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Unraveling the framing effect

Laura L. Tran
San Jose State University

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UNRAVELING THE FRAMING EFFECT

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science

by

Laura L. Tran

December 2002

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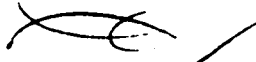
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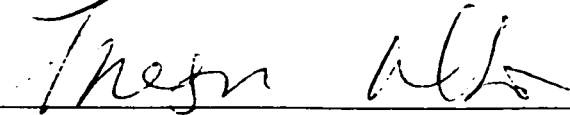
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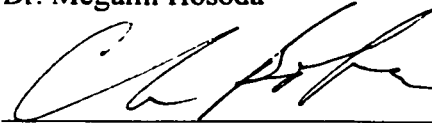
APPROVED FOR THE DEPARTMENT OF PSYCHOLOGY



Dr. Howard Tokunaga



Dr. Megumi Hosoda



Dr. Chris Bober, PG&E Corporation

APPROVED FOR THE UNIVERSITY



ABSTRACT

UNRAVELING THE FRAMING EFFECT: IS IT A FRAMING EFFECT OR A REFLECTION EFFECT?

by Laura L. Tran

Tversky and Kahneman's framing effect (1981) predicts that using positive words to phrase a decision question results in risk-averse decisions and using negative words to phrase a decision question results in risk-taking decisions. Kuhberger (1995) claims that there is a flaw in the methodology in Tversky and Kahneman's framing research, in that the decision choices they presented were not balanced. This research explored whether an experimental design that fully describe instructions in a balanced manner would result in decisions that are of different risk preferences. As hypothesized, results from a one-way ANOVA showed that there was no difference in risk preferences when decision instructions were fully described. Future framing studies should be examined under closer scrutiny in the construct of decision scenarios.

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This study investigates how the wording and presentation of a situation influence decisions made regarding the situation. Tversky and Kahneman (1981) developed the framing effect theory to show that explaining a situation using two different wordings can lead to two different decisions made regarding the situation. Subsequent research raised questions regarding how methodologies used by Tversky and Kahneman, specifically the construct of decision choices given to participants, may affect the framing effect theory. Also, past studies have been largely limited to experimental designs containing artificial catastrophic scenarios, such as the outbreak of a life-threatening disease and other disasters that have little application to practical work decisions. The purpose of this study is to slightly modify the methodology used by Tversky and Kahneman as an initial step to examine whether or not the framing effect occurs, while using an experimental design that illustrates a real-life work scenario applicable for human resources professionals performing the recruiting function.

Framing effect

Imagine that you have been investing in the stock market for quite some time. You have invested \$600 so far in the market, with most of your money in unstable junk bonds (i.e., bonds with high yield but with high risk and turnover). One day, you receive a phone call from your stock-broker, who tells you the issuer of the junk bonds has declared bankruptcy, which means your investments are currently worthless. He advises you to sell your junk bonds, and states the possible outcome in one of two

ways: losing \$400 of your original investment, or saving \$200 of your original investment. These two statements represent the same outcome. However, some research in the past (e.g., Tversky & Kahneman, 1981; Huber et al., 1987) suggest that people do not perceive them to be the same. Research suggests that people more often prefer the “saving \$200” option to the “losing \$400” option because of how the choices are stated or presented.

We are asked to make decisions like the one above everyday. We would like to think that the important decisions we make are rational ones that conform to the expected rational decision theory (Kreitner & Kinicki, 1998). In this theory, there are four steps in decision-making: (1) identify the problem, (2) generate alternative solutions, (3) select a solution, and (4) implement and evaluate the solution. According to this theory, people objectively evaluate their options, thinking with consistency and coherence, and make choices that offer the highest expected utility.

A subset of this general decision-making theory, the *subjective expected utility model* (SEU) of decision-making, assumes that people choose decision options resulting in the highest value or utility from the equation $w(p) v(x)$, with $v(x)$ being the utility or worth of the option x , p being the probability of the option, and w the weight attached to the objective probability of obtaining x (Kahneman & Tversky, 1979).

In the stock market investment scenario above, losing \$400 of \$600 and saving \$200 of \$600 both give the same expected value. Consequently, people should not show a significant preference for one option over the other. However, Tversky and Kahneman’s (1981) “framing effect,” which will be explored below, explains that

“because of imperfections of human perception and decision, changes in perspective often reverse apparent size of objects and the relative desirability of options” (p.453).

The framing effect states that often we don't make decisions as rationally as the rational decision theory suggests.

In the classic framing effect experiment, Tversky and Kahneman (1981) presented the following decision problem to participants, half of whom received Version 1, and half of whom received Version 2:

“Imagine that the United States is preparing for the outbreak of an unusual Asian disease expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Assume that the exact scientific estimates of the consequences of the programs are as follows:

Version 1:

- (A) If program A is adopted, 200 people will be saved.
- (B) If program B is adopted, there is a $1/3$ probability that 600 people will be saved, and a $2/3$ probability that no people will be saved.

Version 2:

- (C) If program C is adopted, 400 people will die.
- (D) If program D is adopted, there is a $1/3$ probability that nobody will die, and a $2/3$ probability that 600 people will die.”

Notice that Choice A (having 200 out of 600 people saved) and Choice C (having 400 out of 600 people die) are essentially identical in meaning and in utility ($A=C$).

Likewise, Choices B and D are the same ($B=D$), just worded or framed differently.

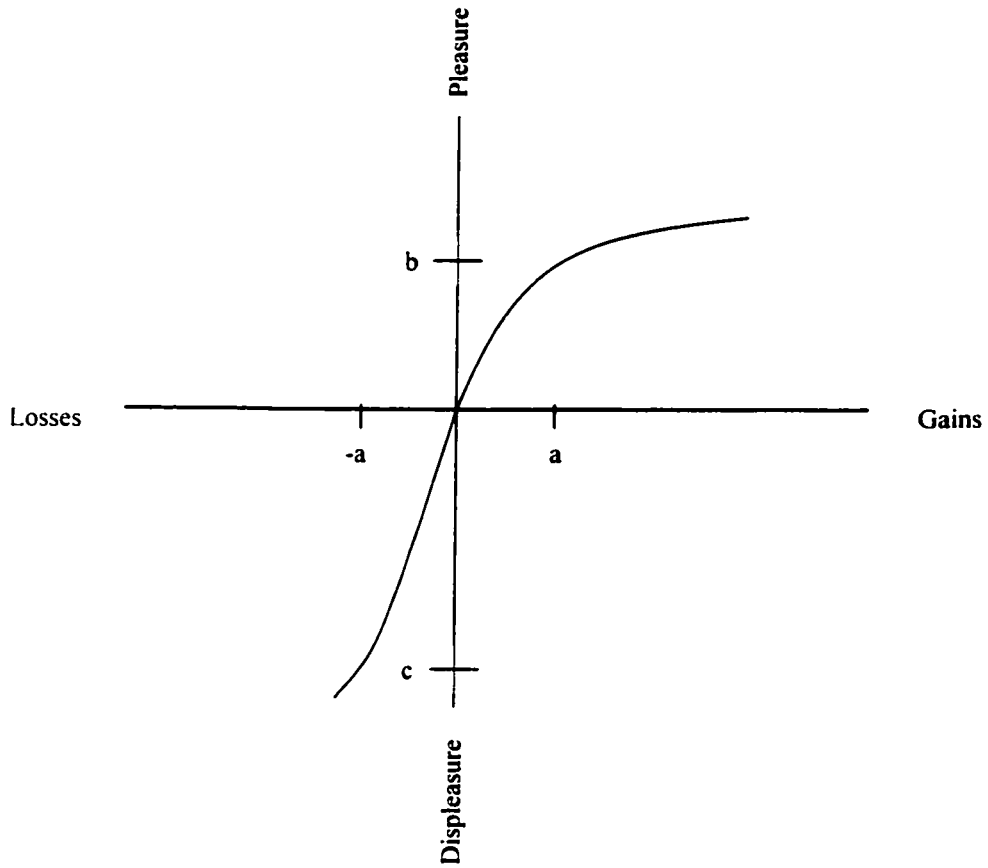
However, Tversky and Kahneman reported that 72 % of participants chose the risk-averse option (Choice A) in Version 1, which highlights lives saved. In contrast, out of those whom were presented Version 2 options highlighting lives lost, 78% of participants chose the risk-taking option (Choice D). Because the two versions are formally identical, these results seemed to indicate an interesting behavior that violates the notion of rational choice postulated in the SEU theory of decision-making.

So how do Tversky and Kahneman explain this behavior? Their prospect theory (1979) was developed to show how decisions such as the ones above regarding the Asian disease decisions could be explained, challenging the SEU model of decision-making. In the SEU model, the utility is $w(p) v(x)$, with w (weight) being a function of p (probability). However, in prospect theory, these variables are treated completely differently. Tversky and Kahneman treat what they call *preferences* as a function of *decision weights*, and these decision weights do not always correspond to probabilities. In fact, prospect theory states that decision weights tend to overweigh small probabilities and under weigh moderate and high probabilities. Also, desired outcome for the SEU model is the utility defined in terms of net wealth, whereas the desired outcome according to prospect theory is the value defined in terms of gains and losses, with these gains and losses being deviations from a reference point.

Tversky and Kahneman's prospect theory explains differences in the subjective values for gains and losses using a hypothetical value function (see Figure 1). This model indicates that the displeasure associated with losing is generally greater than the *pleasure associated with winning*. This could explain why Choice A (saving 200 out of 600 lives) was chosen significantly more often than Choice C (losing 400 out of 600 lives). The perceived displeasure in losing 400 out of 600 lives is greater than the perceived pleasure in saving 200 out of 600 lives. Therefore people chose to *avoid* the more intense negative feeling, and tend to choose Choice A more often than Choice B, although they have the same expected utility outcome/value.

Tversky and Kahneman labeled this change of preferences between options as a function of the variation of what they call frames (but later Kuhberger calls domains) the framing effect. When a problem or situation is presented as using positive words (200 of 600 threatened people will be saved), it is predicted that people will prefer risk-averse decisions regarding the situation. They will avoid taking risks and choose to have 200 saved for sure. However, when a problem or situation is presented using negative words (400 of 600 threatened people will die), people will prefer the risk-taking decision. They would gamble for all to live or all to die.

Figure 1. Tversky and Kahneman's Value Function: Level of pleasure and displeasure as a function of gains and losses



Note. $|c| > |b|$

Kuhberger's meta-analysis on framing research

Since Tversky and Kahneman's studies on their prospect theory and framing effect, much research has been done examining the framing effect. There are two approaches in framing research: one is to uncover factors that disprove or weaken the framing effect, and the other approach is to uncover explanations of the framing effect. Ultimately, piecing findings from both approaches helps us understand what the framing effect is and what it is not, to create a whole picture of this phenomenon.

Kuhberger (1998) conducted a meta-analysis on the influence of framing on risky decision making. He looked at more than one hundred research reports in framing published since Tversky and Kahneman's research. He found that over the years, the framing effect size had decreased significantly (mean $d = .308$). This can be regarded as natural because researchers often find limitations to a relatively new phenomenon, as this is a means to uncover the basic elements that explain a theory in scientific research. However, the weakening of the framing effect could also be an indication that there are flaws in previous research that are beginning to be detected.

In Tversky and Kahneman's (1981) study, their results are explained in terms of illogical biases occurring in the decision-making phase, which they call the framing effect. Kuhberger's research in 1995, "The Framing of Decisions: A New Look at Old Problems," however, found biases in the decision *presentation* phase of Tversky and Kahneman's studies, and attributes Tversky and Kahneman's results to that. He showed that there was a flaw in the methodology of Tversky and Kahneman's framing

research, in that the decision choices that they presented in the Asian disease scenario were not balanced. Choice A read, “200 people will be saved.” Choice B read, “a 1/3 probability that 600 people will be saved and a 2/3 probability that no people will be saved.” Compared to Choice B, Choice A neglected to say “and 400 people will not be saved.” Likewise, Choice C in the negative frame read, “400 people will die,” but neglected to say, “and 200 people will not die.”

Both of Tversky and Kahneman’s Asian disease decisions, Choices A and B, reflect the usage of the positive word “save.” However, there is a noteworthy difference between Choice A and Choice B. Choice A illustrates only people being saved, which is a clear gain, and therefore positive frame. Choice B illustrates both people being saved and no people being saved, which Kuhberger (1995) points out to be a *mixed frame* and not a positive frame, because there is both a gain and a loss involved. This idea would be in agreement with Tversky and Kahneman’s definition of framing to be “phrasing outcomes as though they are gains or losses.” However, the usage of the words “save” in Choice B, as well as in Choice A, makes these manipulations fall under what Kuhberger calls the Gains domain.

Kuhberger defines domains to be the use of negative or positive sounding words (and their negations). Any phrase with the word “save,” including “not saved,” are in the Gains domain. Any phrase with the word “die,” including “not die,” are in the Losses domain (see Table 1). Hence, both Choices A and B are in the Gains domain, and Choices C and D are in the Losses Domain. Note that what Tversky and Kahneman called frame is domain to Kuhberger. In this light, Tversky and

Table 1

Asian Disease problem statements in Tversky and Kahneman's study versus
Kuhberger's study

Statement	Domain	Frame
Tversky and Kahneman:		
A. 200 will be saved	Gains	Positive
B. 1/3 chance that 600 will be saved and 2/3 chance that 0 will be saved	Gains	Mixed
C. 400 will die	Losses	Negative
D. 1/3 chance that 0 will die and 2/3 chance that 600 will die	Losses	Mixed
Kuhberger:		
A. 200 will be saved and 400 will not be saved	Gains	Mixed
B. 1/3 chance that 600 will be saved and 2/3 chance that 0 will be saved	Gains	Mixed
C. 400 will die and 200 will not die	Losses	Mixed
D. 1/3 chance that 0 will die and 2/3 chance that 600 will die	Losses	Mixed

Kahneman's experiment did not test a framing effect, because Choices A and B are not balanced in framing, and Choices C and D are not balanced in framing.

Kuhberger's research in 1995 claims that Tversky and Kahneman's original framing problems do not truly test the framing effect, but rather the reflection effect, which is simply the tendency for people to choose sure positive outcomes in a decision between a certain gain and a possibility of a gain of the same magnitude, and avoid sure negative outcomes in a decision between a *certain* loss and a *possibility* of a loss of the same magnitude. The reflection effect makes common sense, in that we inherently prefer to increase our chances for gains and prefer to avoid the possibilities of losses. The reflection effect is a straightforward inherent behavior that is not affected by word framing or any manipulation.

Going back to the Asian Disease experiment, Kuhberger says that the incompleteness of Choice A and Choice C (when compared to Choice B and D), is an unintentional manipulation that leads to a change in reference point for the decision maker, such that the decision for Version 1 becomes one between a positive frame (Choice A) and a mixed frame (Choice B), in the domain of gains. For Version 2, the decision becomes one between a negative frame (Choice C) and a mixed frame (Choice D), in the domain of losses. Under these circumstances, the reflection effect occurs. In Version 1, people would naturally prefer a positive frame (Choice A, which illustrates a sure gain) to a mixed frame (Choice B, which illustrate only a possibility of a gain). In Version 2, people would naturally want to avoid a sure loss (Choice C), given the choice between that and a mixed frame (Choice D, which illustrate a possibility of a

loss). Kuhberger thinks that Tversky and Kahneman misinterpreted their results to indicate a framing effect, when their results in fact show a reflection effect.

Kuhberger points out that this methodology without a counterbalance between Choice A and Choice B, and a counterbalance between Choice C and Choice D, makes Tversky and Kahneman's results invalid in regards to claiming a framing effect.

Kuhberger's 1995 experiment sought to counterbalance Choice A with Choice B, and Choice C with Choice D. Choice A read, "200 people will be saved and 400 people will not be saved." Choice B remains the same from Tversky and Kahneman's study. Choice C read, "400 people will die and 200 people will not die." Choice D remains the same from Tversky and Kahneman's study. His experiment kept frame constant ("mixed"), while varying the domain (which Tversky and Kahneman called "frame"). Results from his experiment show that people did not have a preference for Choice A over Choice B, nor for Choice D over Choice C. In effect, his study confirmed his hypothesis that there is no domain effect (framing effect according to Tversky and Kahneman).

Application of the framing effect to practical work decisions

Past studies in the area of the framing effect lack application to real life in that experimental designs were typically based on hypothetical disaster scenarios and not practical day-to-day situations. More studies with practical real-life scenarios need to be conducted to help bridge the gap between science and application, to increase the

external validity of these studies. There was one study by Huber, Neale, and Northcraft (1987) that explored the framing effect using an experimental design with a real-life work scenario.

Huber et al.'s (1987) research studied framing in a personnel selection simulation. They created two conditions, one that asked participants to review candidates' application files and to list the candidates whom they would "accept" for interviews. This was their positive condition. In their negative condition, they asked participants to list the candidates they would "reject." Cost was made salient by explaining to participants that it cost approximately \$300 to interview each candidate after selections are made. Huber et al. defined risk-taking to be the selection of more applicants to be interviewed, as this increases cost to the hiring company with no sure gain. Their results showed that in the positive frame, "accept" condition, participants selected less applicants to be interviewed than in the negative frame, "reject" condition. This finding was consistent with Tversky and Kahneman's framing effect.

The weakness of Huber et al.'s study, as with Tversky and Kahneman's Asian Disease study, according to Kuhberger, was that it did not ensure that the conditions were counterbalanced. Their cost (risk) manipulation contained wording that were opposite in framing (domain) from their main framing manipulation. In their "accept" condition, they told participants "for each candidate interviewed, the company would incur a *cost* of \$300." Meanwhile, their "reject" condition explains to participants the "*savings*" associated with each candidate they reject. This may have confounded what they were controlling for. Instead, they could have used both negative (cost) and

positive (save) words for both conditions. Huber et al also did not ask participants to note which candidates they do “not accept” for their positive condition, and which candidates they do “not reject” for their negative condition.

Evaluation of past findings and current study

Although prospect theory is still robust today, the framing effect is in question. The framing effect, perhaps due to the lack of clarification and distinction from the reflection effect had confused the interpretations of past findings. For this reason, further investigation is needed to uncover whether or not there is a framing effect.

Since Kuhberger’s findings are relatively recent and there have not been any attempts to replicate them, there is a need for that. In attempting to replicate Kuhberger’s findings, it is necessary to fully describe decision choices and make sure that there are no inherent biases in the construct of the presentation of decision choices.

This study explores whether an experimental design that fully describes decision scenarios in a balanced manner would result in a decision-making pattern that discounts Tversky and Kahneman’s framing effect. It is hypothesized in this study that in light of Kuhberger’s findings, an experiment employing a real-life employment scenario would not show a framing effect (domain effect according to Kuhberger) if the directions given to participants were fully described without missing information.

Method

Participants

The experiment consisted of 48 participants: 34 female (71%), and 14 male (29%), undergraduate college students. The age of the participants ranged from 18 to 50, with the mean age of 22. Kuhberger (1998) stated that students and “target populations” or experts in framing effect studies do not differ in their receptivity to the framing effect, therefore the usage of student participants should not effect the external validity of the findings in this experiment. Each student received class credit for his/her participation, as well as a one-dollar lottery ticket.

Materials

The experimental instrument consisted of a section that asked for participants’ background, a section on directions for the experiment, a section on the job description for the Marketing Administrative Assistant position for which they were recruiting for, and 16 pages of resumes.

Manipulation

There were two versions of directions for the experiment, one using the word “accept,” (positive condition) and one using the word “reject” (negative condition). This is the main and only manipulation in this study. The positive condition reads:

Dear Participants,

Imagine that you are a Human Resources manager at a small hi-tech company in the Silicon Valley. Your task is to take the next

step in filling a “Marketing Administrative Assistant” position. You already posted the job opening on your company web page, and you received many responses. The resumes in back are those that meet the minimal basic skills requirements for this position. Your next step is to select from the resumes which job applicant(s) you will **accept** and which applicant(s) you will **not accept** for an interview.

Based upon the cost figures provided by management, it requires considerable managerial and support time to interview and select job applicants. For each candidate accepted, it would cost the company \$600. For each candidate not accepted, it would **save** the company \$600. While it is important for you to select high-quality candidates, it is also important that cost be contained.

Put an “A” for “Accept” on the upper right-hand corner of the resumes that you would accept for an interview.

Put an “NA” for “Not Accept” on the upper right-hand corner of the resumes that you would not accept for an interview.

The first paragraph of negative condition was identical to the accept condition. The second paragraph read:

Based upon the cost figures provided by management, it requires considerable managerial and support time to interview and select job applicants. For each candidate rejected, it would

save the company \$600. For each candidate not rejected, it would cost the company \$600. While it is important for you to select high-quality candidates, it is also important that cost be contained.

Put an “R” for “Reject” on the upper right-hand corner of the resumes that you would reject for an interview.

Put an “NR” for “Not Reject” on the upper right-hand corner of the resumes that you would not reject for an interview.

The job description page included the job title, salary range for that job, a list of responsibilities associated with the position, who the position reports to, and a list of basic skills that are required for the job. The job description used was an actual requisition that has been simplified for easier reading comprehension. The Marketing Administrative Assistant position does not call for specialized skills that would make it difficult for participants to identify in resumes. The resumes used were actual resumes that have been simplified and made anonymous.

Procedure

Distribution of the experimental packages (two test conditions) was randomly done. Twenty-three of the participants were given the “Positive Frame” (“Positive Domain” according to Kuhberger) directions, and 25 were given the “Negative Frame” (“Negative Domain” according to Kuhberger) directions. Everyone received the same 16 resumes to make decisions on. The investigator verbally explained to participants

to complete the background information page, and proceed to read the instructions page and complete the experiment within 30 minutes.

Results

The mean number of applicants accepted and standard deviation for the positive condition were 8.04 and 3.21. The mean number of applicants accepted (framed “not rejected”) and standard deviation for the negative condition were 7.61 and 2.61 (see Table 2).

The hypothesis predicted that there would be no difference in the number of applicants “accepted” for the positive condition and the number of applicants “not rejected” for the negative condition, opposing predictions made by Tversky and Kahneman’s framing effect. As shown by the one-way analysis of variance reported in Table 3, there was no effect for framing, $F(1, 46) = 0.76, p = 0.39$. There was no significant difference between the numbers of applicants accepted for the positive condition versus the negative condition. In fact, the direction of the results were opposite from the direction that the framing effect predicted for (see Table 3).

Table 2

Means and standard deviations of number of applicants accepted for the positive and negative conditions

Condition	Mean (Standard Deviation)
Positive Domain ("Positive Frame" according to Tversky and Kahneman)	8.04 (3.21)
Negative Domain ("Negative Frame" according to Tversky and Kahneman)	7.61 (2.61)

Table 3

Analysis of variance for applicants accepted versus applicants not rejected

Source	SS	df	MS	F	P-value
Domain Effect (Framing Effect according to Tversky & Kahneman)	2.23	1	2.23	.76	.39
Error	134.44	46	2.92		
Total	136.67	47			

Discussion

The results of this study support the expected outcomes of the experiment. There was no difference in the number of candidates that participants chose to interview in the two conditions. This result could imply that there is no difference in risk preference when a scenario is phrased using positive words, versus with negative words. The findings confirm Kuhberger's results and help to support his argument that Tversky and Kahneman's Asian Disease study does not prove a framing effect.

Does presentation of a scenario influence decisions made on the scenario?

We see time and again on television and in the news, reporting of how lawyers good at their trade get criminals off the hook by being good presenters, good manipulations of "truths." It is common intuitive knowledge that presentation of a scenario does influence decisions made on the scenario. As scientists seeking "truths," we study *how* the manipulation or the construct of misleading presentation is done. Tversky and Kahneman are the first scientists to formally look at this, and to come up with an encompassing theoretical framework to explain human perception, cognition, motivation, and decision-making. Their impressive work lays a foundation, a language and stringboard, for other researchers to discuss and uncover how presentations leads to decisions.

How does the construct of presentation effect decisions?

Perhaps Tversky and Kahneman intuitively know, as we all do, that constructing a scenario using positive words versus negative words causes a different perception of this scenario, and in their 1981 research attempted to formally explain this. They conceptualized and labeled scenarios using positive words as *positive frames*, and scenarios using negative words as *negative frames*. Subsequently, Kuhberger (1995) reviewed studies on framing and conceptualized that scenarios contain not only *frames* but also *domains* in terms of gains and losses. He argued that because Tversky and Kahneman had not made that distinction, they were not aware that their decision scenarios were not balanced, which lead to their erroneous conclusion on *framing*.

Due to Kuhberger's insight, we can break down the construct of a decision scenario into smaller elements that contain domains and frames. Findings from this study show that differences in domain (mixed frames in the gains domain versus mixed frame in the losses domain) do not produce different decisions. This tells us that using positive versus negative words *alone* is not enough to create a presentation or manipulate a scenario to result in a set of predictable different decision choices as Tversky and Kahneman's 1981 implication suggests. Saying 200 people (out of 600 people) will be saved is no different from saying 400 people (out of 600 people) will die. Using positive versus negative words alone does not affect the meaning of a scenario.

So what construct in scenario presentation does affect decision-making? From Tversky and Kahneman's robust findings, it appears that a scenario construct that contains two choices, one choice of which deliberately withholds information or neglects to fully describe the entire reality or truth, and the other choice that presents a fuller picture, is an effective manipulation that leads to different decisions made about the scenario. This scenario construct causes the decision-maker to view the choices to contain different perceptual values in relation to risk-taking.

Kuhberger hypothesizes that Tversky and Kahneman's results could be explained by cognitive model called the Probabilistic Mental Model (PMM), (Kuhberger, 1995). PMM assumes that in decision-making, people construct a problem context for the relevant problem, which for the Asian Disease problem could be "programs for fighting disasters." An essential element for this problem context is *time*. Experience tells us that fighting disasters take time. As time goes by, things change. After an initial number of people being saved (as in Choice A) or being killed (as in Choice C), additional number of people could be saved (for Choice A) or killed (for Choice C) in the following days. The crucial difference in Choice A and Choice B lies in the possibility that such an additional gain can happen for Choice A. Therefore Choice A is preferred over Choice B. The difference that people infer for Choice C from Choice D is that an additional loss could happen in Choice C, and so people prefer Choice D. Kuhberger's fully described Choice A and Choice C do not allow for the possibility of additional saving or losing of lives.

Strengths and limitations of this study, and suggestions for future research

The strengths of this study is largely in the confirmation of and support in taking the direction of future framing studies to be examined under closer scrutiny in the construct of decision scenarios. The use of a student population for this research is not a weakness in external validity, as Kuhberger's meta-analysis (1998) had found that there is no difference in results in past framing studies between a student population and a random population.

Unfortunately, using a real-life human resources decision scenario in this study inherently limits the internal validity of the "risk" construct. The risk manipulation was defined by the amount of money (more versus less) the decision-maker spends on interviews. Perhaps the construct of the experiment should have been constructed in such a way that makes risk more quantifiable, as in the Asian Disease studies, e.g., indicating to participants that choosing five candidates to interview would lead to a 1/3 chance of a successful hire, while choosing 10 candidates to be interviewed would lead to a 2/3 chance of a successful hire. What could be improved, additionally, is making the risk (amount of money to be spent) more salient than it had been. Perhaps participants could have been asked to calculate total amount to be spent on interviews in an indicated space, while providing them with a list of benchmarked averages of interviewing costs spent by other recruiters and companies.

Two other weaknesses of this study are: the small sample size, and the fact that the hypothesis was not set up to reject the null hypothesis. This means that results do

not confirm the absence of a framing effect, but rather suggest the absence of such an effect. Without rejecting the null hypothesis, there is a possibility that findings could have resulted from methodological errors.

While Tversky and Kahneman's and Kuhberger's contribution to this area of study has been immense, much continual research is still needed to identify all the elements or components of a presentation construct that cause people to be manipulated by logic and therefore make biased decisions in life. This area of research is relatively unmined, and so from here researchers can go a number of ways to make contributions to it. One possible route would be to look at the "time" factor of the Probabilistic Mental Model and how it relates to prospect theory. Another route would be to research Tversky and Kahneman's framing taking what we have learned from Kuhberger on counterbalancing frames and domains to other scenario constructs. We are a long way from a unified decision-making theory that accounts for the numerous unpredictable factors in every day life that influence how we mentally, emotionally, and/or spiritually process decisions, but every step takes us closer to it.

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