

**Temporal Distance and Choice Reversal:
A Regulatory Focus Perspective**

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SUMMARY

Everyday life predictions and choices often pertain to events that will take place soon or in the distant future. Marketers are eager to understand how consumers evaluate and make decisions concerning immediate versus delayed choice, in particular, how they make trade-offs between desirable and feasible features of products.

The present research applies temporal construal theory to consumer choice of products differing in their desirability and feasibility among near and distant future action alternatives. The role of regulatory focus as a possible explanation for these effects is also examined. Three hypotheses were developed in this connection. Hypothesis 1 stated that temporal perspective can influence consumers' choice of products differing in their feasibility and desirability. Specifically, in immediate choice situations, consumers tend to emphasize feasibility over desirability considerations, and in delayed choice situations, consumers tend to emphasize desirability over feasibility considerations.. Hypothesis 2 stated that regulatory focus mediates the effect of temporal distance on consumer choice. Hypothesis 3 stated that regulatory focus will moderate the effect of temporal perspective on consumer choice.

We conducted four experiments to test these hypotheses. Experiments 1 and 2 measured participants' regulatory focus in forming their decisions, and assessed the predictions made in Hypotheses 1 and 2 regarding the influence of temporal perspective on choice, and the mediating role of regulatory focus. Experiments 3 and 4 manipulated regulatory focus among participants, and tested the predictions of Hypothesis 3 regarding

the moderating role of regulatory focus across immediate and delayed choice situations.

The first two experiments provided convergent evidence that temporal distance influences consumer choice of products differing in their feasibility and desirability, and confirmed the mediating role of regulatory focus in the relationship between temporal perspective and choice.

Experiments 3 and 4 provided evidence that regulatory focus moderates the effect of temporal perspective on consumer choice. Specifically, under immediate choice, decision making was based more on feasibility considerations for the individuals of prevention focus, while promotion-focused individuals were not sensitive enough to issues of feasibility and desirability. In contrast, under delayed choice, decision making was based more on desirability considerations for the individuals of promotion focus, while prevention-focused individuals were not effectively influenced by feasibility versus desirability issues.

The present research enhances the generality of temporal construal theory by applying it to a marketing context, and prompts a new research domain that links regulatory focus theory to temporal construal theory. It also has implications for real-life decision situations in which the available options entail a trade-off between feasibility and desirability.

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CHAPTER 1 INTRODUCTION

1.1 Background

Everyday life predictions and choices often pertain to events that will take place in the near or distant future. One may need to decide either immediately or a long time in advance which product to purchase. Marketers are eager to understand how consumers evaluate and make decisions concerning immediate versus delayed choice, in particular, how they make trade-offs between desirable and feasible features of products (Trope and Liberman, 1998, 2000).

For example, in deciding which shop to buy a cake for a party to be held at one's house, one might consider the reputation and service quality of the cake shop (desirability) as well as the accessibility and transportation convenience of the cake shop (feasibility). Does the fact that the party is about to take place immediately or with a time delay influence consumer considerations? More specifically, do feasibility considerations as compared with desirability considerations play a different role in one's decision depending on whether the activity is immediate as opposed to delayed in time? The present research addresses these questions by investigating the relationship between temporal distance and individual choice.

Researchers in a variety of fields have examined how the value of outcome changes as a function of their temporal distance. The findings of prior research suggest that individuals give higher value to near-future rewards than to distant-future rewards (Read and Loewenstein, 2000), reflecting the time-discounting effect. However, discounting due to temporal distance is not the only outcome that has been observed.

Researchers also have found evidence that the value of outcome is enhanced as temporal distance increases (Lovallo and Kahneman, 2000), reflecting the reversal of time-discounting effect. Even though there are different conceptualizations with respect to time perspective, there is consensus that the value of outcome may change as a function of temporal distance.

1.2 Research Objectives

Time-dependent changes in preferences have been studied quite widely in psychology from the perspective of psychological learning theory (Ainslie, 1975; Ainslie and Haslam, 1992; Read and Loewenstein, 2000), delayed gratification (Mischel, 1974; Mischel, Gruesec and Masters, 1969), and self-control (Baumeister and Heatherton, 1996; Rachlin, 1995). However, decisions are rarely examined as individuals were not required to make a decision in previous studies or research (Trope and Liberman, 2003). For example, time-dependent changes in consumer choice are less frequently examined, particularly in a marketing context. Hence, one objective of the present research is to examine time-dependent changes in decision making by explicitly investigating the relationship between temporal distance and consumer choice.

Trope and Liberman (2003) examined the relationship between temporal distance and level of construal, which is defined as the level of abstraction at which goal-directed actions are represented in the cognitive hierarchy. This construct suggests that how people construe a future action in terms of its abstract or concrete features depends on its distance in time---- the further away it is, the more we think about it in

abstract terms. Additionally, Trope and Liberman (2003) argue that feasibility versus desirability is an important dimension of level of construal. Distant choices can cause people to focus on the desirability of an outcome while neglecting its feasibility. Desirability refers to the potential benefits that a product can provide the consumer, i.e. the end state. Feasibility refers to the time and effort taken to obtain a product, i.e. the ease or difficulty of reaching the end state. For example, desirability concerns the value of getting a job offer, and feasibility concerns the time and effort one has to invest to get the job offer. Therefore, we postulate that temporal perspective will influence consumers' choices when exposed to product options differing in their feasibility and desirability.

On the other hand, an interesting question remains in literature, namely, what is the mechanism underlying why people use higher level construals (desirability) for the distant future and lower level construals (feasibility) for the immediate future? One possible theoretical explanation can be found in regulatory focus theory (Higgins, 1998), which delineates how people engage in self-regulation or the process of bringing themselves into alignment with their standards and goals. At any given point in time, people may engage in self-regulation with a promotion focus or a prevention focus. When promotion-focused, people tend to seek accomplishment and growth. When prevention-focused, people are prone to security and safety. Pennington and Roese (2003) found that changes in temporal perspective (whether objectively or subjectively) alter the self-regulatory strategies individual adopt during goal pursuit, that is, greater temporal distance increases the impact of promotion over prevention focus. Keller, Lee,

and Sternthal (2004) found that distinct regulatory focus is associated with different levels of construal. Specifically, promotion focus is associated with high-level construals, and prevention focus is associated with low-level construals. Desirability and feasibility constitute high- and low-level construals respectively, it is thus deduced that promotion focus is oriented toward desirability, and prevention focus is oriented toward feasibility. In view of the relationship between temporal distance and regulatory focus, and the association between regulatory focus and construal level, we predict that regulatory focus not only acts as the mechanism underlying the relationship between temporal distance and consumer choice, but also moderates the effects of temporal distance on consumer choice.

In short, the present research applies temporal construal theory to individual choice among options differing in feasibility and desirability between near and distant future action alternatives in marketing. Simultaneously, the mediating role of regulatory focus in the influence of temporal distance on consumer choice is investigated. Moreover, how regulatory focus moderates the effect of temporal distance on consumer choice is examined.

1.3 Organization

In the remainder of this paper, we first develop theory that explores the linkages between temporal construal theory and regulatory focus theory, and investigate how they interact to influence consumer choice. We then present four experiments that test our hypotheses. We close by discussing the implications of this work and suggesting possible future research direction.

CHAPTER 2 THEORY

2.1 Temporal Construal

2.1.1 Temporal Construal Theory

Construal level theory (Liberman and Trope, 2003) proposes that the same information is construed at a higher level when the information pertains to distant-future events than when it pertains to near-future events. The greater the temporal distance from a future event, the more likely is the event to be represented abstractly in terms of a few general features that convey the perceived essence of the events rather than in terms of concrete and more incidental details of the events. Distant-future activities are described in terms of superordinate goals, whereas near-future activities are described in terms of subordinate goals.

Similarly, goal-directed actions may be construed in terms of goals at different levels of abstractness (Rumelhart, 1977; Abelson, 1981; Zacks and Tversky, 2001). Vallacher and Wegner's (1987) action identification theory specifically suggests that actions may be represented in terms of superordinate or subordinate goals. According to this theory, the former type of goals has to do with relatively abstract "why" aspects of an action, and the latter type of goals has to do with more specific "how" details of the action. High-level construals are therefore likely to include action identifications at the superordinate, why level rather than the subordinate, how level. Properties of end state are likely to be part of high-level construals, whereas properties of means to the end are likely to be part of low-level construals (Liberman and Trope, 1998).

Temporal construal theory (TCT) suggests that people construe different representations of the same information depending on whether the information pertains to the near or distant future (Liberman and Trope, 2003). Specifically, people use high-level construals to represent information about distant-future events and low-level construals to represent information about events occurring in the near future. For example, the activity of “reading” is described as “following lines of print” in the near future, whereas it is described as “gaining knowledge” in the distant future; while “locking a door” is construed as “putting a key in the lock” in the near future, whereas it is “securing the house” in the distant future. High-level construals consist of relatively superordinate, general, and essential features of events. A defining characteristic of high-level construal features is that changes in these features produce major changes in the meaning of the event. Low-level construals tend to be more concrete, specific, and include contextual, incidental features of events. Changes in these features produce relatively minor changes in the meaning of the event.

Temporal construal theory can be used to explain changes in value over time. It has been attested that individuals tend to construe events of distant future with higher-level features, while near future events are construed of lower-level features. Therefore, high-level features of an event tend to be more salient in distant future, and the value associated with high-level features should be higher in construals of distant future events than in those of near future events. In contrast, low-level features of an event are more salient in near future, and the value associated with low-level features should be higher in construals of near future events than in those of distant future

events. It then follows that, over time, the value associated with low-level construals will be discounted, while the value associated with high-level construals will be augmented.

Both low-level and high-level features of the construal may have either positive or negative value. Temporal construal theory predicts that the value of an event will become more positive (negative) over time when the value associated with the high-level construal of the event is more favorable (unfavorable) than the value associated with the low-level construal of the event. Conversely, the value of an event will become less positive (negative) over time when the value associated with the high-level construal is less favorable (unfavorable) than the value associated with the low-level construal of the event. Based on the preceding discussion, the favorability of a distant future event should be closer to the value associated with its high-level construal, whereas the value of a near future event should be closer to the value associated with its low-level construal.

2.1.2 Feasibility and Desirability Distinction

Liberman and Trope (1998, 2000) suggest that in the case of distant-future activities, individuals tend to emphasize the goals of the activities, whereas in the case of near-future activities, individuals focus on the means of achieving these goals. They argue that one important difference between high-level and low-level construals of goal-directed action is their emphasis on the desirability versus feasibility of outcomes. Feasibility versus desirability is an important dimension of level of construal (Eyal et.

al, 2004). The distinction between feasibility and desirability corresponds to the distinction between means and ends (Gollwitzer and Moskowitz, 1996). Specifically, desirability refers to the value of an action's end state, whereas feasibility refers to the ease or difficulty of reaching the end state. For instance, desirability reflects the value one attaches to getting a newly-promoted CD, whereas feasibility reflects the amount of time and effort one has to invest to get the CD.

Desirability reflects the superordinate why aspects of an action, whereas feasibility reflects the subordinate how aspects of an action (Carver and Scheier, 1990, 1999; Vallacher and Wegner, 1987). Why aspects of an action are more abstract, general and better convey the action's meaning than how aspects (Vallacher and Wegner, 1987, 1989). Consistent with this, desirability constitutes high-level construals of actions, and feasibility constitutes low-level construals of actions. It then follows that features of desirability will become more salient in the distant future than in the near future, whereas features of feasibility will tend to be more salient in the near future than in the distant future. Liberman and Trope (2000) found that information about "why" aspects of actions is more influential in decisions for the distant future than for the near future. Therefore, desirability considerations are more likely to guide distant-future decisions, while feasibility considerations are more likely to guide near-future decisions. In other words, features associated with desirability will be more important in making decisions for distant future activities than for near future activities.

2.1.3 Development of Hypothesis 1

Based on the preceding discussion, the temporal shifts in the influence of features associated with feasibility versus desirability may have implications for consumer choice. Specifically, when individuals choose between product options differing in their feasibility and desirability, the time horizon related to their decision will influence them. Replicating the earlier findings in psychology, it is hypothesized that:

H₁ Temporal perspective can influence consumers' choice of products differing in feasibility and desirability. Specifically:

H_{1a} In immediate choice situations, consumers tend to emphasize feasibility over desirability considerations.

H_{1b} In delayed choice situations, consumers tend to emphasize desirability over feasibility considerations.

2.2 Temporal Distance and Regulatory Focus

2.2.1 Regulatory Focus Theory

Regulatory orientation is based on a person's particular concerns or interests that guide his or her behavior. Regulatory orientation can arise from physiological needs, social roles, and so on (Avnet and Higgins, 2006). Regulatory focus theory proposes a fundamental distinction between two modes of self-regulation called promotion and prevention. Promotion focus and prevention focus are deemed to differ in their strategic inclinations for attaining desired end states. Because a promotion focus involves a sensitivity to positive outcomes, an inclination to approach matches to

desired end-states is the natural strategy for promotion self-regulation (e.g. pursue all means of advancement). In contrast, because a prevention focus involves a sensitivity to negative outcomes, an inclination to avoid mismatches to desired end states is the natural strategy for prevention self-regulation (e.g. carefully avoid any mistakes).

To clarify, consider an example of students in the same course who are working to attain an A. Some students have a promotion-focus orientation toward an A, that is, the goal is experienced as a hope and an ideal, as something that satisfies the need for accomplishment. Others have a prevention-focus orientation toward an A, in this case, the goal is experienced as a responsibility, as something that satisfies the need for security. To pursue their goal, some students read material beyond the assigned readings--- an eager way to attain an A, whereas others are careful to fulfill all course requirements--- a vigilant way to attain an A. Previous studies have found that an eager manner fits a promotion focus than a prevention focus, whereas the reverse is true for a vigilant manner (Higgins, 2000).

According to regulatory focus theory (Higgins, 1998), a promotion focus involves sensitivity to the presence or absence of positive outcomes, emphasizing advancement, accomplishment, etc; whereas a prevention focus involves sensitivity to the absence or presence of negative outcomes, emphasizing caution, protection, etc. Individuals with promotion focus do not want to overlook options, while those with prevention focus only want to consider as many options as are necessary for the task at hand (Liberman et al. 2001; Friedman and Förster,2001).

Thus, promotion focus may be said to involve maximal goals, whereas

prevention focus involves minimal goals. A maximal goal reflects the most that one could wish for, whereas a minimal goal reflects bare necessities or the least one could comfortably tolerate. For maximal goals, individuals focus on the range of higher and better outcomes surpassing the goal point. For minimal goals, by contrast, individuals strive to keep from falling below a minimally acceptable outcome. In other words, maximal goals involve an unbounded upper range of ever more desirable possibilities, whereas the scope of action for minimal goals involves the lower range of unwanted possibilities (Brendl and Higgins, 1996; Freitas et al.2002).

2.2.2 The Linkage between Temporal Distance and Regulatory Focus

The preceding discussion suggests that with a temporally distant perspective, individuals have the liberty to envision optimal outcomes and to consider many alternative strategies. Time itself becomes a resource. They are more sensitive to desirable information, reflecting the promotion focus to achieve maximal goals. When temporal distance shortens, individuals do not have much liberty to maximize goals, promotion focus should likewise diminish. Instead they shift their emphasis to self-protection, and are more concerned with negative information, reflecting the prevention focus to ensure necessities. Time becomes a constraint.

Consistent with this, it has been found that when a deadline is impending, individuals think more about negative information and restrict the range of alternatives considered (Ariely and Zakay, 2001; Liberman et al.1999). Ginger and Roese (2003) found that temporal distance produced an effect on regulatory focus. Changes in temporal perspective altered the self-regulatory strategies individual adopted during

goal pursuit, and construal level of a goal was not able to account for the effect of time on regulatory focus. Specifically, with increasing amounts of time, individuals become more attuned to acquisition, achievement, and the presence of things desired as opposed to caution, security, and the prevention of things unwanted. That is, temporally distant events tend to be construed with a greater emphasis on promotion as compared with prevention. In sum, greater temporal distance increases the relative impact of promotion focus over prevention focus.

2.3 Regulatory Focus and Construal Level

2.3.1 Regulatory Focus and Strategy

Crowe and Higgins (1997) found that decision makers in promotion focus typically employ advancement tactics and approach accomplishments. Decision makers in prevention focus, on the other hand, typically use precautionary tactics and try to avoid mistakes. Consonant with this tendency, regulatory focus theory (Higgins, 1998) distinguishes between two different strategies of goal attainment, namely approach-oriented strategy and avoidance-oriented strategy, or eager strategies and vigilant strategies. For example, in a signal-detection situation such as deciding whether a stimulus was present or not, there are four different outcomes for a signal-detection trial: a) a hit--- accepting a correct stimulus, b) a miss--- rejecting a correct stimulus, c) a false alarm--- accepting a false stimulus, and d) a correct rejection--- rejecting a false stimulus (Tanner and Swets, 1954). In signal detection terms, eager strategies involve ensuring hits and ensuring against errors of omission or misses, while vigilant strategies involve ensuring correct rejections and ensuring

against errors of commission or false alarms (Trope and Liberman, 1996). There is a fit between promotion focus concerns and the use of eager strategies, and a fit between prevention focus concerns and the use of vigilant strategies (Higgins, 1998). Specifically, promotion-focused individuals are oriented toward eager strategies, and prevention-focused individuals employ vigilant strategies in pursuing desired end states. Therefore, promotion-focused self-regulation is characterized by greater eagerness, and prevention-focused self-regulation is characterized by greater vigilance.

2.3.2 The Linkage between Regulatory Focus and Construal Level

This distinction is of key importance in linking regulatory focus with construal level of information. Since individuals with a prevention focus are oriented toward safety and security, they exhibit a vigilant strategy and are more willing to forego alternatives to limit the chances of making mistakes (Crowe and Higgins, 1997). Prevention-focused individuals should thus prefer information that is seen as safe and whose use can be readily justified (Shafir, Simonson, and Tversky, 1993). It is difficult to deduce whether a high-level construal provides the assurance of avoiding mistakes and achieving safety. However, concrete, low-level construals provide the information specificity needed to limit such errors. Hence, prevention-focused individuals are more oriented toward low-level construals. On the other hand, individuals with a promotion focus adopt an eager strategy in the pursuit of accomplishment and growth. This orientation prompts them to guard against errors of omission rather than errors of commission (Crowe and Higgins, 1997). They are thus more willing to entertain alternative possibilities to enhance their chances of goal attainment. Since abstract,

high-level construals provide such an opportunity, promotion-focused individuals are more oriented toward high-level construals.

Consistent with the notion that an orientation that guards against errors of omission is compatible with a more abstract and general representation of information, and an orientation that guards against errors of commission is compatible with a more concrete representation of information (Crowe and Higgins, 1997; Levine et al., 2000), Keller, Lee, and Sternthal (2004) provided explicit evidence that there is a linkage between regulatory focus and construal level. Keller et al. (2004) found that individuals with a promotion focus are oriented toward construing information at a higher and more abstract level, whereas those with a prevention focus are oriented toward construing information at a lower, more concrete level. Since desirability constitutes high-level construals of actions, and feasibility constitutes low-level construals of actions. Therefore, it follows that when exposed to messages containing both high-level and low-level information that deal with desirability and feasibility issues, individuals with a promotion focus should elaborate more on desirability issues, whereas those with a prevention focus should elaborate more on feasibility issues.

2.3.3 Development of Hypothesis 2

The preceding review suggests that changes in temporal perspective alter individual self-regulation during goal pursuit, which in turn is associated with different levels of construal in dealing with desirability and feasibility issues. Specifically, in near future activities, prevention focus has more impact relative to promotion focus; whereas in distant future activities, promotion focus has more impact than prevention

focus. Moreover, a promotion focus prompts the construal of information at a higher level concerning desirability issues, whereas a prevention focus encourages the construal of information at a lower level addressing feasibility issues. Therefore, it is posited that:

H₂ Regulatory focus mediates the effect of temporal distance on consumer choice.

Specifically:

H_{2a} In immediate choice situations, consumers engage in self-regulation with a prevention focus, and thus emphasize feasibility over desirability issues.

H_{2b} In delayed choice situations, consumers engage in self-regulation with a promotion focus, and thus emphasize desirability over feasibility issues.

The conceptualization we propose in Hypotheses 1 and 2 regarding the relationship between temporal distance, regulatory focus, and consumer choice can be summarized with reference to Figure 1.

2.3.4 Development of Hypothesis 3

Consistent with the preceding review of the linkage between regulatory focus and construal level, Higgins et al. (1999, p.1143) speculate: a prevention focus encourages the representation in a more concrete and detailed form because every component of the task can potentially thwart the goal of safety and security. In contrast, a promotion focus might encourage a more abstract and general representation of a task because the goals of advancement and growth depend on finding any means of making progress.”

Support for the linkage between regulatory focus and construal level is also found in cross-cultural research (Morris and Peng, 1994; Trafimow, Triandis, and Goto, 1991). It has been found that participants from a collectivist culture, compared to those from an individualist culture, assigned a greater weight to low-level contextual factors than to high-level dispositional factors when they explained social events (Vallacher and Wegner, 1987; Morris and Peng, 1994). Given the finding that members of an individualist culture are likely to be promotion focused and members of a collectivist culture are likely to be prevention focused (Lee, Aaker, and Gardner, 2000), these results can be interpreted as evidence that there is a fit between promotion focus and high-level construals, and between prevention focus and low-level construals.

Since desirability constitutes a high-level construal of events, while feasibility constitutes a low-level construal of events, it follows that prevention-focused individuals are oriented toward feasibility issues, and promotion-focused individuals are oriented toward desirability issues. Therefore, when consumers are exposed to product options differing in feasibility and desirability, their self-regulatory focus will influence their choice. Specifically, prevention-focused consumers will place more weight on the feasibility of product options. Thus, they will tend to choose a product of high feasibility. In contrast, promotion-focused consumers will elaborate more on desirability issues, and will thus tend to choose a product of high desirability. Formally, it is hypothesized that:

H₃ Regulatory focus will moderate the effect of temporal perspective on consumer choice. Specifically:

H_{3a} In immediate choice situations, individuals primed with prevention focus will emphasize feasibility over desirability, with no difference between feasibility and desirability considerations for promotion-primed individuals.

H_{3b} In delayed choice situations, individuals primed with promotion focus will emphasize desirability over feasibility, with no difference between feasibility and desirability considerations for prevention-primed individuals.

CHAPTER 3 DESIGN AND RESULTS

In this chapter, we report the design and results of the four experiments that were conducted to test the hypotheses. Experiments 1 and 2 measured the regulatory focus of participants in forming their decisions, and assessed the predictions made in Hypotheses 1 and 2, regarding the influence of temporal perspective on choice, and the mediating role of regulatory focus. Experiments 3 and 4 manipulated the self-regulatory focus among participants, and tested the predictions of Hypothesis 3, regarding the moderating role of regulatory focus across immediate and delayed choice situations.

3.1 Pretests

Prior to the conduct of the experiments, pretests were performed to: (1) develop descriptions for restaurant and voice recognition software package, which were the product categories used in the experiments; and (2) calibrate two temporal distances perceived by participants as relatively immediate and delayed.

3.1.1 Pretest 1

In this pretest, we developed two descriptions differing in feasibility and desirability for two product categories: one was high in feasibility and low in desirability, the other was high in desirability and low in feasibility. The two product categories, restaurants and voice recognition software packages, were selected because they appealed to college students.

3.1.1.1 Method. We administered a two-page questionnaire to 96 NUS undergraduate students. In the first page, participants were asked to evaluate a restaurant or voice recognition software package in terms of its desirability and feasibility. They were then presented with the definitions of feasibility and desirability. In the second page, participants were randomly exposed to a description of a fictitious restaurant or a voice recognition software package. They then rated the feasibility and desirability of the restaurant or the software package on a two-item seven-point scale (1= very unfeasible, very undesirable, 7= very feasible, very desirable).

Restaurants were described from perspectives of desirability (e.g., food quality, reputation, service quality, and establishment) and feasibility (e.g., location, accessibility). Similarly, voice recognition software packages were described from perspectives of desirability (e.g., vocabulary, recognition rate) and feasibility (e.g., ease of learning the software, availability of helpline).

The descriptions that were retained for final use for each product category met two selection criteria. First, the feasibility rating had to be significantly higher for the high feasibility and low desirability description than the low feasibility and high desirability description. Second, the desirability rating had to be significantly higher for the high desirability and low feasibility description than the low desirability and high feasibility description.

3.1.1.2 Results. Two descriptions of restaurants --- one high in feasibility and low in desirability, the other high in desirability and low in feasibility, were retained based on the criteria. For example, the restaurant description of high desirability and low

feasibility was as follows: “The restaurant is an award-winning restaurant with an internationally recognized chef. It provides innovative cuisine. The food there is excellent, the establishment is very clean and well-kept. The staff always seem to be friendly and helpful. However, restaurant P is located in Johor Bahru. To get to the restaurant, you have to first take MRT to Jurong East station and then take the bus to Johor Bahru which will take you about two hours. After that, you have to transfer to another shuttle bus there.”

The feasibility rating was significantly higher for the high feasibility and low desirability scenario than the low feasibility and high desirability scenario ($M_{HiFLoD}=5.08$ vs. $M_{HiDLof}=2.67$, $t(30)=2.46$, $p=0.01$), while the desirability rating was significantly lower for the high feasibility and low desirability scenario than the high desirability and low feasibility scenario ($M_{HiFLoD} =2.94$ vs. $M_{HiDLof} =5.58$, $t(30)=-2.60$, $p=0.008$).

Similarly, two descriptions of software packages were retained for final use. For instance, the software package description of low desirability and high feasibility was as follows: “The software has a limited vocabulary of 10,000 words. After appropriate training, it can recognize up to 80% of your spoken commands. Learning to use the software is quite easy. You can get customer support through its helpline. It also has guidebook which you can learn by yourself, and you will only have to spend a few minutes to train and make the software analyze and understand your speech.”

The feasibility rating was significantly higher for the high feasibility and low desirability scenario than the low feasibility and high desirability scenario (M_{HiFLoD}

=5.25 vs. $M_{\text{HiDLof}} = 2.83$, $t(30) = 2.54$, $p = 0.01$), while the desirability rating was significantly lower for the high feasibility and low desirability scenario than the high desirability and low feasibility scenario ($M_{\text{HiFLoD}} = 3.42$ vs. $M_{\text{HiDLof}} = 5.67$, $t(30) = -2.31$, $p = 0.015$).

3.1.2 Pretest 2

3.1.2.1 Method. The objective of this pretest was to select two temporal distances perceived by participants as immediate and delayed. We administered a questionnaire with 160 NUS undergraduate students. Participants were randomly assigned to a scenario in which they were required to make a choice between two restaurants or two software packages today or one week from now or two weeks from now or one month from now or two months from now. This resulted in a 2 (scenario: restaurant vs. software) x 5 (temporal distance: today vs. one week vs. two weeks vs. one month vs. two months) between-subjects design.

For example, in the software, today condition, participants read: “Imagine today is your birthday, and your parents have promised to buy you a voice recognition software package developed by Microsoft as a present for your birthday. With this software installed into your computer, using its accompanying headset microphone, you can speak to your computer instead of typing and create e-mail, letters, reports and other documents. Two such kinds of software packages are available in market, and you have to choose one of them today.” On the other hand, in the restaurant, one month condition, participants read: “Imagine that one of your friends is leaving Singapore for further studies one month from now. You and your friends plan to treat this friend to

dinner as a send-off present one day before this friend leaves. And your friends have left it to you to decide where to treat this friend. Someone recommends you two restaurants, and you have to decide which one to pick around one month from now.” Today or one month from now was replaced by other temporal distances in the other conditions.

After reading the scenario, participants indicated their temporal perception on a seven-point scale anchored at “immediate choice” and “delayed choice”. Participants also rated the realism of the scenario on a seven-point scale.

3.1.2.2 Results. For the restaurant scenario, the results showed that among the temporal distances, today was rated as the most immediate ($M_I=2.5$), and one month from now was perceived as the most delayed ($M_D=5.2$). Moreover, the difference between today and one month from now was significant ($t(30)=-4.20, p=0.001$).

For the software package scenario, the results also showed that among the temporal distances, today was perceived as the most immediate ($M_I=2.9$), and one month from now was rated as the most delayed ($M_D=5.4$). Moreover, the difference between today and one month from now was significant ($t(30)=-3.95, p=0.001$). Therefore, today and one month were retained for final use in the following experiments.

Last, the realism ratings for restaurant and software scenarios were both above the scale midpoint of 4 ($M_{\text{today}}=4.48$, and $M_{\text{onemonth}}=4.95$ for restaurant scenario; $M_{\text{today}}=4.3$, and $M_{\text{onemonth}}=4.76$ for software scenario), suggesting that participants perceived the manipulated scenarios as realistic.

3.2 Experiment 1

In this study, we examined the relationship between temporal perspective and individual choice (Hypothesis 1) in a restaurant context. We also measured the regulatory focus of participants in forming their decisions to test our hypothesis that regulatory focus mediated the effect of temporal distance on individual choice (Hypothesis 2).

3.2.1 Method

3.2.1.1 Participants and Design. A total of 76 students participated in this study as partial fulfillment of the requirements of an introductory marketing course. They were randomly assigned to the conditions of a two-level, single-factor between-subjects design, i.e. immediate vs. delayed choice.

3.2.1.2 Procedure. Each participant received a questionnaire packet whose first page was a cover story telling them that we were interested in how they make decisions in different situations. In the next page, participants assigned to the immediate choice condition were presented with a scenario in which they were required to make a choice between two restaurants today as they wanted to treat a friend who was leaving Singapore for further studies tomorrow to dinner as a send-off present. Participants in the delayed choice condition were exposed to a scenario in which they were required to imagine making a choice between two restaurants one month from now to treat a friend to dinner as a send-off present as this friend was leaving Singapore for further studies one month later. Two restaurants were presented for choice: Restaurant P was of high desirability and low feasibility, while Restaurant Q was of

high feasibility and low desirability (for details, see Appendix A).

3.2.1.3 Measures. Immediately after reading the descriptions of the restaurants, participants indicated their restaurant choice. They then rated their preference for each restaurant on a ten-point scale anchored at “Not at all” and “Very much”. Next, participants’ regulatory focus in forming their decisions was assessed by six-item seven-point scale. Three items measured prevention focus: “I was concerned with what I would do to avoid making a disappointing decision”; “I was anxious that I would fall short of my responsibility in making my decision”; and “I focused on avoiding something I didn’t want in making my decision”. Three items measured promotion focus: “I focused on getting something I wanted in making my decision”; “I thought about what I would do to make a satisfactory decision”; and “I made an effort to achieve my goal of making a good decision”. The two types of items were interspersed.

Next, a manipulation check on temporal distance was carried out. Using a seven-point scale, participants then indicated the importance of service quality, accessibility, reputation, food quality, location, cleanliness, and convenience of restaurant in making their restaurant choice. This was intended to assess the weight attached to feasibility and desirability in different conditions. Service quality, reputation, food quality, and cleanliness related to desirability, while accessibility, location, and convenience of the restaurant related to feasibility. The two types of features were interspersed.

In addition, some background information about participants was collected, including their age, gender, and knowledge about restaurants compared to most of their peers. They were then inquired about the purpose of the study. Last, participants were debriefed and thanked. The experiment took an average of 20 minutes to complete.

3.2.2 Results

3.2.2.1 Manipulation Check and Control Variables. An ANOVA on the manipulation check of temporal distance revealed a main effect of temporal distance ($F(1,74)=79.485, p<0.001$). As expected, participants rated the today choice condition as more immediate ($M=2.34$) than the one month condition from now ($M=4.88$). A pooling test conducted on participants' knowledge about restaurants, gender, and age by including them as covariates in the ANOVA showed that none of these background factors influenced choice ($F(1,74)<1.4$; NS). Hence, they were excluded from further analysis.

3.2.2.2 Hypothesis Test. We observed temporal distance affected individual choice ($F(1,74)=6.90, p=0.01$), see Figure 2. Specifically, participants were more likely to choose the restaurant of high feasibility and low desirability in the immediate choice condition (58%) than in the delayed choice condition (28.9%, $X^2(1) = 6.48, p=0.01$). In contrast, participants were more likely to choose the restaurant of high desirability and low feasibility in the delayed choice condition (71.1%) than in the immediate choice condition (42%, $X^2(1) = 6.48, p=0.01$).

Consistent with their choice and previous psychological literature (Trope and Liberman, 2000), temporal distance influenced participants' preference for restaurants

differing in their feasibility and desirability ($F_{HF}(1,74)=10.81, p<0.01$; $F_{HD}(1,74)=3.36, p=0.07$). Specifically, the restaurant of high feasibility and low desirability was preferable in the immediate choice condition compared to delayed choice condition ($M_I=6.5$ vs. $M_D=5.0, t(74)= 3.29, p<0.005$). In contrast, the restaurant of high desirability and low feasibility was preferable in the delayed choice condition compared to immediate choice condition ($M_I=5.66$ vs. $M_D=6.53, t(74)=-1.83, p<0.05$). Therefore, Hypothesis 1 was supported.

Did participants' self-regulatory focus in forming their decision mediate the effect of temporal distance on their choice? The prevention focus scale was reliable (Cronbach $\alpha=.79$), while that for promotion focus (Cronbach $\alpha=.66$) was somewhat less reliable. The items were averaged to form indices assessing these respective constructs. Satisfying Baron and Kenny's (1986) requirement for mediation, temporal distance significantly affected participants' regulatory focus. In delayed choice condition, participants were more promotion focused ($F(1,74)=13.93, p<.001$), and in immediate choice condition, participants were more prevention focused ($F(1,74)=3.14, p=.08$). Finally, participants' regulatory focus (promotion or prevention) was added into the ANOVA model that examined the relationship between temporal distance and choice. When prevention focus was added to the model, the effect of temporal distance on choice became weaker ($F(1,50)=4.528, p=.04$); when promotion focus was added to the model, the effect of temporal distance on choice disappeared completely ($F(1,50)=.022, p=.88$). Therefore, all of Baron and Kenny's requirements for mediation were satisfied, suggesting that regulatory focus is one mechanism underlying participants' decision

process in different choice situations.

The mediating role of regulatory focus was also analyzed by employing a single scale comprising prevention and promotion measures. The three items of prevention focus were reverse coded with higher ratings indicating relatively more promotion focus and lower ratings indicating relatively more prevention focus. As this composite measure of regulatory focus was reliable (Cronbach $\alpha=.71$), the items were averaged to form an index measuring the construct. Satisfying Baron and Kenny's (1986) requirement for mediation, temporal distance significantly affected participants' regulatory focus ($F(1,74)=12.32, p<.001$). In delayed choice condition, participants were more promotion focused ($M=4.91$), and in immediate choice condition, participants were more prevention focused ($M=3.72, p=.001$). Finally, participants' regulatory focus was added into an ANOVA model that examined the relationship between temporal distance and choice. The results showed that the effect of temporal distance on choice became weaker ($F(1, 45)=5.07, p=.03$), suggesting regulatory focus partially mediated the effect of temporal distance on consumer choice. Therefore, no matter whether regulatory focus was represented by two separate dimensions (promotion and prevention) or indicated by a single scale, all of Baron and Kenny's requirements for mediation were satisfied. Hypothesis 2 was thus supported.

Additional statistical tests conducted found further evidence that it was regulatory focus affected by temporal distance that mediated the effects of temporal distance on consumer choice. In particular, the features related to desirability were reliable (Cronbach $\alpha=.68$), as were those related to feasibility (Cronbach $\alpha=.89$).

Hence, their respective importance ratings were averaged to form indices assessing the importance of feasibility and desirability. The feasibility and desirability indices were then submitted to MANOVA with temporal distance as a predictor. The results showed that there was a positive correlation between temporal distance and importance of desirability ($\beta=0.309$, $t(74)=2.79$; $M_I=4.5$, $M_D=5.24$; $p=.007$), suggesting that it enhanced the relative weight attached to desirability considerations. However, temporal distance did not influence the relative weight attached to feasibility considerations ($F(1,74)=2.477$, $M_I=5.46$, $M_D=4.95$; $p=.12$), suggesting that feasibility considerations did not mediate participants' decision.

We also examined the relationship between feasibility and desirability considerations and regulatory focus. An ANOVA revealed that neither feasibility nor desirability considerations influenced participants' regulatory focus ($F_s < 1.06$, NS), suggesting that participants' regulatory focus did not vary as a function of feasibility or desirability considerations. Collectively, these results alleviate the possibility that feasibility and desirability considerations mediated the effects of temporal distance on choice by influencing participants' regulatory focus.

3.2.3 Discussion

In this experiment, we measured the regulatory focus of participants in forming their decisions, and assessed the predictions made in Hypotheses 1 and 2 regarding the influence of temporal perspective on choice and the mediating role of regulatory focus. Consistent with Hypothesis 1, the results indicate that temporal perspective influences consumer choice. Specifically, under immediate choice, decision making is based more

on feasibility considerations, while under delayed choice, decision making is based more on desirability considerations. The experiment also confirms Hypothesis 2 which predicts the mediating role of regulatory focus in the relationship between temporal perspective and choice. Specifically, consumers tend to choose products superior in feasibility by activating prevention focus in immediate choice situation, while consumers tend to choose products superior in desirability by activating promotion focus in delayed choice situation.

3.3 Experiment 2

The purpose of this experiment was to replicate the results of Experiment 1 with a different product category. Experiment 2 also reversed the order of data collection for the choice and preference dependent measures.

3.3.1 Method

3.3.1.1 Participants and Design. Seventy-four students participated in this study in exchange for course credit. As three students guessed the purpose of the study correctly, their responses were excluded from analyses, resulting in 71 respondents. Similar to Experiment 1, participants were randomly assigned to an immediate or a delayed choice condition. The experiment used software package instead of restaurant as the product category.

3.3.1.2 Procedure. Similar to Experiment 1, each participant received a questionnaire packet whose first page was a cover story telling them that we were interested in how they make decisions in different situations. In the next page, participants were presented with a scenario in which they were asked to imagine that

their parents had promised to buy them a voice recognition software package developed by Microsoft as a present for their birthday. With the voice recognition software installed into their computer, using its accompanying headset microphone, they can speak to their computer instead of typing and create e-mail, letters, reports and other documents. Participants in the immediate choice condition had to choose between two such software packages today, while those in the delayed choice condition had to choose between these packages one month from now. Participants then read the descriptions of these software packages (for details, see Appendix B). Software A was superior in feasibility and inferior in desirability, and software B was superior in desirability and inferior in feasibility.

3.3.1.3 Measures. Immediately after reading the descriptions of the software packages, participants indicated their preference for each software package on a ten-point scale followed by their choice. Participants' regulatory focus in forming their decisions was then assessed using the same six-item seven-point scale employed in Experiment 1.

Next, a manipulation check on temporal distance was carried out. Using a seven-point scale, participants then indicated the importance of ease of learning the software, vocabulary, recognition capacity, and availability of helpline of voice recognition software package in making their decision. This was intended to assess the weight attached to feasibility and desirability in different conditions. Ease of learning the software and availability of helpline related to feasibility, while vocabulary and recognition capacity related to desirability. These two types of features were

interspersed.

In addition, some background information about participants was collected, such as gender, age, and familiarity towards voice recognition software package. They were then inquired about the purpose of the study. Last, participants were debriefed and thanked. The average completion time of the experiment was 20 minutes.

3.3.2 Results

3.3.2.1 Manipulation Check and Control Variables. An ANOVA on the manipulation check of temporal distance revealed a main effect of temporal distance ($F(1,71)=68.66, p<0.001$). As expected, participants rated the today choice condition as more immediate ($M=2.49$) than the one month condition from now ($M=5.0$). A pooling test conducted on participants' age, gender, and familiarity toward voice recognition software package by including them as covariates in the ANOVA showed that age and gender did not influence choice ($F(1,71)<1, NS$), but familiarity towards the product category did ($F(1, 68) =4.30, p=0.04$). Specifically, individuals familiar to the product category were more likely to choose the software package of high feasibility and low desirability, while those unfamiliar to the product category were more prone to the software package of high desirability and low feasibility. Therefore, participants' familiarity towards the product category was included as covariate in subsequent analyses

3.3.2.2 Hypothesis Test. Replicating Experiment 1, we observed that temporal distance influenced participants' preference for voice recognition software packages differing in their feasibility and desirability ($F_{HF}(1,69)=4.07, p<0.05$; $F_{HD}(1,69)=6.26,$

$p=0.015$). Specifically, the software package of high feasibility and low desirability was more preferred in the immediate than delayed choice condition ($M_I=6.29$ vs. $M_D=5.33$, $t(72)=2.02$, $p<.025$). In contrast, the software package of high desirability and low feasibility was more preferred in the delayed than immediate choice condition ($M_I=5.97$ vs. $M_D=7.19$, $t(72)=-2.50$, $p<.01$).

Consistent with consumer preference, we also observed that temporal distance affected individual choice ($F(1, 69)=8.14$, $p=.006$, see Figure 3). Specifically, participants were more likely to choose the software package of high feasibility and low desirability (60%) in the immediate choice condition than in the delayed choice condition (30.6%, $X^2(1) = 7.49$, $p<0.01$). In contrast, participants were more likely to choose the software package of high desirability and low feasibility in the delayed choice condition (69.4%) than in the immediate choice condition (40%, $X^2(1) = 7.49$, $p<0.01$). Therefore, the evidence supported Hypothesis 1.

Following Experiment 1, the next question was whether participants' self-regulatory focus in forming their decision mediated the effect of temporal distance on consumer choice. The prevention focus scale was reliable (Cronbach $\alpha=.73$), as was that for promotion focus (Cronbach $\alpha=.84$). Hence, items were averaged to form indices assessing these respective constructs. Satisfying Baron and Kenny's (1986) requirement for mediation, temporal distance significantly affected participants' regulatory focus. In the immediate choice condition, participants were more prevention focused ($F(1, 69)=22.73$, $p<.01$), while in the delayed choice condition, they were more promotion focused ($F(1, 69)=31.83$, $p<.01$). Finally, participants' regulatory focus

(promotion or prevention) was added into the ANOVA model that examined the relationship between temporal distance and choice. When prevention focus was added to the model, the influence of temporal distance on choice completely disappeared ($F(1,47)=2.335, p=.13$); when promotion focus was added to the model, the effect of temporal distance on choice also disappeared completely ($F(1,47)=.054, p=.82$). Therefore, all of Baron and Kenny's requirements for mediation were satisfied, suggesting that regulatory focus is one mechanism underlying participants' decision process in different choice situations.

The mediating role of regulatory focus was also analyzed by employing a single scale comprising prevention and promotion measures. The three items of prevention focus were reverse coded with higher ratings indicating relatively more promotion focus and lower ratings indicating relatively prevention focus. As this composite measure of regulatory focus was reliable (Cronbach $\alpha=.76$), its items were averaged to form an index assessing the construct. Satisfying Baron and Kenny's (1986) requirement for mediation, temporal distance significantly affected participants' regulatory focus ($F(1, 69)=51.44, p<.001$). Participants in the immediate choice condition were more prevention focused ($M=3.54$), while those in the delayed choice condition were more promotion focused ($M=4.82, p<.001$). Finally, participants' regulatory focus was added into an ANOVA model that examined the relationship between temporal distance and choice. The results showed that the influence of temporal distance on choice completely disappeared ($F(1,39)=1.20, p=.28$), suggesting regulatory focus fully mediated the effect of temporal distance on consumer choice.

Therefore, whether regulatory focus was represented by two separate dimensions (promotion and prevention) or indicated by a single scale, all of Baron and Kenny's requirements for mediation were satisfied. Hypothesis 2 was thus supported.

Additional statistical tests provided further evidence that it was regulatory focus affected by temporal distance that mediated the effects of temporal distance on consumer choice. In particular, the features related to desirability were reliable (Cronbach $\alpha=.68$), as were those related to feasibility (Cronbach $\alpha=.89$). Hence, their respective importance ratings were averaged to form indices assessing the importance of feasibility and desirability. The feasibility and desirability indices were then submitted to MANOVA with temporal distance as a predictor. The results showed that temporal distance was positively correlated with importance of desirability ($F(1,69)=7.049$, $M_I=5.27$, $M_D=5.90$; $p=.01$), suggesting that it enhanced the relative weight attached to desirability considerations. The negative correlation between temporal distance and importance of feasibility ($F(1,69)=45.344$, $M_I=5.1$, $M_D=3.5$; $p<.001$), suggested that temporal distance reduced the relative weight attached to feasibility considerations.

However, when the indices assessing the importance of feasibility and desirability were added into the model that examined the influence of temporal distance on regulatory focus, the effect of temporal distance on regulatory focus remained unchanged ($F(1, 43)=24.477$, $p<.001$). Moreover, when participants' regulatory focus was added into the MNOVA model that examined the influence of temporal distance on feasibility and desirability considerations, the effect of temporal distance on feasibility

consideration became weaker ($F(1, 39)=8.635, p=.006$), and the effect of temporal distance on desirability consideration completely disappeared ($F<1, p=.35$), suggesting that regulatory focus affected participants' feasibility and desirability considerations, not the other way round. These results alleviate the possibility that feasibility and desirability considerations mediated the effects of temporal distance on choice by influencing participants' regulatory focus.

3.3.3 Discussion

In Experiment 2, we measured the regulatory focus of participants in forming their decisions, and assessed the predictions regarding the influence of temporal perspective on choice, and the mediating role of regulatory focus. Experiment 2 conceptually replicated the results of Experiment 1 with a different product category in a different context, and indicated that the results were consistent regardless of the data collection sequence of choice and preference. Together, the two studies provide convergent evidence that temporal distance influences consumer choice of products differing in their feasibility and desirability, and confirm the mediating role of regulatory focus in the relationship between temporal perspective and choice. Specifically, feasibility considerations are relatively more influential in decisions about near future events, whereas desirability considerations are relatively more influential in decisions about distant future events. These effects are mediated by the regulatory focus of individuals in their decision-making process.

3.4 Experiment 3

In this study, we examine regulatory focus by manipulating prevention and promotion focus among participants to assess its moderating role on temporal perspective in consumer choice (Hypothesis 3).

3.4.1 Method

3.4.1.1 Design. One hundred and forty eight students participated in this study in exchange for course credit. As three students did not complete the questionnaire and one student guessed the purpose of the study correctly, their responses were excluded from analyses, resulting in 144 respondents. Participants were primed either with promotion focus or prevention focus, and were then required to make an immediate or a delayed choice between two software packages that were either high in feasibility and low in desirability or high in desirability and low in feasibility. This resulted in a 2 (prime: promotion focus vs. prevention focus) x 2 (temporal distance: immediate vs. delayed choice) between-subjects design. Participants were randomly assigned to the conditions.

3.4.1.2 Procedure. The experiment was administered in two supposedly unrelated studies. In the first study, participants completed a priming task adapted from Michel and Tamar (2004). In the promotion-primed condition, participants were asked to think about their past hopes, aspirations, and dreams, and to describe two of them in detail. They were then asked to think about their current hopes, aspirations, and dreams, and again to describe two of them in detail. In the prevention-primed condition, participants were asked to think about their past duties, obligations, and responsibilities,

and to describe two of them in detail. They were then asked to think about their current duties, obligations, and responsibilities, and again to describe two of them in detail.

Once participants had completed the priming task, they received the questionnaire packet for the second study. They were exposed to different choice conditions. Using the same scenarios as Experiment 2, participants assigned to the immediate choice condition were presented with a scenario in which they had to make a software package choice today, while those in the delayed choice condition were exposed to a scenario in which they were required to make a software package choice one month from now. Participants then read the descriptions of the two software packages, one high in feasibility and low in desirability, the other high in desirability and low in feasibility.

3.4.1.3 Measures. Immediately after reading the descriptions of the software packages, participants were required to indicate their software package choice followed by their preference for each on a ten-point scale anchored at “Not at all” and “Very much”. Participants’ regulatory focus in forming their decisions was then assessed by the six seven-point items (Cronbach $\alpha=.65$) employed in Experiment 2, which acted as a check for regulatory focus manipulation. The three items of prevention focus were reverse coded with higher ratings indicating promotion focus and lower ratings indicating prevention focus. These items were interspersed.

Next, a manipulation check on temporal distance was collected. Using a seven-point scale, participants then indicated the importance of ease of learning the software, vocabulary, recognition capacity, and availability of helpline in making their

decision, which was intended to assess the weight attached to feasibility and desirability in different conditions with ease of learning the software and availability of helpline relating to feasibility, and vocabulary, and recognition capacity relating to desirability. The two types of features were interspersed.

In addition, some background information about participants was collected for covariate checks, such as their age, gender, and familiarity towards voice recognition software. Finally, they were debriefed, thanked, and dismissed. The study took an average of 35 minutes to complete.

3.4.2 Results

3.4.2.1 Manipulation Check and Control Variables. An ANOVA on the manipulation check for temporal distance revealed a main effect of temporal distance ($F(1, 140)=130.65, p<.001$). As expected, participants rated the today choice condition as more immediate ($M=2.79$) than the one month condition ($M=5.32$). In addition, it was found that the priming task effectively affected participants' regulatory focus in their decision making process ($F(1,140)=89.958, p<0.001$). Specifically, individuals primed with promotion focus tended to be more promotion focused ($M=4.61$) as compared with those primed with prevention focus ($M=3.72$). This effect was qualified by a significant interaction between priming task and temporal distance ($F(1,140)=5.421, p=0.021$). Specifically, in the immediate choice condition, participants primed with prevention focus appeared to be prevention focused in their decision-making process ($M=3.14$), while those primed with promotion focus held no particular regulatory focus ($M=4.10$). In the delayed choice condition, participants

primed with promotion focus were more likely to be promotion focused ($M=5.05$), while those primed with prevention focus did not distinctly hold specific regulatory focus ($M=4.20$).

A pooling test conducted on participants' age, gender, and familiarity toward voice recognition software package by including them as covariates in the ANOVA showed that none of the background information influenced consumer choice ($F(1,137)<1$, NS).

3.4.2.2 Hypothesis Test. We analyzed the results using a 2 (temporal distance) x 2 (regulatory focus priming) between-subjects design. We observed significant main effects of temporal distance ($F(1,140)=5.008$, $p=0.027$) and regulatory focus ($F(1,140)=8.565$, $p=0.004$) on choice. Specifically, in the delayed choice condition, participants were more likely to choose the software of high desirability and low feasibility (58.3%), while in the immediate choice condition, they tended to choose the software of high feasibility and low desirability (60%, $X^2(1)=4.695$, $p=.03$). In addition, prevention-primed participants were more likely to choose the software package of high feasibility and low desirability (61.1%), while those primed with promotion focus were prone to choose the software of high desirability and low feasibility (62.5%, $X^2(1)=8.029$, $p=.005$).

These findings were qualified by a marginally significant interaction between temporal distance and regulatory focus ($F(1,140)=2.024$, $p<0.09$, see Figures 4a and 4b). Specifically, in the immediate choice condition, prevention-focused individuals were more likely to choose the software package of high feasibility and low desirability

over that of high desirability and low feasibility (69.4% vs. 30.6%, $X^2(1)= 5.44$, $p=.02$), while those primed with promotion focus showed no difference in their choice of software differing in feasibility and desirability (47.3% vs. 52.7%, $X^2(1)=0.111$, $p=.739$). On the other hand, in the delayed choice condition, promotion-focused individuals were more likely to choose the software package of high desirability and low feasibility over that of high feasibility and low desirability (72.2% vs. 27.8%, $X^2(1)=7.111$, $p=.008$), while there was no difference in the choice of software differing in feasibility and desirability for those primed with prevention focus (47.2% vs. 52.8%, $X^2(1)=0.111$, $p=.739$). The results are summarized in Table 1 and support H₃, which states that in the immediate choice condition, individuals primed with prevention focus will emphasize feasibility over desirability, with no difference between feasibility and desirability considerations for promotion-primed individuals. However, in the delayed choice condition, individuals primed with promotion focus will emphasize desirability over feasibility, with no difference between feasibility and desirability considerations for prevention-primed individuals.

Consistent with their choice, we observed significant main effects of temporal distance ($F_{HD}(1,140)=3.746$, $p<0.06$; $F_{HF}(1,140)=0.493$, $p=0.49$) and regulatory focus ($F_{HF}(1,140)=4.819$, $p=0.03$; $F_{HD}(1,140)=7.260$, $p=0.008$) on preferences. Specifically, the software package of high desirability and low feasibility was preferred in the delayed choice condition ($M_D= 6.43$) than in the immediate choice condition ($M_I=5.72$), while the preference for the software package of high feasibility and low desirability did not change with temporal distance ($M_I=5.78$, $M_D= 6.0$). In addition,

prevention-primed individuals ($M= 6.24$) preferred the software of high feasibility and low desirability than those primed with promotion focus ($M=5.54$), in contrast, promotion-primed individuals ($M=6.6$) rated the software of high desirability and low feasibility higher than those primed with prevention focus ($M=5.58$).

These findings were qualified by a significant interaction between temporal distance and regulatory focus ($F_{HF}(1,140)=4.31, p<0.05$; $F_{HD}(1,140)=5.76, p<0.025$). Specifically, in the immediate choice condition, participants primed with prevention focus preferred the software of high feasibility and low desirability ($M=5.95$) more than that of high desirability and low feasibility ($M=5.05, F(1,140)=3.43, p<.05$), while those primed with promotion focus showed no significant difference in their preference of software differing in feasibility and desirability ($M_{HF}=5.92, M_{HD}=6.19, F(1,140)=0.98, p=.323$). In the delayed choice condition, participants primed with promotion focus preferred the software of high desirability and low feasibility ($M=6.94$) than that of high feasibility and low desirability ($M=5.47, F(1,140)=6.26, p=.014$), however, there was no significant difference in their preference for those primed with prevention focus ($M_{HF}=6.53, M_{HD}=5.92, F(1,140)=1.08, p=.301$). The results are summarized in Table 2. Hypothesis 3 was thus supported.

Since the features related to desirability (Cronbach $\alpha=.68$) and feasibility (Cronbach $\alpha=.68$) were reliable, their respective importance ratings were averaged to form indices assessing the importance of feasibility and desirability. The feasibility and desirability indices were then submitted to MANOVA with temporal distance as a predictor. Further evidence showed that neither participants' feasibility considerations

nor their desirability considerations were affected by factor of temporal distance ($F(1,140) < 1$, NS), suggesting that feasibility and desirability considerations were not the mechanism underlying the decision process of individuals.

3.4.3 Discussion

In Experiment 3, we manipulated self-regulatory focus among participants by requiring them to write their past and current dreams or duties, and tested the predictions of Hypothesis 3, regarding the moderating role of regulatory focus across immediate and delayed choice situations. Consistent with Hypothesis 3, the results tentatively indicate that regulatory focus moderates the effect of temporal perspective on consumer choice. Specifically, under immediate choice, decision making is based more on feasibility considerations for individuals with a prevention focus. In contrast, under delayed choice, decision making is based more on desirability considerations for individuals with a promotion focus.

3.5 Experiment 4

The purpose of this experiment was to replicate the results of Experiment 3 with a different product category---restaurant, reversing the order of data collection for the choice and preference dependent measures, and using a different priming procedure.

3.5.1 Method

3.5.1.1 Design. One hundred and seventeen students participated in this study in exchange for course credit. As two students did not complete the questionnaire, their responses were excluded from analyses, resulting in 115 respondents. Similar to Experiment 3, participants were primed either with promotion focus or prevention

focus, and were then required to make an immediate choice or a delayed choice between two restaurants that were either high in feasibility and low in desirability or high in desirability and low in feasibility. This resulted in a 2 (prime: promotion focus vs. prevention focus) x 2 (temporal distance: immediate vs. delayed choice) between-subjects design. Participants were randomly assigned to the conditions.

3.5.1.2 Procedure. The experiment was administered in two supposedly unrelated studies. In the first study, participants completed a regulatory focus priming task (Lee et al., 2000). They were presented with the following scenario: “Imagine you are playing in a game show and so far you have claimed \$1200 in prizes. You have just played the fourth round and lost. Now the game show host presents you with two options.” Half the participants were then exposed to promotion-focused information emphasizing potential gains: “If you pick alternative A, you will keep \$400 worth of the prizes. If you pick alternative B, there is a 2/3 probability that you will not win any of the \$1200 worth of prizes and a 1/3 probability that you will win all \$1200 worth of prizes.” The other participants were then exposed to prevention-focused information emphasizing potential losses: “If you pick alternative A, you will have to give up \$800 worth of the prizes. If you pick alternative B, there is a 2/3 probability that you will lose all \$1200 worth of prizes and a 1/3 probability that you will not lose any of the \$1200 worth of prizes.” All participants were then asked to rate the situation described in the scenario on a two-item 7-point scale (1= very bad, unfavorable, 7= very good, favorable) intended to assess participants’ sensitivity to potential gains versus potential losses, which is a way of checking this regulatory focus manipulation.

In the second study, participants were exposed to different choice conditions. Participants assigned to the immediate choice condition were presented with a scenario in which they had to make a restaurant choice today, while those in the delayed choice condition were exposed to a scenario in which they were required to make a restaurant choice one month from now. The same scenarios as those used in Experiment 1 were employed. Participants then read the descriptions of the two restaurants, one superior in feasibility and inferior in desirability, the other superior in desirability and inferior in feasibility.

3.5.1.3 Measures. Immediately after reading the descriptions of the restaurants, participants were required to indicate their preference for each restaurant on a ten-point scale anchored at “Not at all” and “Very much” followed by their restaurant choice.

Next, a manipulation check on temporal distance was collected. Using a seven-point scale, participants then indicated the importance of service quality, accessibility, reputation, food quality, location, cleanliness, and convenience of restaurant in making their restaurant choice. This was intended to assess the weight attached to feasibility and desirability in different conditions, with service quality, reputation, food quality, and cleanliness relating to desirability, while accessibility, location, and convenience of the restaurant relating to feasibility. The two types of features were interspersed.

In addition, some background information about participants was collected, including their age, gender, and knowledge about restaurants compared to most of their peers. Finally, respondents were debriefed, thanked, and dismissed. The average

completion time of the experiment was 30 minutes.

3.5.2 Results

3.5.2.1 Manipulation Check and Control Variables. The results of a one-way ANOVA on the favorableness rating (Pearson $r(115) = .781$) for the game show scenario indicated that the effect of regulatory focus was significant ($F(1, 113) = 163.91, p < .001$). Participants considered the scenario emphasizing potential gains to be more favorable ($M = 4.90$) than that emphasizing potential losses ($M = 2.51$). This suggests that participants comprehended the difference in the valence of the two scenarios, showing that our manipulation of regulatory focus is valid.

An ANOVA on the temporal distance manipulation check revealed a main effect of temporal distance ($F(1, 113) = 139.55, p < .001$). As expected, participants rated the today choice condition as more immediate ($M = 2.51$) than the one month condition from now ($M = 5.40$).

A pooling test conducted on participants' age, gender, and knowledge about restaurants compared with most of their peers by including them as covariates in the ANOVA showed that the background information of participants' knowledge about restaurants did not influence consumer choice ($p > 0.1$), but participants' age and gender did ($F_{\text{age}}(1, 107) = 5.942, p = .016$; $F_{\text{gender}}(1, 107) = 15.219, p = .024$). Specifically, younger participants were more likely to choose the restaurant of high desirability and low feasibility, and female participants were more likely to choose the restaurant of high feasibility and low desirability. Participants' age and gender were thus incorporated as covariates in the subsequent analyses.

3.5.2.2 Hypothesis Test. We analyzed the results using a 2 (temporal distance) x 2 (regulatory focus priming) between-subjects design. We observed significant main effects of temporal distance ($F_{HD}(1,111)=4.97, p<0.03$; $F_{HF}(1,111)=5.57, p=0.02$) and regulatory focus ($F_{HF}(1,111)=4.03, p<0.05$; $F_{HD}(1,111)=5.89, p<0.02$) on preferences. Specifically, the restaurant of high desirability and low feasibility was preferred in the delayed choice condition ($M=6.90$) rather than in the immediate choice condition ($M=5.96$). In contrast, the restaurant of high feasibility and low desirability was preferred in the immediate choice condition ($M=5.95$) than in the delayed choice condition ($M=4.93$). In addition, prevention-primed individuals ($M=5.71$) preferred the software of high feasibility and low desirability than those primed with promotion focus ($M=5.10$). In contrast, promotion-primed individuals ($M=6.66$) rated the software of high desirability and low feasibility better than those primed with prevention focus ($M=5.98$).

These findings were qualified by a significant interaction between temporal distance and regulatory focus ($F_{HF}(1,111)=3.86, p<0.06$; $F_{HD}(1,111)=7.26, p<0.01$). Specifically, in the immediate choice condition, participants primed with prevention focus preferred the restaurant of high feasibility and low desirability ($M=6.71$) over that of high desirability and low feasibility ($M=5.28, F(1,111)=3.345, p=.07$), while those primed with promotion focus showed no significant difference in their preference of restaurant ($M_{HF}=5.79, M_{HD}=6.21, F(1,111)=0.301, p=.584$). In the delayed choice condition, participants primed with promotion focus preferred the restaurant of high desirability and low feasibility ($M=7.07$) over that of high feasibility and low

desirability ($M=4.60$, $F(1,111)=10.686$, $p=.001$). However, there was no significant difference in the preference for those primed with prevention focus ($M_{HF}=6.1$, $M_{HD}=5.72$, $F(1,111)=0.244$, $p=.622$). The results are summarized in Table 3.

The choice results were similar. In particular, we observed significant main effects of temporal distance ($F(1,111)=5.449$, $p=0.02$) and regulatory focus ($F(1,111)=3.773$, $p<.06$) on choice. Specifically, in the delayed choice condition, participants were more likely to choose the restaurant of high desirability and low feasibility (62.1%), while in the immediate choice condition, they tended to choose the restaurant of high feasibility and low desirability (60%, $X^2(1)= 5.428$, $p=.02$). In addition, prevention-primed participants were more likely to choose the restaurant of high feasibility and low desirability (57.9%), while those primed with promotion focus were prone to choose the software of high desirability and low feasibility (60.3%, $X^2(1)= 3.828$, $p=.05$).

These findings were qualified by a significant interaction between temporal distance and regulatory focus ($F(1,111)=5.023$, $p<0.03$, see Figures 5a and 5b). Specifically, in the immediate choice condition, prevention-focused individuals were more likely to choose the restaurant of high feasibility and low desirability over that of high desirability and low feasibility (69% vs. 31%, $X^2(1)= 4.17$, $p=.04$), while those primed with promotion focus showed no difference in their choice of restaurant (50% vs. 50%). On the other hand, in the delayed choice condition, promotion-focused individuals were more likely to choose the restaurant of high desirability and low feasibility (70% vs. 30%, $X^2(1) = 4.80$, $p=.028$), while there was no significant

difference in the choice of restaurant differing in feasibility and desirability for those primed with prevention focus (53.6% vs. 46.4%, $X^2(1) = 0.143, p=.705$). The results are summarized in Table 4 and support H₃, which states that in the immediate choice condition, individuals primed with prevention focus will emphasize feasibility over desirability, with no difference between feasibility and desirability considerations for promotion-primed individuals. However, in the delayed choice condition, individuals primed with promotion focus will emphasize desirability over feasibility, with no difference between feasibility and desirability considerations for prevention-primed individuals.

Since the features related to desirability (Cronbach $\alpha=.70$), and feasibility (Cronbach $\alpha=.89$) were reliable, their respective importance ratings were averaged to form indices assessing the importance of feasibility and desirability. The feasibility and desirability indices were then submitted to MANOVA with temporal distance and regulatory focus manipulation as predictors. The results revealed a main effect of regulatory focus manipulation on desirability considerations ($F(1,111)=4.332, p=0.04$). Specifically, promotion-primed individuals put more emphasis on desirability issues ($M=5.38$) compared to those primed with prevention focus ($M=4.95$), while prevention-primed individuals put greater weight on feasibility issues ($M=4.91$) than those primed with promotion focus ($M=4.50$). However, neither participants' feasibility considerations nor their desirability considerations were affected by factor of temporal distance ($F(1,111)<2.2, NS$), suggesting that feasibility and desirability considerations were not the mechanism underlying the decision process of individuals.

3.5.3 Discussion

Similar to Experiment 3, we manipulated the self-regulatory focus among participants by presenting them a game show scenario emphasizing potential gains or losses, and tested the prediction regarding the moderating role of regulatory focus across immediate and delayed choice situations. Experiment 4 conceptually replicated the results of Experiment 3 with a different product category in a different context, indicating that the results were robust across data collection sequence of choice and preference. Together, the two studies provide convergent evidence for the hypothesis that regulatory focus moderates the effect of temporal perspective on consumer choice. Specifically, feasibility considerations are relatively more influential in decisions of prevention-focused individuals about near future events, whereas desirability considerations are relatively more influential in decisions of promotion-focused individuals about distant future events.

CHAPTER 4 GENERAL DISCUSSION

4.1 Conclusions

The present research presented participants with the same information about near and distant future activities. Nevertheless, participants' choices regarding these activities systematically varied as a function of temporal distance. According to temporal construal theory, such changes in choice occur because temporal distance from actual engagement in an activity changes the way the activity is represented. Distant future activities, compared with near future activities, are presumably represented schematically in terms of features that are abstract and central to the meaning of the activities rather than in terms of more concrete and secondary features. Therefore, distant future decisions, compared with near future decisions, should be more influenced by value attached to high-level construals (desirability) and less influenced by value attached to low-level construals (feasibility) of the same activity.

Temporal construal theory proposes that in thinking about near compared with distant future situations, people use lower level construals--- construals that include more concrete and peripheral features of the situations. In construing goal-directed actions, desirability considerations --- which pertain to the action's end state--- constitute high-level construals, whereas feasibility aspects--- which pertain to the means for reaching that end-state--- constitute low-level construals.

The principle of regulatory focus (Higgins, 1998) distinguishes between two strategies for goal attainment--- promotion focus and prevention focus --- which are

motivational states. Although both strategies embrace the hedonic goal of approaching pleasure, they are distinct in that a promotion focus emphasizes advancement and accomplishment, involving sensitivity to positive outcomes, whereas a prevention focus emphasizes caution and protection, involving sensitivity to negative outcomes. Regulatory focus is associated with construal level, with promotion focus associating with high-level construal (desirability) and prevention focus associating with low-level construal (feasibility), which leads to the idea of the present research.

The present research applied temporal construal theory to consumer choice of products differing in feasibility and desirability, and examined the role of regulatory focus in the decision-making process. It strengthens and extends the previous findings and provides support for the view that temporal distance is able to affect individual choice, depending on which regulatory focus is salient. Specifically, short-time horizons prompt a more prevention focus, as a result, feasibility is emphasized when the choice is more immediate in nature. In contrast, long-time horizons prompt a more promotion focus, and consequently, greater emphasis is placed on desirability, demonstrating that regulatory focus is one mechanism underlying the decision-making process.

In addition, the evidence has shown that regulatory focus can influence the effect of temporal distance on consumer choice. Specifically, in immediate choice situations, individuals with a prevention focus tend to emphasize feasibility over desirability, with no difference between feasibility and desirability considerations for those with a promotion focus. In delayed choice situations, individuals with a

promotion focus emphasize desirability over feasibility, with no difference between feasibility and desirability considerations for those with a prevention focus. This demonstrates the moderating role of regulatory focus in the relationship between temporal distance and consumer choice.

The moderating role of regulatory focus was examined with two different product categories in two different contexts. Across the first two experiments, we measured participants' regulatory focus during their decision-making process, and present convergent evidence that different temporal perspective is associated with distinct regulatory focus, which in turn influences individual decision. In Experiments 3 and 4, we more directly assess the role of regulatory focus by manipulating prevention and promotion among participants. Consistent evidence that regulatory focus moderates the effect of temporal perspective on consumer choice, with promotion focus more influential in decisions under delayed choice conditions, and with prevention focus influencing decisions of individuals in immediate choice conditions was obtained.

4.2 Contributions

The present research contributes to temporal construal theory and regulatory focus theory. Specifically, it enhances the generality of temporal construal theory by applying it to marketing context. While past work has focused on psychological situations, the present research examined temporal construal theory in influencing consumer preference and choice. The results thus extend temporal construal theory to more applied settings.

This research also offers an explanation for why individuals tend to focus more on desirability aspects (high-level construal) in the distant future, and focus more on feasibility aspects (low-level construal) in the near future. The process-based account presented refines temporal construal theory and links it with regulatory focus theory. By so doing, it also extends regulatory focus theory in a substantive manner. Empirical support for the linkage was also furnished by the experiments conducted. The findings suggest that the temporal aspects of regulatory focus theory can be meaningfully explored from a temporal construal perspective.

4.3 Managerial Implications

The present research has important implications for real-life decision situations particularly in which the available options involve a trade-off between feasibility and desirability. It is shown that desirability may be the prime determinant of distant future intentions or behaviors, while feasibility may receive more weight in determining near future actions. The results of these studies further suggest that from a managerial standpoint, one needs to be sensitive to the effect of temporal distance on consumers' evaluation of products when designing communication strategies. Specifically, when an evaluation of a product is in the near future, the communication strategies should be designed to deemphasize the effort required to obtain the product, while when an evaluation is in the distant future, the communication strategies should be designed to make the benefits of the product salient.

As indicated by the studies presented here, in the case of distant-future evaluations, individuals emphasize the goals related to these activities. Desirability of

the end state linked to an activity is the actuating motivation. In the case of near-future activities, individuals focus more on the means for achieving goals. This offers the potential to segment and target customers through marketing communications based in part on near-future versus distant-future orientation.

In addition, regulatory focus has been operationalized both in terms of situationally labile cognitive states as well as chronic processing tendencies, each having similar classes of consequences (Pennington and Roese, 2003). As indicated by the present research, regulatory focus plays an important role in decisions of individuals which cannot be neglected in promoting products. Marketers can weaken the tendency of individuals to construe distant-future events in high-level terms, especially when the high-level features are unfavorable by priming them into prevention focus. Similarly, they can also alleviate the tendency to construe near-future events in low-level terms, particularly when the low-level features are not favorable by priming people into promotion focus. For example, to attract people to a restaurant which provides excellent food and service but is located at an inconvenient place, managers can try to emphasize the potential gains of dining in the restaurant, making people focus more on the good food and service quality, while neglecting the unfavorable location of the restaurant.

4.4 Limitations and Future Research

In the present research, we only examined two temporal distances. For generalization and better understanding, it would be useful to examine other temporal distances in future research to reveal the decision-making process in more detail.

In addition, the products we employed were different in terms of their desirability and feasibility which is only one dimension of high- and low-level construals. Other dimensions of high-level and low-level construals (e.g. central vs. peripheral, relevant vs. irrelevant) deserve to be investigated in future. It may also be worthwhile to conceptualize the various instances of social distance (e.g. self vs. other, in-group vs. out-group), and possibly other distance dimensions (e.g. spatial distance) to examine whether the same principles of construal apply across different dimensions of distance. It is possible that the different dimensions of distance act in a compensatory way. It is also possible that moving a stimulus on one dimension may cause people to perceive the stimulus as being more removed on other dimensions as well. For example, geographical distance may foster perception of dissimilarity, dissimilarity may foster perception of social distance and so on.

Last, future research might look into other moderators in the effect of temporal perspective on consumer choice, such as people's involvement and cultural background.

TABLES

Table 1				
EXPERIMENT 3: CHANGES OF CHOICE SHARE AS A FUNCTION OF EXPERIMENTAL MANIPULATIONS				
	Immediate Choice		Delayed Choice	
Regulatory Focus	Promotion (n=36)	Prevention (n=36)	Promotion (n=36)	Prevention (n=36)
High Feasibility	47.3%	69.4%	27.8%	52.8%
High Desirability	52.7%	30.6%	72.2%	47.2%

Table 2				
EXPERIMENT 3: MEAN OF PREFERENCES AS A FUNCTION OF EXPERIMENTAL MANIPULATIONS				
	Immediate Choice		Delayed Choice	
Regulatory Focus	Promotion (n=36)	Prevention (n=36)	Promotion (n=36)	Prevention (n=36)
High Feasibility	5.92	5.95	5.47	6.53
High Desirability	6.19	5.05	6.94	5.92

Table 3				
EXPERIMENT 4: MEAN OF PREFERENCES AS A FUNCTION OF EXPERIMENTAL MANIPULATIONS				
	Immediate Choice		Delayed Choice	
Regulatory Focus	Promotion (n=28)	Prevention (n=29)	Promotion (n=30)	Prevention (n=28)
High Feasibility	5.79	6.71	4.60	6.10
High Desirability	6.21	5.28	7.07	5.72

Table 4				
EXPERIMENT 4: CHANGES OF CHOICE SHARE AS A FUNCTION OF EXPERIMENTAL MANIPULATIONS				
	Immediate Choice		Delayed Choice	
Regulatory Focus	Promotion (n=28)	Prevention (n=29)	Promotion (n=30)	Prevention (n=28)
High Feasibility	50%	69%	30%	53.6%
High Desirability	50%	31%	70%	46.4%

FIGURES

Figure 1
SUMMARY OF PREDICTED RELATIONSHIP IN H₁ AND H₂

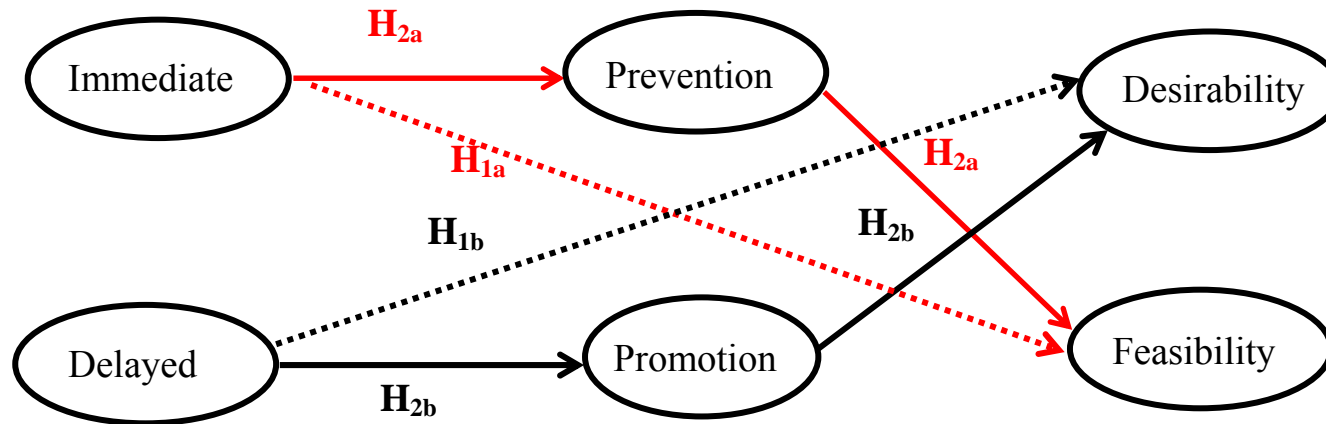


Figure 2: Effect of Temporal Distane on Choice

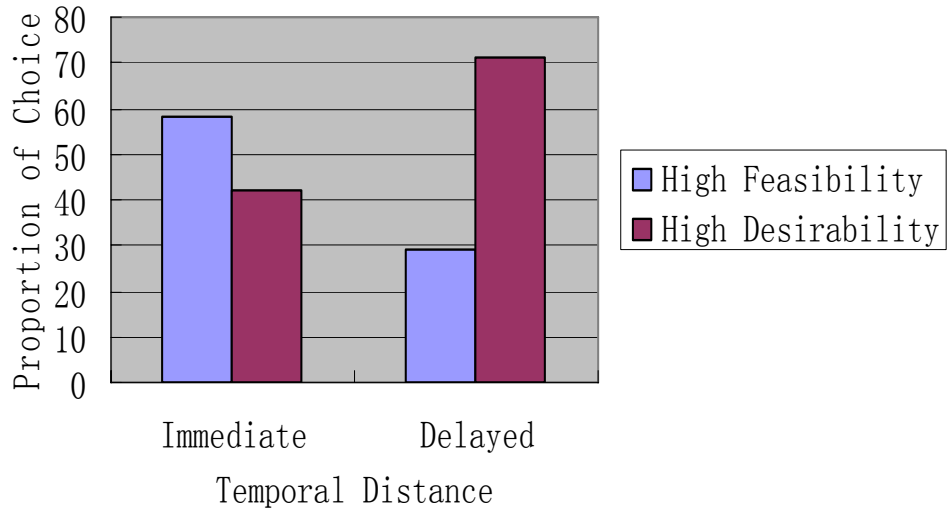


Figure 3: Effect of Temporal Distane on Choice

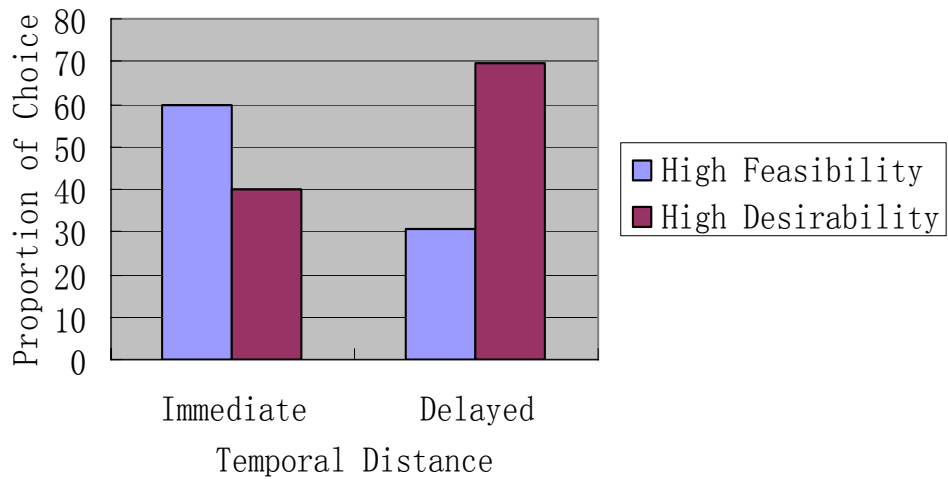


Figure 4a: Results of Immediate Choice

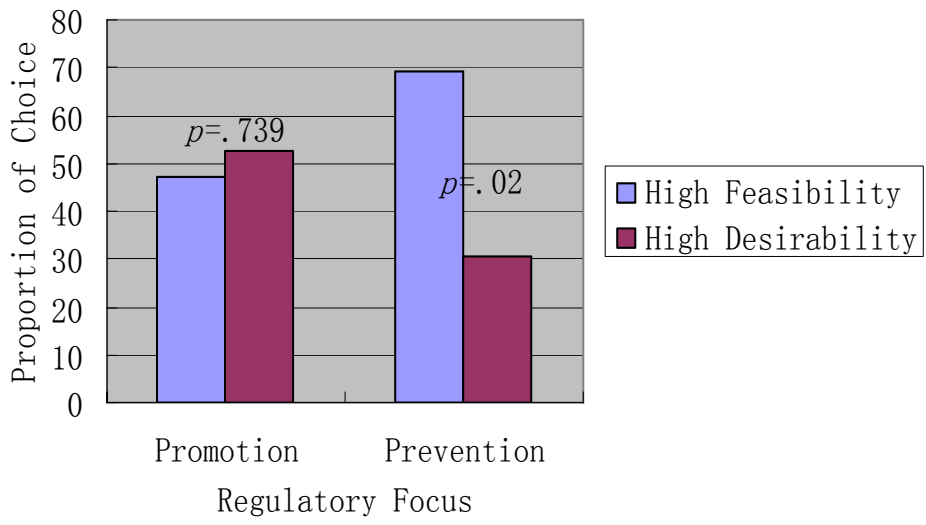


Figure 4b: Results of Delayed Choice

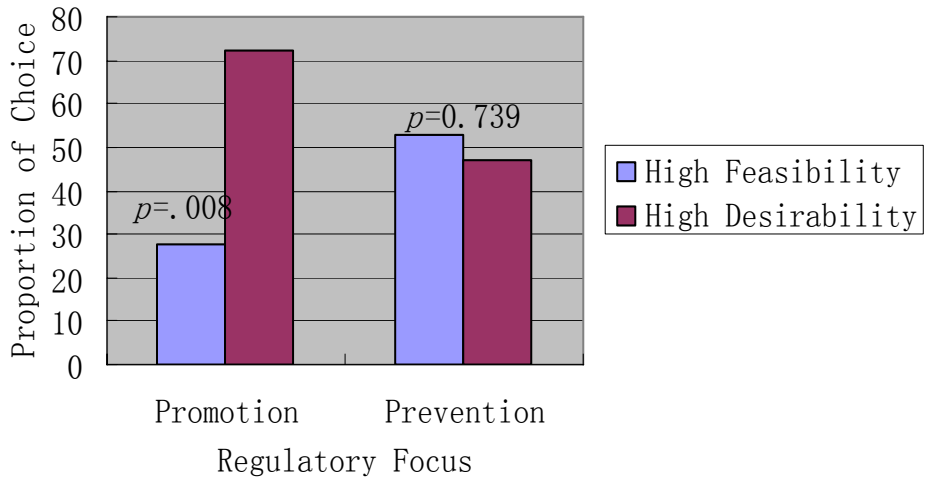


Figure 5a: Results of Immediate Choice

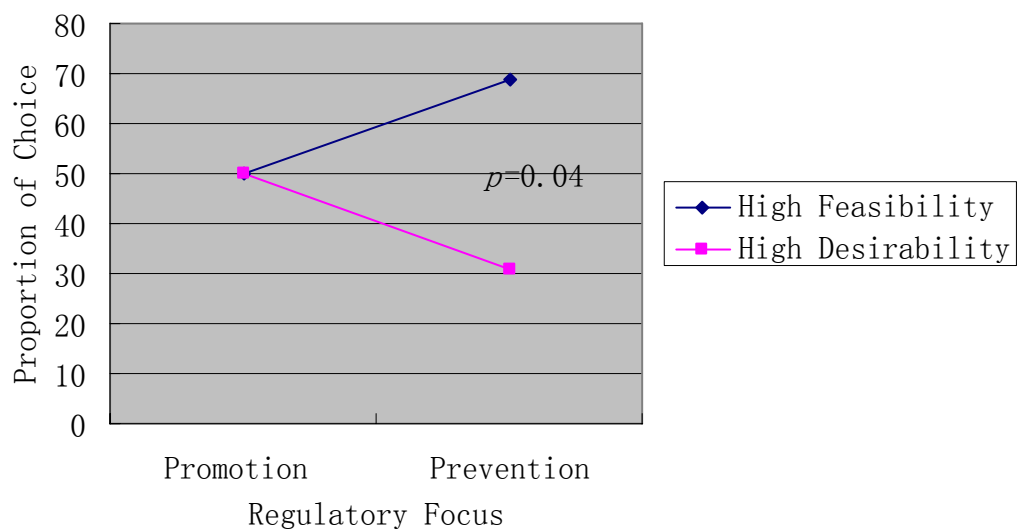
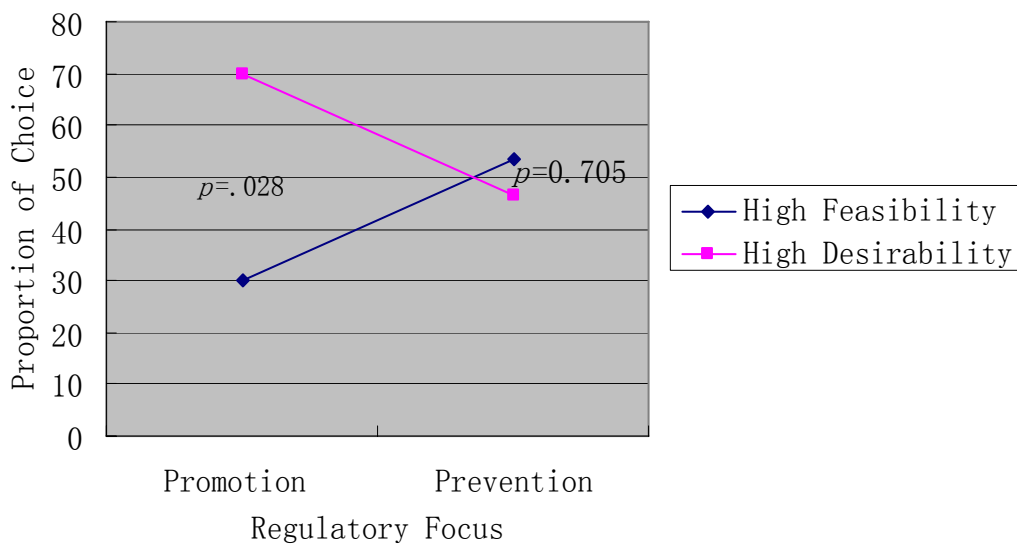


Figure 5b: Results of Delayed Choice



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APPENDICES

APPENDIX A

Imagine that one of your friends is leaving Singapore for further studies one month from now. You and your friends plan to treat this friend to dinner as a send-off present one day before this friend leaves. And your friends have left it to you to decide where to treat this friend. Someone recommends you two restaurants, and you have to decide which one to pick around **one month from now**. Here are the descriptions of the two restaurants:

Restaurant P is an award-winning restaurant with an internationally recognized chef. It provides innovative cuisine. The food there is excellent, the establishment is very clean and well-kept. The staff always seem to be friendly and helpful. However, restaurant P is located in Johor Bahru. To get to the restaurant, you have to first take MRT to Jurong East station and then take the bus to Johor Bahru which will take you about two hours. After that, you have to transfer to another shuttle bus there.

Restaurant Q is located right in town, and thus it is very convenient to get there. Restaurant Q hasn't won any awards and its chef is little known. The food there is ordinary. The establishment is clean but a little disorganized. The service is rushed and less personal as the restaurant is generally crowded.

APPENDIX B

Imagine that your parents have promised to buy you a voice recognition software package developed by Microsoft as a present for your birthday. With this software installed into your computer, using its accompanying headset microphone, you can speak to your computer instead of typing and create e-mail, letters, reports and other documents. **Today** is your birthday, and two such kinds of software packages are available in market. Imagine you have to choose one of these packages **today**. The following are the descriptions of these two software packages:

Software A has a limited vocabulary of **10,000** words. After appropriate training, it can recognize up to **80%** of your spoken commands. Learning to use the software is **quite easy**. You can get customer support through its helpline. It also has guidebook which you can learn by yourself, and you will only have to spend **a few minutes** to train and make the software analyze and understand your speech.

Software B has a large vocabulary of **100,000** words. After appropriate training, it can recognize up to **99%** of your spoken commands. However, learning to use the software is **somewhat difficult**. It has no guidebook or helpline, and you have to spend much time, say **a few weeks**, to train and make the software analyze and understand your speech.