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Please watch the video lesson below to understand how the answers have been prepared-
https://youtu.be/Jhg0805ATmE?si=DBmLbg9KY7LCmvPr

Describe one study investigating how *one* bias in thinking and decision-making influences human behaviour. [9]

A bias refers to an error in thinking i.e. in the processing of information. It influences both, thinking and decision-making, which is the process of choosing between alternatives. Tversky and Kahneman have discovered two types of thinking that they refer to as system 1 and system 2 thinking respectively. The former is quick, less effortful thinking which is seen under time pressure or when an individual wishes to save cognitive effort. The latter is careful, effortful thinking seen under more relaxed conditions when decisions are worth spending mental effort on. A bias that arises from the quick thinking done by system 1 is the cognitive ease bias. This involves taking to quick thinking when information available is easy to process. The influence of this bias in reducing the accuracy of taking decisions is demonstrated in a study by Alter and Oppenheimer.

These researchers conducted a true experiment to investigate how fluency of information would trigger the cognitive ease bias in making decisions related to simple mathematics and logic. Researchers manipulated fluency of the font in which some word problems were presented to participants. Half the participants received the problems in fluent, easy to read font which was written in 12-point black colour. The other half received the same problems in disfluent, difficult to read font which was written in 10-point, italic grey colour. Thus, using an independent measures design, participants were randomly allocated to the fluent or disfluent condition. It was hypothesised that when presented with the fluent font, which is easy to process, participants would use system 1 thinking as it enables quick processing. Conversely, when presented with disfluent font, they would use system 2 thinking as it would enable slow and careful processing. The participants were 40 Princeton students. They received the problems to be solved on sheets of paper. An example of a problem given to them was, “A bat and ball together cost $1.10. The bat costs $1 more than the ball. How much does each cost separately?” These are problems found on CRT - Cognitive Reflection Tests which are tests involving cognitively effortful problems which are not inherently difficult but need to be thought about carefully while answering. As hypothesised, results showed that out of 3 questions asked, 10% of those in the fluent condition answered all three correctly as compared to 65% of those in the disfluent condition. In conclusion, it was demonstrated how the cognitive ease bias encourages quick processing of information, thereby reducing accuracy in solving logical-mathematical decision making problems.

In sum, the study by Alter and Oppenheimer showcased how presentation of information in terms of fluent font, that is, easy to process presentation triggers cognitive ease bias which is a form of system 1 thinking. This in turn does make information quick to think about but at the same time reduces the accuracy of the decisions made. In contrast, use of system of 2 thinking in information presented not as easy to process as in the disfluent condition in this study helps avoid biases. This underscores the importance of presentation of information in decision making contexts.

Describe how *one* bias in thinking and decision-making influences human behaviour, with reference to one study. [9]

A bias refers to an error in thinking i.e. in the processing of information. It influences both, thinking and decision-making, which is the process of choosing between alternatives. Tversky and Kahneman have discovered two types of thinking that they refer to as system 1 and system 2 thinking respectively. System 1 thinking is fast, automatic and intuitive. It requires minimal cognitive effort but is highly prone to cognitive errors and biases. This is because it prioritises speed over accuracy. In contrast, system 2 thinking is slow, deliberate and analytical. It engages in careful processing of information and thereby avoids errors or biases in thinking. One bias stemming from system 1 thinking is cognitive ease bias. It occurs when thinking is influenced by ease of processing information. Information presented in a way that is easy to understand, triggers this bias, increasing likelihood of errors in decision making. Conversely, information presented in a difficult to understand way, prevents this bias, decreasing the likelihood of making errors and increasing accuracy in decision-making. Cognitive ease bias is observed in those situations in which reasoning tasks can involve seemingly obvious answers but are deceptively simple. In such cases, it prevents deeper reasoning as it encourages thinking to quickly reach to a decision without having to put the effort of thinking through for a while. Conversely, when this bias is not used in such situations, deeper reasoning is used to think about possibly different answers than the ones that seem the most obvious. This process of how the bias influences thinking is demonstrated in the study by Alter and Oppenheimer.

The aim of this study was to investigate how cognitive ease bias can influence the solving of simple logical-mathematical problems. Participants were made to solve three questions in either a condition in which the problems were written in fluent i.e. easy-to-understand font or disfluent i.e. difficult to process font. Results revealed that a very few of the participants in the fluent condition were able to solve all three problems correctly, indicating less accuracy and greater errors. Conversely, a majority of the participants in the disfluent conclusion were able to solve all three problems correctly, indicating greater accuracy and lesser errors. It was concluded that the fluent condition triggered system 1 thinking and thereby, the cognitive ease bias, resulting in more errors. Whereas the disfluent condition triggered system 2 thinking resulting in deeper thinking and greater accuracy.

In sum, the study by Alter and Oppenheimer showcased how presentation of information in terms of fluent font, that is, easy to process presentation triggers cognitive ease bias which is a form of system 1 thinking. This in turn does make information quick to think about but at the same time reduces the accuracy of the decisions made. In contrast, use of system of 2 thinking in information presented not as easy to process as in the disfluent condition in this study helps avoid biases. This underscores the importance of presentation of information in decision making contexts.

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