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Original Paper

Chance as a Scapegoat: Seeking Uncertainty to Avoid Responsibility and Blame

Chuyin Xie & Hong Lu

Guangdong Women's Polytechnic, China

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Abstract

Riskier for me or for others? This question has been asked by researchers in different fields, which has generated kinds of research accounts and results. In this study, we extended previous research by studying the self-other uncertainty preference under ambiguous situations (unknown probabilities). Through five experiments we verified our main hypothesis that individuals may want to lessen their responsibility by seeking uncertainty when making decisions for others. Our results provide a behavioral explanation that extrinsic others-concern motivation (i.e., blame avoidance) instead of intrinsic others-concern motivation (i.e., self-blame aversion) and regulatory focus is the underlying process of self-other decision-making under ambiguity.

Keywords

decision-making, self-other, responsibility, ambiguity

1. Introduction

Researchers distinguish two types of uncertainty to understand decision-making: risk and ambiguity. Potential outcomes and probabilities of certain outcomes can be estimated when people make choices under risk (e.g., Asian disease problem). Differences between making decisions for oneself and others under risk have been well discussed. Some studies hold the view that people show more uncertainty-seeking behavior when they make choices for others instead of themselves, implying that when people make decisions on behalf of others, they choose riskier choices (Batteux, Ferguson, & Tunney, 2017; Leonhardt, Keller, & Pechmann, 2011; Sun, Liu, Zhang, & Lu, 2017; Ziegler & Tunney, 2015). However, some studies have reached the opposite conclusion (Petrova et al., 2016; Pahlke, Strasser, & Vieider, 2015). However, in our daily lives, people often make choices under ambiguous situations where the probabilities of the potential outcomes cannot be predicted (e.g., buying decisions).

With the rapid development of shopping agencies, people often make buying decisions for themselves

and others (Lu & Xie, 2019). Decision-making process may differ when individuals make choices regarding themselves and others (Dunn, Aknin, & Norton, 2008; Polman, 2012). A recent study investigated consumers' uncertainty-seeking behavior using large data set of online food delivery purchases and found that consumers often order food from newly opened restaurants or restaurants from which they have never placed an order before (Schulz et al., 2019). Consumers typically engage in uncertainty-directed exploration. However, self-other behavioral differences in decision-making under ambiguous situations remain unclear. Therefore, this study extends previous research by studying the self-other uncertainty preference under ambiguity.

2. Why is Making Individual Decision Different from Making Decision for Others

2.1 Regulatory Focus Theory

Based on the motivation perspective, regulatory focus theory identifies two different motivational orientations that individuals adopt in the process of decision making. Individuals with a promotion focus are sensitive to gains and desire advancement and growth, whereas individuals with a prevention focus are sensitive to losses or negative outcomes and desire stability (Polman, 2012a; Crowe & Higgins, 1997; Higgins, 2000; Lockwood, Jordan, & Kunda, 2002). Previous studies have found that changes in psychological distance can cause shifts in regulatory focus (Pennington & Roese, 2003; Polman, 2012a; Polman, 2012b).

Beisswanger and his colleagues (2003) found that people tend to choose riskier options (e.g., go to a blind date) when making decisions on behalf of others, and they also give more positive reasons for their choices. In contrast, people tend to give more negative reasons for individual choices, which to some degree demonstrates that people are sensitive to losses when making decisions for themselves.

2.2 Responsibility Aversion

Responsibility aversion, as an interpersonal phenomenon, might be related to social preferences, that is, a concern for others' payoffs (Edelson et al., 2018). When making decisions in a negative context for others, responsibility increases the decision makers' exposure to the risk of the negative outcomes. Therefore, individuals may want to lessen their responsibility for the decision. In other words, individuals are sensitive to the presence or absence of negative outcomes when making choices for others. For example, Steffel and his colleagues (2016, 2018) found that people are more likely to lessen their responsibility when choosing for others by delegation in a negative context. Delegating choices to others may also be a common way for individuals to avoid assuming responsibility (Steffel et al., 2016; Steffel et al., 2018). Besides, Leonhardt and his colleagues (2011) found that people may avoid taking responsibility by seeking uncertainty. In other words, uncertain potions provide a way to avoid responsibility by offering outcomes partially determined by chance (Leonhardt et al., 2011). To sum up, decision-makers may lessen the risk of taking responsibility for decisions by choosing uncertain options (Leonhardt et al., 2011), delegating choices to others (Steffel et al., 2016; Steffel et al., 2018), and decision avoidance (Anderson, 2003).

However, consumers prefer free choice of goods. That is to say, consumers always want to maintain control over their own outcomes when making buying decision. Thus, the ways to avoid assuming responsibility like delegation and decision avoidance may not be adopted by consumers.

2.3 Extrinsic and Intrinsic Others-concern Motivation

People who want to avoid assuming responsibility may be driven by two motivations. When people are often concerned about whether they will be blamed or praised, they desire to protect their self-image, which can be referred to as extrinsic others-concern motivation (Wang et al., 2018). Therefore, by comparing people's performance under anonymity and non-anonymity conditions, we can know whether or not people's decision-making is driven by extrinsic others-concern motivation. When people care about their own feelings, such as guilt and self-blame, which are not related to public exposure, they are driven by intrinsic others-concern motivation when making decisions. Previous studies have found that people tend to avoid these negative feelings by transferring responsibility from themselves to a third party (Steffel et al., 2016).

However, the contributing roles of self-blame aversion and blame avoidance in self-other decision-making remain unclear.

3. Overview of the Studies

In this study, we wish to identify self-other differences in decision-making under ambiguous situations (i.e. buying scenarios). We propose that people's motives to avoid assuming responsibility when making decisions for others drive them to display uncertainty-seeking behavior. Specifically, we believe that extrinsic others-concern motivation can be a mechanistic explanation for self-other differences in decision-making under ambiguity.

We tested our main hypothesis that individuals may want to lessen their responsibility by seeking uncertainty when they make decisions for others through five experiments. In Study 1, we utilized a gambling task to investigate self-other differences of uncertainty seeking behavior in decision-making under risk. What's more, we manipulated the probability information to further examine people's preference toward uncertainty under ambiguous situations. In Study 2, three laboratory experiments were conducted to replicate the findings of Study 1 and to test the mediating effect of situational regulatory focus as well as intrinsic and extrinsic others-concern motivation in self-other difference of uncertainty-seeking behavior. Furthermore, we also manipulated the *anonymity* to investigate the contributing roles of self-blame aversion (intrinsic others-concern motivation) and blame avoidance (extrinsic others-concern motivation) in self- other decision-making process.

4. Study 1

Study 1 is a confirmatory study consisting of two experiments that aimed to examine self-other differences in decision-making, especially the difference in uncertain- seeking tendency.

4.1 Experiment 1 Self-other Decision-making Difference under Risk and Ambiguity

4.1.1 Participants

A total of 64 participants (*Mage*=19.23, *SD*=1.11; 82.81% females) took part in the experiment in exchange for payment or credit. All participants in this and the following studies signed a written consent form approved by ethics committee.

4.1.2 Design and Procedure

Participants were initially divided into two groups (*self*-condition; *other*-condition). Concretely speaking, in the *self* condition, individuals needed to make choices for themselves, whereas in the *other* condition participants were asked to make decisions for others. Each participant completed a gambling task. In this task, participants were required to decide whether to accept or reject a gamble that involved probabilities of gains and losses (see Figure 1). Specifically, two uncertainty conditions (*risk*-condition and *ambiguity*-condition) were added to the task for each participant. In the risk condition, participants could clearly see the probabilities of gains and losses (green slices for wins and red slices for losses). In the ambiguity condition, we manipulated the probability information so that 50% of the circle was under the gray cover and unknown to the participants. Under the gray cover, there can be any mix of green or red sections. The task was composed of 20 trials (i.e., 10 trials of *risk*-condition and 10 trials of *ambiguity*-condition). Among 10 trials of *ambiguity*-condition, there are 6 trials of gamble with a 0.5 outcome probability; correspondingly, there are also 6 trials of gamble with 0.5 gain-loss probability under *risk*-condition (see Figure 2). No feedback was provided after each choice.

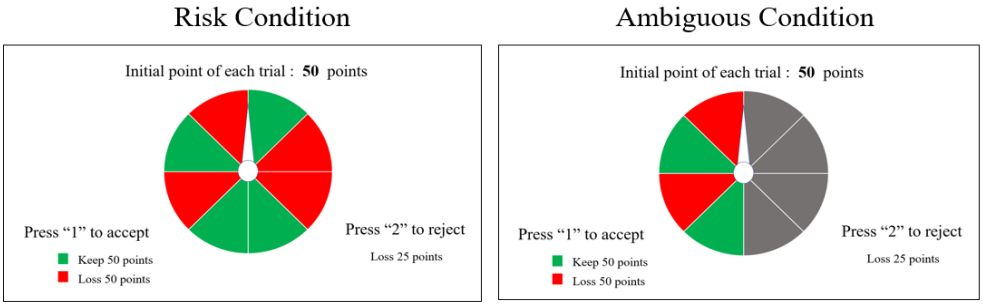

Figure 1. Gambling Task in Experiment 1

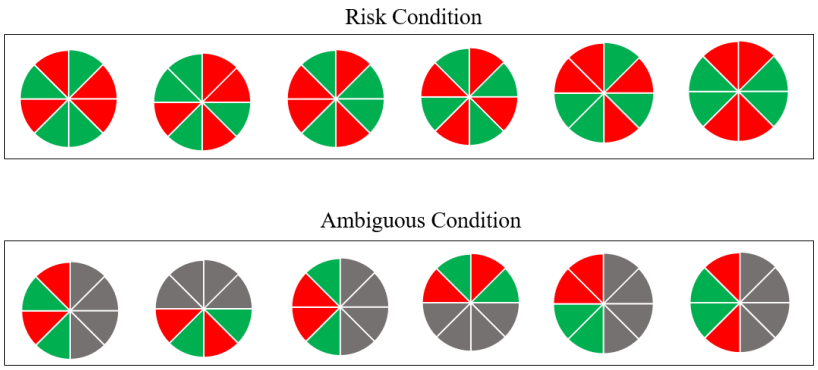

Figure 2. Gambling Task with a 0.5 Outcome Probability under Risk and Ambiguous Condition

4.1.3 Results and Discussion

We performed an analysis of repeated-measures ANOVA with target (*self*-condition; *other*-condition) and uncertainty type (*risk*-condition and *ambiguity*-condition). Specifically, our analysis only included the trials of gambling task with a 0.5 outcome probability, for the neural gain-loss probability, in the true sense, created ambiguity. First of all, ANOVA revealed a main effect of target ($F(1,62)=5.653$, $p<0.05$, $\eta_p^2=0.084$), indicating that participants accepted the gamble more frequently when making choices for others. Besides, this analysis also revealed a main effect of uncertainty type ($F(1,62)=24.31$, $p<0.001$, $\eta_p^2=0.282$), showing that participants were less likely to accept the gamble in ambiguity-condition. Most importantly, there was a significant interaction between the target and uncertainty type ($F(1,62)=5.30$, $p<0.05$, $\eta_p^2=0.079$). Therefore, we conducted an analysis of simple effect.

Previous study found that individuals preferred the uncertain (risky) option to a large degree in the *other* versus *self* conditions (Leonhardt et al., 2011). However, we did not find this to be the case under risk condition ($F(1,62)=0.449$, $p=0.505$, $\eta_p^2=0.007$). We only found a significant difference under ambiguity condition ($F(1,62)=8.176$, $p<0.05$, $\eta_p^2=0.117$). People often make decisions in situations where the probabilities of each potential outcome cannot be predicted in daily life. Therefore, we designed Experiment 2 to further investigate the self-other difference in ambiguous buying decision making.

4.2 Experiment 2 Self-other Decision-making Difference under Ambiguous Buying Scenarios

4.2.1 Participants

A total of 249 participants took part in the online survey in exchange for payment from Wenjuanxing (https://www.wjx.cn/), a crowdsourcing platform similar to the Amazon Mechanical Turk. However, 12 participants were excluded from the analysis due to their perfunctory answers. A total of 237 participants (21.28% male) ranging from 14 to 27 years old participated in the study ($Mean_{age}$ = 20.80, SD = 1.98).

4.2.2 Design and Procedure

Participants were also initially divided into two groups (*self*-condition; *other*-condition). Each participant completed a “gambling task” related to consumption. In this task, participants decided whether to accept or reject a gamble that involved probabilities of gains and losses under buying scenarios (e.g. deciding to buy a phone). Each participant rated both choice options using a ratio scale with the following endpoints: 0% means do not want to act at all to 100% want to act very much. We term the preference for act as an uncertainty-seeking preference. Two uncertainty conditions (*risk*-condition and *ambiguity*-condition) were also added to the task for each participant and the task was composed of 2 scenarios (i.e., a buying scenario under risk-condition and another under ambiguity-condition).

4.2.3 Results and Discussion

An analysis of repeated-measures ANOVA with target (*self*-condition; *other*-condition) and uncertainty type (*risk*-condition and *ambiguity*-condition) was adopted. Main effect of target ($F(1,235)=5.715$, $p<0.05$, $\eta_p^2=0.024$) and uncertainty type ($F(1,235)=6.865$, $p<0.05$, $\eta_p^2=0.028$) were significant. Then, an analysis of simple effect revealed a significant self-other difference under ambiguity condition ($F(1,235)=3.971$, $p<0.05$, $\eta_p^2=0.017$). As predicted, participants were more likely to accept this

uncertain gamble when making choices for others (*M*=37.04%, *SD*=1.53) than when choosing for themselves (*M*=32.75%, *SD*=1.52) under ambiguity-condition.

There are two possible explanations in which the difference of self-other decision-making under ambiguity may be explained. For one thing, psychological distance can cause shifts in regulatory focus (Pennington & Roese, 2003) and making decision for others increases the psychological distance one feels from others (Polman & Emich, 2011). When people make choices for others, they have low anticipation of negative outcomes. Therefore, when people make choices on behalf of others, they may show a greater uncertainty-seeking preference for those in a promotion focus. For another, Nordbye and his colleagues (2018) found that only when the outcome brought by the risky options are unforeseeable can participants lessen their responsibility for the outcome. That is to say, the unclear probability information provides an opportunity for people to pass the buck to uncertainty. The uncertainty-seeking behavior is driven by intrinsic or extrinsic others-concern motivation. Therefore, we designed Study 2 to further verify these two explanations.

5. Study 2

Three laboratory experiments were conducted to replicate Study 1 findings as well as to test the mediating effect of situational regulatory focus as well as intrinsic and extrinsic others-concern motivation in self-other difference of uncertainty-seeking behavior.

5.1 Experiment 3 Can Situational Regulatory Focus and Responsibility Aversion Explain the Self-other Difference of Uncertainty-seeking Behavior

5.1.1 Participants

A total of 71 university students (*Mage*=20.44, *SD*=1.99; 77.57% females) were recruited.

5.1.2 Design and Procedure

The procedure was identical to that of Experiment 2, except for the *risk*-condition was excluded, and participants finished the task under *ambiguity*-condition. Besides, in *other* condition participants were told that they would make choices for others who would know that participant chosen on their behalf. Moreover, two questions were added at the end of the experiment. After each participant rated both options using 7-likert scale with the following endpoints: 1 means do not want to act at all to 7 want to act very much. One item was designed to measure participants' willingness of taking responsibility: "While making choices, I felt that I should take responsibility for the decision result". The participants indicated their ratings on a 1 (not at all) to 7(very much). Anticipation of a negative outcome is also measured as following: "While making choices, I think it's very possible to result in a negative outcome".

5.1.3 Results and Discussion

In Experiment 3, we found a marginally significant that individuals are more likely to accept gamble option in the *other* versus *self* conditions under ambiguity (*Mother*=3.77, *SD*=0.17, vs. *Mself*=3.32 *SD*=0.16; $F(1, 69)=3.617$, $p=0.061$, $\eta_p^2=0.05$). Besides, there is no significant difference of anticipation of the negative outcome under *other* versus *self* conditions (*Mother*=4.38, *SD*=1.13, vs. *Mself*=4.42

SD=0.92; *t*(69)=0.172, *p*=0.864). That is to say, people hold similar attitude toward negative outcome when they making choice for others and themselves. This result, to some degree, is inconsistent with the previous studies which hold the view that people may show more uncertainty-seeking preference when making choice for others because they in a promotion focus (i.e., hold a more positive attitude toward the outcome). Furthermore, our result also revealed that when making choice on behalf of others, people considered that they should take less responsibility under ambiguity condition (*Mambiguity*=4.76, *SD*=1.22) than risk condition (*Mrisk*=5.33, *SD*=1.04; *t*(69)=2.081, *p*<0.05). In other word, the unclear probability information provides an opportunity for people to lessen their responsibility.

To further investigate the role of regulatory focus, we conducted Experiment 4 to test the mediating effect of situational regulatory focus as well as intrinsic and extrinsic others-concern motivation in self-other difference of uncertainty-seeking behavior.

5.2 Experiment 4 The Mediating Role of Situational Regulatory Focus, Intrinsic and Extrinsic Others-concern Motivation

5.2.1 Participants

Seventy-seven participants (*Mage*=19.5, *SD*=1.14; 54 women and 23 men) took part in the experiment in exchange for payment or credit.

5.2.2 Design and Procedure

The procedure was identical to that of Experiment 1, except for the *risk*-condition was exclude, and participants finished the gambling task under *ambiguity*-condition. What's more, two questions as well as the General Regulatory Focus Measure (GRFM, Lockwood, Jordan, & Kunda, 2002) were added in the experiment. One item was designed to measure participants' extrinsic others-concern motivation: "I felt concerns that I would be blamed if my decision led to a bad outcome". Intrinsic others-concern motivation is also measured as follow: "I felt concerns that I would feel guilty/self-blame if my decision led to a bad outcome". The participants indicated their ratings on a 1 (not at all) to 7(very much). Besides, at the end of the experiment participants should complete the General Regulatory Focus Measure (reliability α=0.82). Given that internal-external control has been found to be correlated with the perception of responsibility (Sosis & Ruth, 1974), we controlled for this variable in the statistical analyses.

5.2.3 Results and Discussion

The results revealed that compared with the *self* condition (*Mself*=59.52%, *SD*=0.28) more participants in the *other* condition accept the gambles (*Mother*=72.22%, *SD*=0.25, *t*(75)=-2.102, *p*=0.039). To test whether the effect of decision target on uncertainty-seeking behavior under ambiguity was mediated by situational regulatory focus**,** intrinsic and extrinsic others-concern motivation, we then conducted three path models of the mediation analyses with situational regulatory focus**,** intrinsic and extrinsic others-concern motivation as mediators in each analysis (see Figure 3). Our analysis revealed a significant indirect path from decision target to blame avoidance (extrinsic others-concern motivation) to uncertainty-seeking behavior under ambiguity-condition, which the indirect effect for blame avoidance (extrinsic others-concern motivation) *ab* = 0.06, 95% CI=[0.01, 0.14] excluded zero, whereas intrinsic

motivation and situational regulatory focus included zero, $ab_{\text{intrinsic motivation}}$= -0.01, 95% CI=[-0.06, 0.03], $ab_{\text{situational regulatory focus}}$ =-0.001, 95% CI=[-0.02, 0.02]. However, the question "I felt concerns that I would be blamed if my decision led to a bad outcome" was somewhat irrelevant in the *self* condition. Therefore, we conducted experiment 5 to better test the impact of the extrinsic and intrinsic others-concern motivation on uncertainty-seeking behavior by manipulating anonymity. If uncertainty-seeking behavior is being driven solely by extrinsic others-concern motivation, then we should expect people to be more likely to accept an uncertain choice when their identities would be known, in other word, not when they would be anonymous. However, if intrinsic others-concern motivation also contributes to this tendency, then participants should be more likely to choose uncertain options when they making decisions for others than when choosing for themselves, even when those affected would not know their identities.

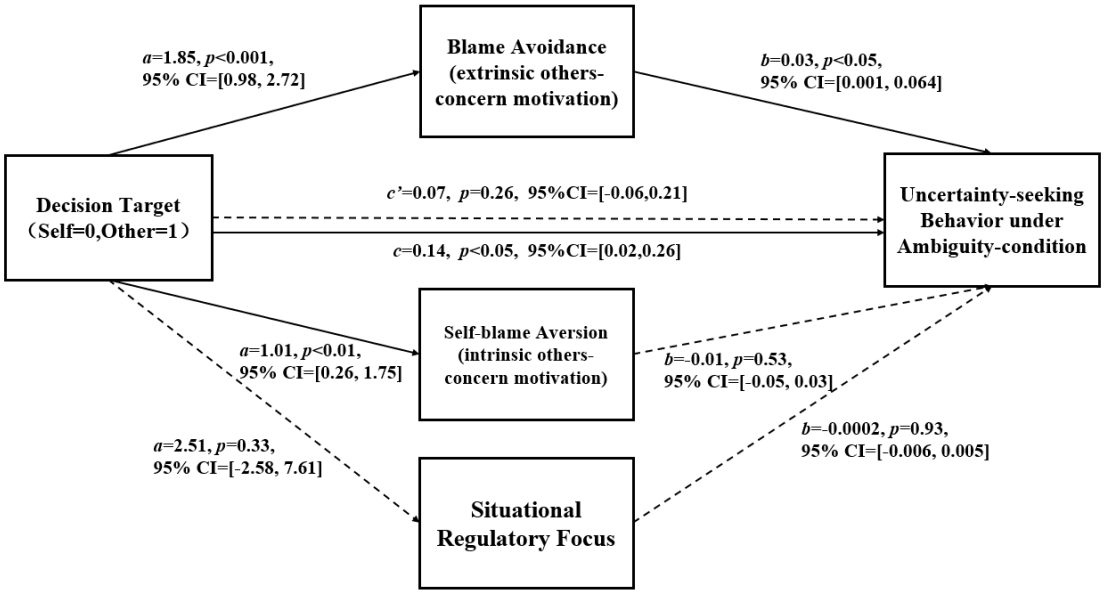

Figure 3. Path Models of the Mediation Analyses Conducted with Blame Avoidance (Extrinsic Others-concern Motivation), Self-blame Aversion (Intrinsic Others-concern Motivation) or Situational Regulatory Focus

5.3 Experiment 5 Choices with or without Anonymity, the Independent Contribution of Extrinsic and Intrinsic Others-concern Motivation

Experiment 5 is a laboratory study in order to isolate the independent contribution of extrinsic and intrinsic others-concern motivation, we manipulated anonymity of participants' identities in *other* groups. If uncertainty-seeking behavior is being driven solely by anticipated blame, then people will be more likely to choose uncertain choices for others than for themselves only when their identities would be known.

5.3.1 Participants

Undergraduates (N=28; *Mage*=18.98, *SD*=1.16; 92.86% females) were recruited from a university in

southern China to participate in the experiment. All participants in this and the following studies signed a written consent form approved by ethics committee. Participants were compensated with 10 yuan or extra course credit.

5.3.2 Design and Procedure

Participants were assigned to imagine that they were making decision for other (*other*-anonymous condition). Except for the manipulation of anonymous, the experiment procedure was identical to that of Experiment 3. Therefore, we compare the result of this experiment with that of Experiment 3.

5.3.3 Results and Discussion

The results demonstrated that there is no significant difference of uncertainty-seeking behavior between *self* and *other* under anonymous condition ($t(63)=0.012$, $p=0.990$). These findings indicated that, when reducing or eliminating people concern of being blame, they show less uncertainty-seeking behavior under ambiguity. Our findings also suggest that uncertainty-seeking behavior is being driven by extrinsic others-concern motivation, for people in anonymous condition were more likely to accept an uncertain choice. Instead, participants were equally likely to seeking uncertainty when they were making choice for themselves and making choices with anonymity for others. That is to say, people wish to avoid blame when they making choice for others. The result of Experiment 5 may in some degree support our findings in Experiment 4.

6. General Discussion

Our results provide a behavioral explanation of the underlying process of self-other decision-making. Concretely speaking, in Study 1 we hadn't found a significant self-other difference of uncertainty-seeking behavior under *risk* condition but a significant difference under *ambiguity* condition. The possible explanation is that only when people have caused the event to happen, been in control of the outcome and able to foresee the consequences can people to be fully responsible for an event. In *risk* condition, the probability information is available for each participant so that they can foresee the consequences and cannot lessen responsibility by choosing uncertain choices. However, in *ambiguity* condition, the uncertain options with unclear probability information provide a way for people to avoid feeling responsible or being blamed. Because only when the outcome brought by the risky options that are unforeseeable can participants lessen their responsibility for the outcome. And the result of Study 2 supports our hypothesis, that is extrinsic others-concern motivation mediated self-other decision-making discrepancies. Specifically, when people making choice under non-anonymous condition, they are more eager to "pass the buck" when they are faced with decisions that may affect others. It demonstrates that people uncertainty-seeking behavior is driven by extrinsic others-concern motivation.

Despite its contributions, the present research has limitations that can seed future investigations. First, the present research only focused on the difference of person decision making for themselves and other. Future research might consider whether and how the social distance influences self-other decision-making. What's more, according to Spencer's study, a better way to test whether extrinsic motivation is

a mediator is to manipulate. Therefore, future research might manipulate people concerns of being blamed by others to further investigate the underlying role of extrinsic motivation.

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