematic irrationality of human cognition. Others responded that the alleged irrationality of the subject's responses is caused by the phrasing of these problems that leads the subjects to alternative interpretation of the information given in the problems than intended by the authors.

The purpose of the current study is to approach this debate by utilizing a methodology, which relates each subject's interpretations to his decisions or judgments.

The debate has much to benefit from such a methodology since the claim that the subject's responses indicate irrationality is unwarranted unless the subject's interpretation is determined. In addition, since typically not all subjects give the same responses to these tasks, relating between the subject's interpretation and her answer patterns could lead to a better understanding of these individual differences.

The current study examines two problems: the decision-making task known as the "disease problem" Tversky and Kahneman (1981) and the judgment task known as the "Linda problem" Tversky and Kahneman (1983)

Due to space limitations, I will focus here on the "Linda problem"

In this task the subjects are presented with a description of a liberal-progressive woman named Linda and asked to rate the probability of the following three options:

1. Linda is a bank teller (event A),
2. Linda is active in the feminist movement (event B)
3. Linda is a bank teller and active in the feminist movement (events A and B)

Typically, subjects rate option 3 higher than option 1 thus violating the rule of probability named the conjunction rule: $p(A \text{ and } B) \leq p(A)$. By violating this rule, the subjects are ignoring the logical consideration of set relation.

Contrary to Tversky and Kahneman's claim that the subjects rating violates the conjunction rule Politzer and Noveck (1990) have argued that this task demands lead the subject to interpret option 1 as: A and not B. With this interpretation, the subject's typical response does not violate the conjunction rule.

To determine subject's interpretation I first asked them to rate the three options and then to choose for each one of the three options the paraphrasing, which conveys most accurately their understanding of this option.

For example, for option 1: Linda is a bank teller the subjects were asked to choose the best paraphrasing from an answer set that includes the following options:

1. Linda is a bank teller and is not active in the feminist movement.
2. Linda is a bank teller who may or may not be active in the feminist movement.

I expect to find a correlation between the ways subjects are rating the options in the rating task and their choices of paraphrasing.

For the Linda problem the main prediction is that subjects who rate option 3: Linda is a bank teller and active in the feminist movement higher than option 1: Linda is a bank teller, will choose option 1 in the paraphrasing task, whereas subjects that rate option 1 higher than option 3 will choose option 2 in the paraphrasing task

In addition, I believe that some subjects interpret option 2: Linda is active in the feminist movement as suggesting that Linda is not working at all, and that this interpretation leads them to rate option 3 higher than option 2. It is predicted that when asked to choose paraphrasing for option 2 these subjects will choose the paraphrasing: Linda is active in the feminist movement and does not have a job.

References:

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