

國立交通大學
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規範導向與模擬思考：
向上或向下的事前與反事實思考

Regulatory Focus and Simulating Alternatives:

Ups or Downs of Prefactual and Counterfactual Thinking

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誌謝

這是一場美麗的冒險旅程，好像才剛開始，卻驚覺已經過了一年，論文要畫上句點了。從規畫時的 desirability，到執行時的 feasibility，都比不上旅途中的 variability。也正因為如此，寫下這年精彩又難忘的旅行日記，在我腦海。

馮正民老師跟黃昱凱老師的指導，是我的指北針，一路指引方向；陳光華老師跟陳穆臻老師在計畫書與期中進度給予的寶貴意見，是中途的旅店，讓我暫時停歇，整裝再出發；許鉅秉老師跟張宗勝老師的熱心關懷，是遠處明燈，在我徬徨無措時給我勇氣向前；郭奕姝老師跟胡凱傑老師在口試時的細心指點，帶著我回顧過去，也放眼未來，同時也象徵著終點的到來。謝謝所有老師們的提點。

好伙伴們：馮家班（千榆、泓均、秉宏、怡雯、文雅、怡珊學姊、律友學長、Jacky 學長）、北交動物園（寶慧、志偉、邦政、雅丹、思豪、醫仲、政憲）、後山朋友（松霈、莉文、怡伶、婉瑜、承穎、Waiting、和平學長、亭坊）、老人 ceo（柏成、岱融、宗憲、玉棠、堃仁、衣服）、哲宇師父、問卷小天后文齡、讀書會 Sam，你們的熱情參與，讓我覺得暴風雨過後總是會有陽光的。友維不時幫我加開 GPS，陪我跌倒、陪我奔跑。還有老爹的笑容、老媽的鼓勵，你們是我的陽光、空氣、水。謝謝你們，我愛你們。

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Sabrina Cheng 謹誌

九十九年七月於交通運輸研究所研究室

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1. Introduction

1.1 Statement of the Problem

Purchase is substantially a form of resource exchange which is related to not only actual but also mental gain and loss. To realize people's latent mental networks, behavioral economics has devoted to manifest the bounded rationality that the actual condition people make decisions instead of full rationality that the supposed condition people would try to seek optimization. Therefore, understanding consumers' underlying psychological aspects lay groundwork for helping marketing researchers and practitioners to interpret concealed decision making processes and construct consumer behavioral patterns. The diversities of psychological aspect not only correspond to large variations of purchase actions in real marketplaces but also reveal the interests and value of related researches.

On the tendency of respect to human mental characteristics, regulatory focus theory has drawn a lot of attentions in both psychological and marketing studies and gave us an insight into what is the impact of perceptions of gain and loss frames on consumers' decision making processes in the last decade. These studies confirm that subjective gain and loss standpoint truly correlate closely with consumers' feelings and judgments while setting their goals, handling information, making purchasing decisions, and assessing their product or service providers.

On the other hand, simulation plays an important role in people's lives. For example, a rainy day might trigger people to think of that "it seems that everyone will be late, so there is no hurry to get there" or "I have a chance to make a good impression on my boss," and then adopt respective following actions. In fact, previous consumer researches find that simulating possible outcomes before and after services performed may lead consumers to make different purchase decisions and to generate different evaluations. The prefactual thinking (i.e., alternative preoutcome predictions) and counterfactual thinking (i.e., alternative postoutcome "what might have been") illustrate silent mental networks would affect the decision making and behavior people displayed again.

Although compared to a decade ago, now we have already recognized abundant results of regulatory focus theory (e.g., Aaker and Lee, 2006; Higgins, 1997; Hong and Lee, 2008; Jain *et al.*, 2006; Pham and Avnet, 2004; Wan *et al.*, 2009) and factors influencing and influenced by prefactual thinking and counterfactual thinking (e.g., Bagozzi and Dholakia, 1999; Roese, 1994; Sanna, 1996) respectively, few researchers have looked into interaction effects of perceptions of loss and gain related to decisions and mental simulation on consumer decision making. Indeed, consumer mental simulation is significantly related to perceptions of gain or loss. Abundant anecdotic evidence and academic finding shows that consumers often spend a lot of their time and effort on anticipation and retrospection of potential gain and loss associated their decisions also. However, little is known about these important phenomena. This critical lack makes it difficult to draw the whole picture of the decision making process of prevention-focused (i.e., perceptions of loss frames) and

promotion-focused (i.e., perceptions of gain frames) consumers. It also disables marketers from dealing with customers more appropriately, from turning dissatisfaction into satisfaction, and from establishing a significant and enduring customer bond.



1.2 Research Purposes

This research focuses on interaction effects of perceptions of loss and gain related to decisions and mental simulation on consumer decision making. We wonder whether the prevention-focused and promotion-focused frames extend to the use and consequences of prefactual and counterfactual thinking, as well as on consumer regret and satisfaction after negative service outcomes. Even though most of previous regulatory focus theory studies consider prepurchase and postpurchase consumer behavior, as we know, there is no findings directly point out the directions (i.e., upward and downward thinking) of prefactual thinking and counterfactual thinking that prevention-focused and promotion-focused consumers naturally and usually adopt.

Consequently, concentrating on individual differences, we attempt to bring to light what is the linkage between regulatory focus and prepurchase and postpurchase simulation? And what is the postpurchase evaluation of different regulatory focus? We wish this research can provider marketers and researchers with richer insight into the prevention-focused and promotion-focused consumers, and the clearer portrait while establishing relative strategies.

2. Literature Review

2.1 Regulatory Focus Theory

“May I help you?” We are familiar with the service scenes that service providers try to satisfy their consumers. Apparently, understanding consumers’ seeks and the differences in consumers’ decision making processes from problem recognition to postpurchase behavior is the primary issue service providers have to address first and last. For example, car salesmen may try to know which do consumers place more importance on, what kind of advertising claim consumers like, and how consumers response to desires or even undesired outcomes after they make the purchase decisions based on salesmen’ recommendations. Among abundant studies that looked into consumers’ seeks and extend to relative behaviors, regulatory focus theory (Higgins, 1997) deliberates the concept by considering people’s essential psychical activities of procuring pleasure and avoiding pain. Therefore, the focal points we discussed below are base on regulatory focus theory ranged over psychology and marketing.

2.1.1 What is regulatory focus theory?

Regulatory focus theory, characterization of hedonic principle with different motivational consequences, distinguishes between prevention and promotion focus. “Regulatory focus” infers that people tend to regulate themselves to reach desired end-states and are sensitive to different outcomes. Specifically, prevention-focused individuals tend to avoid pains by ensuring ought states (e.g. duties, obligations, and responsibilities) and are sensitive to presence/absence of negative outcomes, while promotion-focused individuals tend to gain pleasures by pursuing ideal states (e.g. hopes, wishes, and aspirations) and are sensitive to presence/absence of positive outcomes. For example, child who is trained to be alert for dangers and would be punished because of violation of caretaker’s instruction may regulate himself/herself to follow the instruction due to the fear of caretaker’s penalty, whereas child who is requested to behave in a good manner and would be hugged because of achievement of caretaker’s instruction may regulate himself/herself to follow the instruction due to the expectation of caretaker’s reward. In this case, security-related needs are regarded as prevention focus, whereas nurturance-related needs of children are regarded as promotion focus. In marketing, two women who are about the same age and searching for new cars may choose different cars, because the single and without children one concerns the cheerfulness of driving experience (ideal state), while the other one who has a child would give priority for safety (ought state).

From the point of view of prospect theory that demonstrates loss-aversion

principle, regulatory focus goal orientation moderates people's preference for the status quo (Chernev, 2004). Prevention-focused individuals are more likely to center on minimizing negative outcomes, whereas promotion-focused individuals are more likely to center on maximizing positive outcomes. Consequently, prevention-focused individuals are more likely to highlight losses than promotion-focused individuals (see Figure 1).

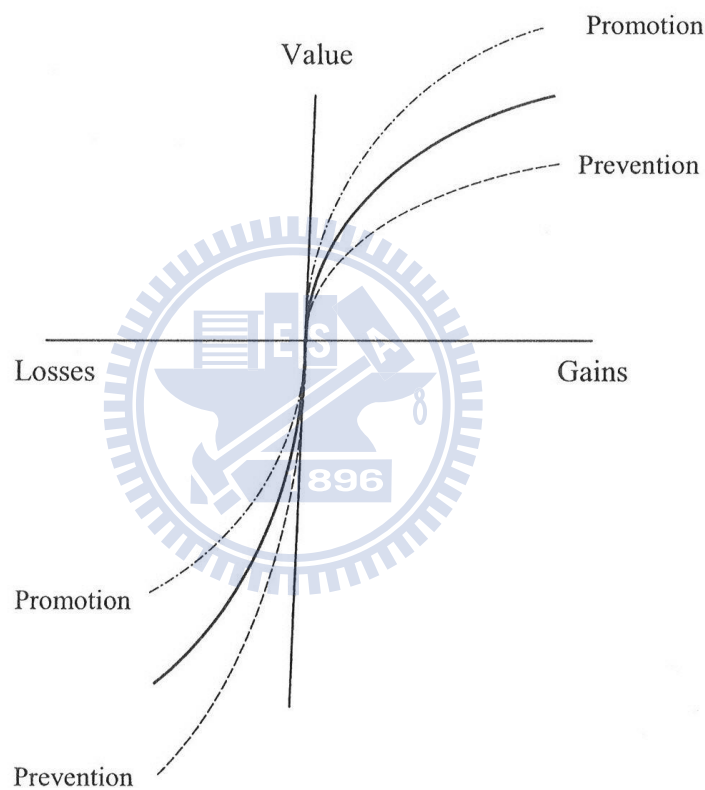


Figure 1 Prospect Theory and Regulatory Focus Theory

Source: Adapted from Chernov, A., "Goal Orientation and Consumer Preference for the Status Quo," *Journal of Consumer Research*, Dec 2004, 558.

Since holding the attractions to marketing scholars in not only how consumer reach their goals but also how can service providers reach or even exceed consumers'

expectation, the differences of people's seeks between prevention and promotion focus in consumers decision processes have been investigated. We discuss these findings as follows.

2.1.2 How regulatory focus influences consumers' decision making processes?

Prevention-focused individuals are concerned with minimizing errors of commission (e.g. vigilance orientation), yet promotion-focused individuals are concerned with minimizing errors of omission (e.g. eagerness orientation) (Crowe and Higgins, 1997). For understanding consumers' decision making processes, previous studies about prevention and promotion focus and regulatory fit are gathered respectively. (see Figure 2 and Figure 3)

Decision making process of prevention focus

At problem recognition stage, ensuring ought states such as duties, obligations, and responsibilities and avoiding making mistakes of commission make prevention-focused individuals more unwilling to deviate from original condition. So once prevention-focused individuals face decision between stability and change, they will prefer to stay in the original conditions (Liberman *et al.*, 1999). Also, the sensibility of negative outcomes of prevention-focused individuals corresponds to highlighting loss and nonloss and holding vigilance orientation in the following

decision making process.

While searching information, prevention-focused individuals favor accuracy presentation format, simultaneous presentation that enabled consumers to take all pieces of information into consideration, because they are more likely to maximize the accuracy of their decision outcomes (Louro *et al.*, 2005; Wan *et al.*, 2009). Moreover, minimal comparative advertising frame can be seen as a kind of guarantee of nonloss that consumers concerned, and has better persuasion effect on prevention-focused individuals than maximal one. (Jain *et al.*, 2006)

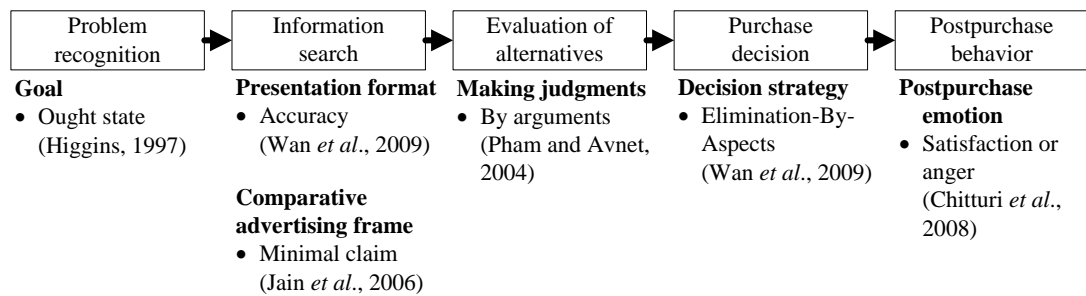
When evaluating alternatives, vigilance triggers people to be more reliant on external data (Bless *et al.*, 1996), adopt safer and better predictive information (Hilton and Fein, 1989), and tend to engage in analytical processes (Friedman and Förster, 2000). Consequentially, prevention-focused individuals are more likely to make judgments by arguments (Pham and Avnet, 2004).

As making purchase decision, prevention-focused individuals are concerned with minimizing errors of commission and try to maximize the accuracy of the decision. Consequently, they would adopt accuracy decision strategy, such as equal weight and Elimination-By Aspects strategy (Wan *et al.*, 2009).

Because prevention-focused individuals attempt to meet ought states and reduce the chance of loss, they would regard the end-states as must-met goals. Products that meet or exceed the expectation of prevention-focused individuals evoke satisfaction

on account of helping them to avoid pain. However, products that fail to meet the expectation evoke anger (Chitturi *et al.*, 2008). Additionally, prevention-focused individuals are more likely to attribute failures to others.

Figure 2 Literature on Prevention Focus



Decision making process of promotion focus

At problem recognition stage, pursuing ideal states such as hopes, wishes, and aspirations and avoiding making mistakes of omission make promotion-focused individuals more open to try something different. So once promotion-focused individuals face decision between stability and change, they will prefer to change the current conditions (Lieberman *et al.*, 1999). Also, the sensibility of positive outcomes of promotion-focused individuals corresponds to highlighting gain and nongain and holding eagerness orientation in the following decision making process.

While searching information, promotion-focused individuals favor progress presentation format, sequential presentation that consumers gain additional

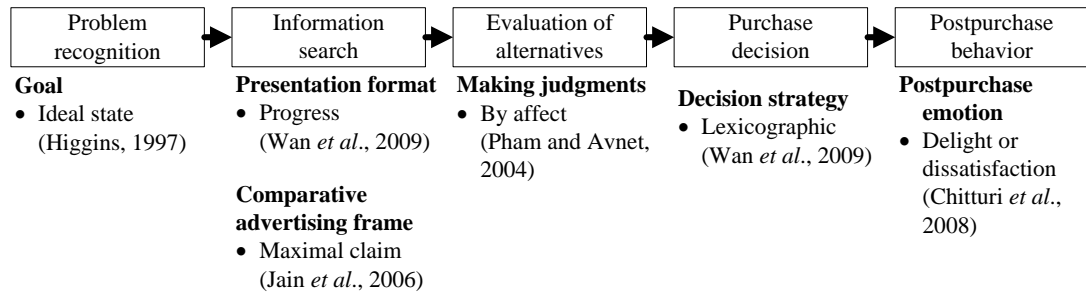
information in sequence and perceive progress toward decision, because they are more likely to minimize the time they use in decision making (Louro *et al.*, 2005; Wan *et al.*, 2009). Moreover, maximal comparative advertising frame can be seen as a superiority claim of gain, and then has better persuasion effect on promotion-focused individuals than minimal one. (Jain *et al.*, 2006)

When evaluating alternatives, eagerness triggers people to be more reliant on internal inputs (Bless *et al.*, 1996), encourage people to use heuristics, and utilize their creativity (Friedman and Förster, 2000). Consequentially, promotion-focused individuals are more likely to make judgments by affects (Pham and Avnet, 2004).

As making purchase decision, promotion-focused individuals are concerned with minimizing errors of omission and try to facilitate the progress of making decision. Consequently, they would adopt progress decision strategy, such as lexicographic strategy (Wan *et al.*, 2009).

Because promotion-focused individuals attempt to fulfill ideal states and increase the chance of gain, they would regard the end-states as aspire-to-met goals. Products that meet or exceed the expectation of promotion-focused individuals enhance high-arousal feeling of excitement and cheerful associated with delight. However, products that fail to meet the expectation merely evoke low-arousal feelings of sadness and disappointment leading to dissatisfaction (Chitturi *et al.*, 2008).

Figure 3 Literature on Promotion Focus



Regulatory fit

Match between the goal pursuit strategy and their goal orientation, namely regulatory fit, leads to “feel right” and strengthen their engagement (Aaker and Lee, 2006; Avnet and Higgins, 2006). Precisely, prevention-focused individuals experience regulatory fit when they involve in duties, obligations, and responsibilities, accuracy information presentation format, minimal comparative advertising frame, making judgments by argument, and accuracy decision strategy, but otherwise experience regulatory nonfit. In contrast, prevention-focused individuals experience regulatory fit when they involve in hopes, wishes, and aspirations, progress information presentation format, maximal comparative advertising frame, making judgments by affect, progress decision strategy, but otherwise experience regulatory nonfit. People who experienced regulatory fit have more positive attitude toward products, more confidence in their judgment strength, and higher value of products they assessed (Lee and Aaker, 2004).

2.1.3 Why people have regulatory focus?

The antecedences of regulatory focus can be divided into chronic and temporary. Chronic is the differences from person to person as their nature. Temporary is derived from situation induced orientation, such as self-view. People with a more accessible interdependent self-view are more likely to engage in prevention focus, while with a more accessible independent self-view are more likely to engage in promotion focus (Aaker and Lee, 2001). Although Hong and Lee (2008) indicate that while choosing fit strategy, the effect of people with their chronic regulatory focus is no better than those assigned to the temporary regulatory focus, the understanding of difference between chronic and temporary is still limited (see Table 1).

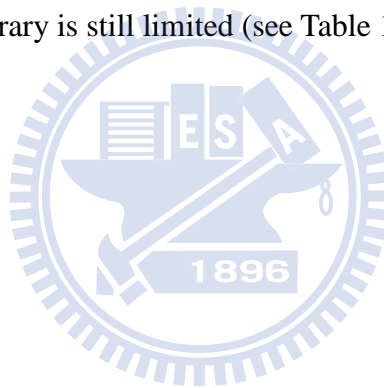


Table 1 Regulatory Focus Theory in Marketing

Representative study	Topic	Important variables	Sample
Hong and Lee (2008)	Regulatory fit	Regulatory fit, self-regulation	Physical endurance (E1) Health-care (snack choosing) (E2,3) Health-care (hepatitis testing) (E4)
Jain <i>et al.</i> (2006)	Regulatory focus	Regulatory focus, comparative advertising frame	Health-care (toothpaste) (E1) Health-care (nutrition bar) (E2,3)
Aaker and Lee (2001)	Regulatory focus	Self-view, regulatory focus, persuasion	Health-care (juice) (E1) Tennis (E2,3,4)
Chitturi <i>et al.</i> (2008)	Regulatory focus	Design benefits, regulatory focus, satisfaction	Cell phone (S1) Laptop computer (S2) Car (S3)
Chernev (2004)	Goal orientation	Goal orientation Preference for the status quo	Digital camera (E1) Fund investment (E2)
Louro <i>et al.</i> (2005)	Self-regulatory goals	Self-regulatory goals Pride-repurchase Information requirements	Laptop computer (S1,2) Shoes (S3)
Aaker and Lee (2006)	Regulatory fit	Regulatory fit	-
Wan <i>et al.</i> (2009)	Regulatory focus	Regulatory focus, Decision strategy, Presentation format	Cell phone (S1,2,4) Computer (S3)

2.2 Prefactual and Counterfactual Thinking

For most consumers in service delivery processes, simulating alternative possible outcomes, both before and after services performed, plays an important role in their decision making processes and evaluations. Prefactual thinking and counterfactual thinking, thoughts like “if only” or “what if” conditions, infer simulating alternative possible outcomes before and after the fact respectively. Prior studies have recognized additive versus subtractive and upward versus downward prefactual and counterfactual thinking, however, we concentrate on the directions of simulation, upward and downward, underlining the gap between actually happened state and simulated better or worse one (Markmen *et al.*, 1993; Roese, 1994).



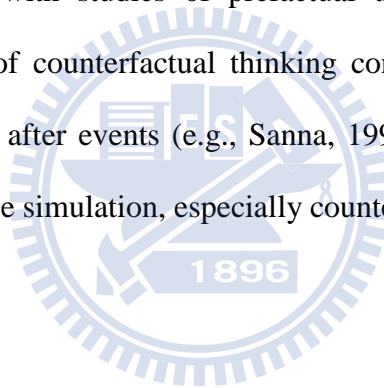
2.2.1 What is the upward and downward prefactual and counterfactual thinking?

Referring to study 1 in Sanna's research (1996), asked students to imagine that they are preparing for an upcoming exam, what antecedents and consequences they could think of? "I wish I could have more time reading before the exam" and "if I can only take better class notes" before taking the exam, and "If I just paid more attention to Chapter 2, I would have did a lot better" and "I think that I would have gotten a better grade if I didn't have another exam that day" after knowing the grade demonstrate upward prefactual and counterfactual thinking that simulating better alternatives than reality. At the same time, "I could fail if I don't get my final studying in" and "If I didn't like psychology so much, I'd probably do pretty bad" before taking the exam and "At least I passed... I didn't think this class would be so difficult" and "I'm happy with my grade because I know other people did worse than I did" after knowing the grade demonstrate downward prefactual and counterfactual thinking that simulating worse alternatives than reality.

Different simulating directions have different functions. Exactly, upward counterfactual thinking rises negative mood, while downward counterfactual thinking rises positive mood (Markmen *et al.*, 1993; Roese, 1994). Previous researches also indicate that upward thinking can serve as the basis of future works, whereas downward thinking may enhance self-esteem (Markmen *et al.*, 1993; Roese, 1994; Sanna, 1996; Sanna *et al.*, 1999). The salient notion is the trade-off relationship

between preparation for the future and self-esteem enhancement. Upward thinking enables people to deal with future works but abandons the chance to feel better, in contrast, downward thinking allows people feel more satisfied but abstains from preparation for the future (Buunk *et al.*, 1990; Markmen *et al.*, 1993; Roese, 1994). Moreover, it appears that prefactual and counterfactual thinking are similar to social comparison in not only the direction of upward and downward, also the elicitation of coping with future and self-esteem enhance effects (e.g., Wood, 1989; Taylor *et al.*, 1990).

However, researches centered on counterfactual thinking seem to be relatively plentiful when compared with studies of prefactual thinking. In fact, prefactual thinking is the extension of counterfactual thinking concept, but distinct from the activated timing, before or after events (e.g., Sanna, 1996). Then, the following we discuss how to activate these simulation, especially counterfactual thinking.



2.2.2 How to activate counterfactual thinking?

In general, people would not activate counterfactual thinking unreasonably. While experiencing negative events or perceiving the happened outcomes might be changed a lot if getting another chance, people would be easier to induce simulation of alternative possible outcomes (Markmen *et al.*, 1993; Roese, 1994). Nevertheless, Sanna *et al.* (1999) indicate that negative and positive moods not only serve as consequence, but also act as antecedent of counterfactual thinking. According to “feelings-as-information” views (Martin *et al.*, 1993), negative affect may signal existence of problems, while positive affect may reveal everything is fine. That is, negative mood corresponds to dissatisfaction in life, while positive mood corresponds to satisfaction (Schwarz and Clore, 1983). Both negative and positive moods can serve as information and activate counterfactual thinking when mood serve as a comparable anchor or people want to maintain the desired conditions.

2.2.3 Why people engage in different simulations?

Due to the commonness and the follow-up influences, several studies have tried to find the distinguishing simulation thinking features among different naturally personal characteristics or situational factors. We have a brief review of these findings as follows.

High self-esteem versus low self-esteem

People with different level of self-esteem may have different reactions to successes or failures (e.g., Brown and Dutton, 1995). Although both high self-esteem and low self-esteem people generate more downward than upward counterfactual thinking when response to positive moods, they have distinct counterfactual thinking directions when react to negative moods because high self-esteem people are more able to repair their moods. So while in negative moods, high self-esteem people generate more downward than upward counterfactual thinking, whereas low self-esteem people agree more upward than downward thinking. (Sanna *et al.*, 1999)

Defensive Pessimism versus Optimism

The differences in simulation alternatives may come from the distinct characteristics of defensive pessimists and optimists. That is, defensive pessimists set low expectations and enhance their motivation by anxiety, whereas optimists set high expectations and protect their self-esteem (Norem and Illingworth, 1993; Showers, 1992). Therefore, defensive pessimists engage in more upward prefactual thinking

than optimists do, whereas optimists engage in more downward prefactual thinking than defensive pessimists do in response to a course exam. While manipulate prefactual thinking directly, defensive pessimists still prefer upward prefactual thinking; however, optimists prefer no prefactuals. Once failures occurred, optimists generate downward counterfactual thinking after failures, but prefer not to engage in much counterfactual thinking as their preparatory strategy for the future when events are repeatable. In contrast, defensive pessimists usually prefer no counterfactual thinking after failures, yet use upward counterfactual thinking when they believe that they have the second chance to encounter the same situations (Sanna, 1996).

Bronze versus silver medalists at the 1992 Summer Olympics

Being one of the best in the world is a gain, or a loss? Every athlete is eager to win gold medal, but there is only one winner in athletic competition. Although gold, silver, and bronze medalists all represent the top in the world, they may have distinct mental simulation phenomena and satisfaction. Silver medalists are likely to focus on they almost win the gold medal, whereas bronze medalists are likely to concentrate on at least they occupy the third place and earn a medal rather than get nothing. That is, silver medalists tend to engage in upward counterfactual thinking, whereas bronze medalists prefer downward counterfactual thinking. Then, Silver medalists seem to be less satisfied with their performances than bronze medalists do (Medvec *et al.*, 1995). (see Table 2)

Table 2 Studies in Prefactual and Counterfactual Thinking

Representative study	Topic	Important variables	Sample
Sanna <i>et al.</i> (1999)	Counterfactual thinking	Mood, self-esteem, counterfactual thinking	A job as a lab assistant Meeting strangers at a wedding Interacting on a first date Making a class presentation Interviewing for a job Taking a class exam
Sanna (1996)	Prefactual thinking, counterfactual thinking	Defensive Pessimism, Optimism, Prefactual thinking, Counterfactual thinking	Taking a exam (S1) Anagram task (S2,4) Social situation (S3)
Medvec <i>et al.</i> (1995)	Counterfactual thinking	Counterfactual thinking, satisfaction	1992 Olympics 1994 Empire State Games

3. Conceptual Model and Hypotheses

Due to the lack of understanding of how regulatory focus influences consumer mental simulation, the present research devotes to provide insight into how prevention and promotion focus arouse mental simulations (i.e., prefactual thinking and counterfactual thinking). We discuss the conceptual model and hypotheses as below.

3.1 Study 1: Regulatory Focus and Prefactual Thinking

People may simulate possible better or worse alternatives before making decision based on their personal identities. According to regulatory focus theory, prevention-focused individuals are more sensitive to insuring “correct rejections” and prefer to stay in stable conditions, whereas promotion-focused individuals are primarily concerned with minimizing “errors of omission” and prefer to change. Additionally, Shah and Higgins (1997) proposed that, in expectancy-value model, prevention-focused individuals reach their goals because the increased value of the goals suggests the necessity they must have to do without respect to the ease or likelihood of goal attainment. That is, prevention-focused individuals are careful to maintain the original conditions until they have no choice but to seek safety solutions that ensure avoiding pains. Due to these psychological characteristics, we propose that prevention-focused individuals, when choosing a service provider, would engage in more preparatory upward prefactual thinking in order to avoid any opportunities to choose bad service providers and prepare for losses or nonlosses in following service

delivery processes. On the other hand, promotion-focused individuals are more likely to maximize the value and expectancy of the services and pursuit their goals as accomplishments. Namely, promotion-focused individuals are inclined to accept new or unfamiliar products and services as long as they have the chance to gain pleasures. So their alternative expected performance outcome would more likely be in a downward direction in order to avoid missing any opportunities to choose good service providers and enhance their self-esteem for pushing them to make purchase decisions. Therefore, we predict:

H1a: While simulating alternatives before making purchase decisions, prevention-focused consumers are more likely to engage in upward prefactual thinking than downward prefactual thinking.

H1b: While simulating alternatives before making purchase decisions, promotion-focused consumers are more likely to engage in downward prefactual thinking than upward prefactual thinking.

3.2 Study 2: Regulatory Focus and Counterfactual thinking

Service outcomes may be better than expected, worse than expected, or as expected. Although both good and bad moods can trigger counterfactual thinking, we are more interested in the consequences of negative outcomes because of the serious impacts such as negative word-of-mouth and even consumer switching (Keaveney, 1995).

Regulatory focus theory suggests that prevention-focused individuals more concentrate on oughts which they have to meet, whereas promotion-focused individuals usually hope to attain their ideals. Actual-ought discrepancies, failures to attain a minimal goal, should provide more intense pain than actual-ideal discrepancies, failure to attain a maximal goal (Strauman and Higgins, 1988). In other words, service failures more easily cause prevention-focused individuals to activate upward counterfactual thinking to simulate possible alternatives (e.g., other good service providers) to achieve their initial expectation for exhibiting deviation from ought states and enduring losses than promotion-focused individuals. In contrast, it is more easily for promotion-focused individuals to activate downward counterfactual thinking than prevention-focused individuals because of comparative slight impact of nongains.

H2a:After experiencing negative outcomes in services, prevention-focused consumers are more likely to engage in upward counterfactual thinking than downward counterfactual thinking.

H2b:After experiencing negative outcomes in services, promotion-focused consumers are more likely to engage in downward counterfactual thinking than upward counterfactual thinking.

Additionally, actual-ought discrepancies and actual-ideal discrepancies should bring different postpurchase evaluations. People failed to meet their oughts are more likely to engage in agitation emotions, such as feeling uneasy, threatened, or afraid, whereas people failed to attain their ideals are more likely to experience dejection emotions, such as disappointment, dissatisfaction, or sadness (Higgins, 1987). Then, prevention-focused individuals are more regretful for the failures and less satisfied with the current service providers than would promotion-focused individuals. Therefore, we hypothesize:

H3: After experiencing negative outcomes in services, prevention-focused consumers would feel more regretful than promotion-focused consumers do.

H4: After experiencing negative outcomes in services, prevention-focused consumers would feel less satisfied than promotion-focused consumers do.

4. Methodology

4.1 Study 1: Regulatory Focus and Prefactual Thinking

4.1.1 Design

The goal of study 1 was to test our prefactual thinking predictions as H1a and H1b. We wanted the target product to be general and familiar to consumers. Given that bicycle is popular and prevalent (e.g., average 1.81 bicycles per household vs. average 1.44 motorcycles per household, Ministry of Transportation and Communications, 2009), so bicycle was chosen as the target product in present research..

We manipulated temporary rather depended on chronic regulatory focus because different situations might lead different regulatory focus. Therefore, chronic regulatory focus was unsurely identical with participant real regulatory focus under our scenario. Referring to previous studies, the scenario used the phrase “avoid losing” and the word “cure” to evoke prevention and the word “gain” and “action” to evoke promotion (Dholakia *et al.*, 2006; Louro *et al.*, 2005). The first scenario was as follow:

According to survey of MOTC (Ministry of Transportation and Communications), there are more than 10 million bicycle riders in Taiwan last year. Bicycle is somewhere

one of the most popular merchandise in Taiwan. In this trend, you intend to buy a bicycle.

Due to the flexible price of bicycle, you know that you might spend more [less] money on it. To avoid losing [succeed in gaining], you want to avoid paying extra money [take advantage of discount] while buying bicycle. And considering “there is no free lunch [fish or cut bait],” you tend to cure of errors to ensure avoiding losing [take action to ensure succeeding in gaining].

Then, the second scenario described a real marketplace condition that provides inducer for participants to activate prefactual thinking. The second scenario was as follow:

After surfing the network and reading magazine, you focused on a nice bicycle which has satisfying design, performance, and services. You decided to buy this bicycle, but were still thinking about the price.

You are now at Yi-ran bike shop. You see the bicycle that you want at a reduced price of NT\$4,300, instead of its regular price of NT\$5,000. That is, you can avoid paying an extra NT\$700 [gain NT\$700]. Meanwhile, you know that there is another bicycle shop nearby, they also have this bicycle. However, you have no idea about the price of the same bicycle there.

4.1.2 Subject and Procedure

We randomly assigned participants to prevention focus or promotion focus scenario. Participants were asked to imagine that they were in the situations. After reading the first scenario aimed to manipulate regulatory focus, participants completed manipulation checks to ensure the success. Then participants were asked to read the second scenario, and reported their prefactual thinking.

4.1.3 Measures

Manipulation checks. Participants completed the six-item check on manipulation for regulatory focus (Roese *et al.*, 1999): “Some situations involve pursuing something we want, whereas others involve trying to avoid something we don’t want. How would you describe this situation?” The left anchor of the 7-point scale expressed prevention focus relevance such as *avoiding*, and right anchor expressed promotion focus relevance such as *pursuing*.

Prefactual thinking. Although majority of previous researches adopted open-ended questions to activate prefactual thinking, the obscure frequency of each thought brought limitation in these studies. At the same time, as we know, it still lacked for general prefactual thinking scale. To measure this dependent variable, we conducted pretest (see Appendix A) by recruiting 30 graduate students to describe alternatives that were worse or better than what they expected will actually happen that might

affect the upcoming outcome of buying bicycle after reading the scenarios. Also, we referred to Counterfactual Thinking for Negative Events Scale (CTNES; Rye *et al.*, 2008) that was designed to assess counterfactual thoughts in response to past negative events to form prefactual thinking measures on a ten-item, seven-point scale (1=“never” and 7= “very often”) (see Appendix B).



4.2 Study 2: Regulatory Focus and Counterfactual Thinking

4.2.1 Design

This study examined whether regulatory focus can influence consumer counterfactual thinking after experiencing negative event. We focus on postpurchase mental simulation of prevention-focused and promotion-focused consumers, and continued to manipulate regulatory focus as in study 1. The first scenario was as follow:

Bicycle is somewhere one of the most popular merchandise in Taiwan. In this trend, you intend to buy a bicycle. To avoid losing [succeed in gaining], you want to avoid paying extra money [take advantage of discount] while buying bicycle.

Last week, you bought the bicycle that you want at a reduced price of NT\$4,300, instead of its regular price of NT\$5,000, because you wanted to avoid paying an extra NT\$700 [gain NT\$700].

After that, the second scenario described the negative event that consumer found it cheaper someplace else to elicit counterfactual thinking. The second scenario was as follow:

Last week, you bought the bicycle that you want at a reduced price of NT\$4,300, instead of its regular price of NT\$5,000, because you wanted to avoid paying an extra

NT\$700 [gain NT\$700]. However, now you find that the same bicycle is sold for \$4,000 someplace else.

4.2.2 Subject and Procedure

As in study 1, we randomly assigned participants to prevention focus or promotion focus scenario. Participants were asked to imagine that they were in the situations. After reading the first scenario, participants completed manipulation checks. Then participants were asked to read the second scenario, and reported their counterfactual thinking.

4.2.3 Measures

Manipulation checks. Participants completed the manipulation check on regulatory focus as in study 1.

Counterfactual thinking. Counterfactual thinking was assessed by Counterfactual Thinking for Negative Events Scale on a ten-item, seven-point scale (1= "never" and 7= "very often").

Regret. Regret was measured on a five-item, seven-point scale (Creyer and Ross, 1999; Oliver, 1997; Tsiras, 1998).

Satisfaction. Satisfaction was measured on a five-item, seven-point scale (Fornell, 1992; Oliver, 1977, 1997; Tsiros, 1998) (see Appendix C).



5. Results

5.1 Study 1: Regulatory Focus and Prefactual Thinking

From a total of 70 questionnaires of study 1, none of them contained unanswered questions. All of these questionnaires are usable consisting of 38 male and 32 female. Participants' ages ranged from below 19 years of age to 39 years of age, with 85.7% between ages 20 and 29. Furthermore, 90% of participants are students and 7.1% of them are wage earners. (see Table 3)

All Cronbach's alphas of each construct in study 1 were over the threshold value 0.70, suggesting acceptable internal consistency of multiple items for each construct (see Table 4).

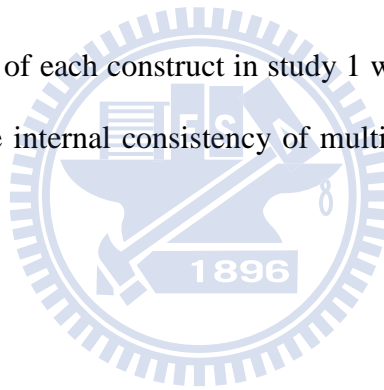


Table 3 Descriptive Statistics in Study 1

Gender	Male		Female	
Frequency	38		32	
Percent	54.3%		45.7%	
Age	Below 19 years of age	20-29 years of age	30-39 years of age	
Frequency	2	60	8	
Percent	2.9%	85.7%	11.4%	
Occupation	Student	Wage earner		Others
Frequency	63	5		2
Percent	90.0%	7.1%		2.9%
Income	Less than NT\$10,000	NT\$10,000-30,000	NT\$30,000-50,000	More than NT\$50,000
Frequency	35	25	6	4
Percent	50.0%	35.7%	8.6%	5.7%

Table 4 Results of Cronbach's Alpha in Study 1

Construct	Cronbach's Alpha
RF	0.930
Pup	0.713
Pdown	0.756

Manipulation checks. We use SPSS 12.0 software to conduct manipulation check.

The manipulation regarding regulatory focus was found to be effective, in that the

prevention situations were indeed seen to reflect greater prevention orientation ($M_{\text{prevention}} = 2.35$) than did the promotion situations ($M_{\text{promotion}} = 5.58$), $t = 17.082$, $p=0.000$.

Prefactual thinking. Participants' prefactual mental simulations were analyzed using paired-t-test. Prevention-focused consumers generate more upward prefactual thinking ($M_{\text{upward}} = 5.43$) than downward ($M_{\text{downward}} = 3.00$), $t = 11.859$, $p=0.000$. And promotion-focused consumers generate more downward prefactual thinking ($M_{\text{downward}} = 5.08$) than upward ($M_{\text{upward}} = 3.52$), $t = -7.643$, $p=0.000$ (see Figure 4). Therefore, hypotheses H1a and H1b are significantly supported.

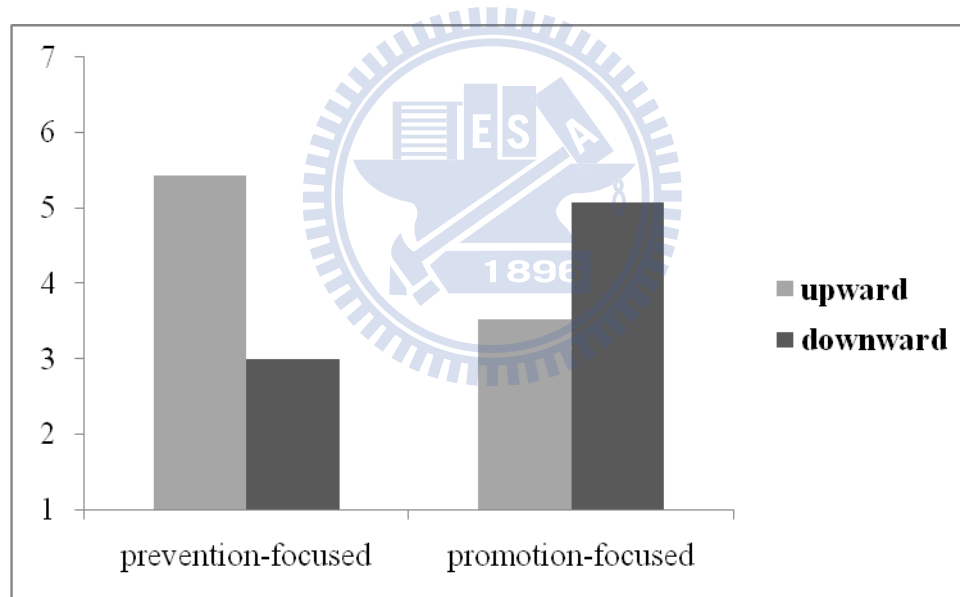


Figure 4 Prefactual Thinking in Study 1

5.2 Study 2: Regulatory Focus and Counterfactual Thinking

From a total of 116 questionnaires of study 2, none of them contained unanswered questions. All of these questionnaires are usable consisting of 74 male and 42 female. Participants' ages ranged from below 19 years of age to 39 years of age, with 65.5% between ages 20 and 29. Furthermore, 77.6% of participants are students and 2.6% of them are teachers. (see Table 5)

All Cronbach's alphas of each construct in study 1 were over the value 0.90, suggesting good internal consistency of multiple items for each construct (see Table 6).



Table 5 Descriptive Statistics in Study 2

Sex	Male		Female	
Frequency	74		42	
Percent	63.8%		36.2%	
Age	Below 19 years of age	20-29 years of age	30-39 years of age	
Frequency	34	76	6	
Percent	29.3%	65.5%	5.2%	
Occupation	Student	Teacher	Military man/ Policeman	Wage earner
Frequency	90	3	2	21
Percent	77.6%	2.6%	1.7%	18.1%
Income	Less than NT\$10,000	NT\$10,000-30,000	NT\$30,000-50,000	
Frequency	70	29	17	
Percent	60.3%	25%	14.7%	

Table 6 Results of Cronbach's Alpha in Study 2

Construct	Cronbach's Alpha
RF	0.936
Pup	0.917
Pdown	0.912
Reg	0.917
Sat	0.918

Manipulation checks. Participants who were exposed to the prevention scenario felt that the situation was closer to the prevention focus relevance anchor ($M_{\text{prevention}} = 2.14$) while those who saw the promotion scenario perceived the situation to be closer to promotion focus relevance anchor ($M_{\text{promotion}} = 5.57$), $t = -26.877$, $p=0.000$. The manipulation was found to be successful.

Counterfactual thinking. We used paired t-test to examine the impact of regulatory focus on the counterfactual thinking. Prevention-focused consumers generate more upward counterfactual thinking ($M_{\text{upward}} = 5.27$) than downward ($M_{\text{downward}} = 3.38$), $t = 9.552$, $p=0.000$. And promotion-focused consumers generate more downward counterfactual thinking ($M_{\text{downward}} = 5.31$) than upward ($M_{\text{upward}} = 2.92$), $t = 13.705$, $p=0.000$ (see Figure 5). Therefore, hypotheses H2a and H2b are significantly supported.

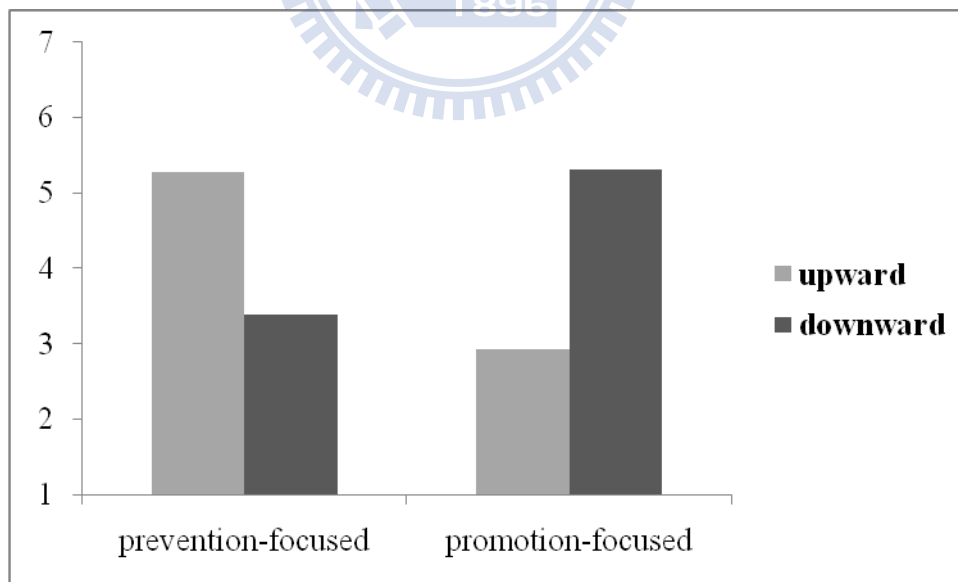


Figure 5 Counterfactual Thinking in Study 2

Regret. We utilized independent sample t-test to examine that whether regulatory focus extends to regret after negative service outcomes. Prevention-focused consumers ($M_{\text{Reg_prevention}} = 5.26$) are more regretful than promotion-focused consumers ($M_{\text{Reg_promontion}} = 3.23$) do, $t = 11.035$, $p=0.000$ (see Figure 6). Consequently, hypotheses H3 is significantly supported.

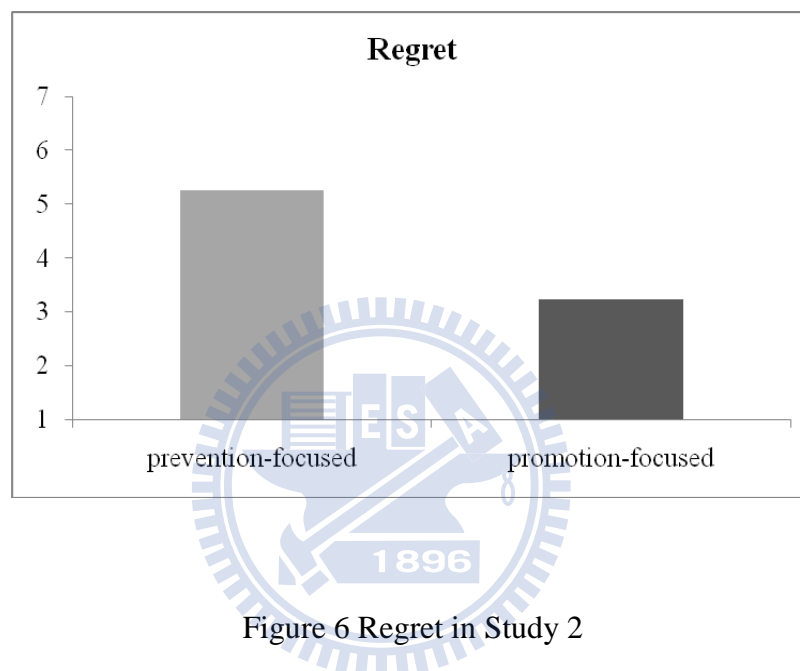


Figure 6 Regret in Study 2

Satisfaction. We examine that whether regulatory focus extends to satisfaction after negative service outcomes by using independent sample t-test. Prevention-focused consumers ($M_{\text{Sat_prevention}} = 2.95$) are more satisfied than promotion-focused consumers ($M_{\text{Sat_promontion}} = 4.54$) do, $t = 11.368$, $p=0.000$ (see Figure 7). Therefore, hypotheses H4 is significantly supported.

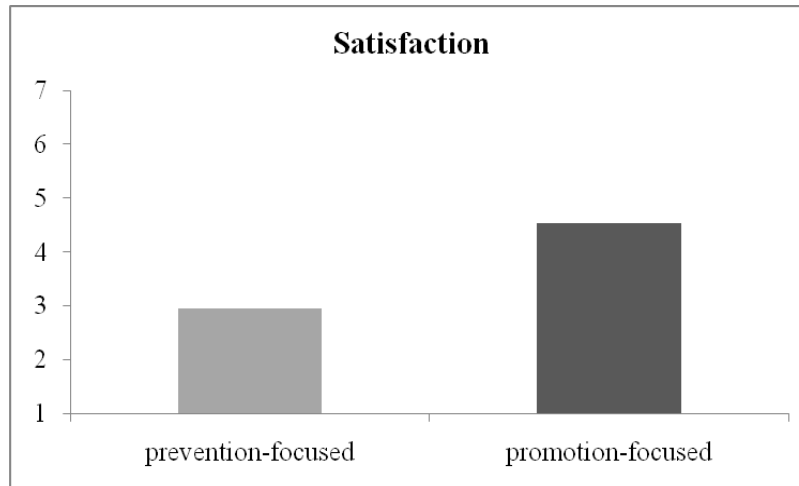


Figure 7 Satisfaction in Study 2

Analysis of other variables

In order to uncover whether other variables in current research, that is, people's demographic characteristics, have an impact on their simulation thinking directions, regret, and satisfaction, we try to center on the suspicious variables, gender and incomes, by utilizing independent sample t-test. Study 1 and study 2 pointed out that regulatory focus played an important role in prefactual thinking, counterfactual thinking, regret, and satisfaction before purchase and after negative service outcome (see Table 7 and 8). Considering sample size, data in study 2 was chosen to be rehandled. The results showed that gender had no significant impact on counterfactual thinking, regret, and satisfaction (see Table 9 and 10). Although occupation can be seen as a possible variable in consumer behavior researches, income was chosen to be rehandled here rather students versus other occupations because the current diverse student sample which consists of undergraduate students, graduate students, Ph. D

students, and EMBA students. The results showed that participants with less than NT\$10,000 income per month felt less satisfied than participants with more than NT\$10,000 income per month in prevention-focused condition. However, participants with less than NT\$10,000 income per month engaged in more downward counterfactual thinking than participants with more than NT\$10,000 income per month in promotion-focused condition (see Table 11 and 12). Consequently, gender and incomes had no or comparative little impacts on simulation thinking, regret, and satisfaction.



Table 7 Analysis Results of Study 1

Variables	Manipulation check		Pup		Pdown	
Manipulation	Prevention	Promotion	Prevention	Promotion	Prevention	Promotion
N	35	35	35	35	35	35
Mean	2.35	5.58	5.43	3.52	3.00	5.08
Std. Deviation	0.84	0.73	0.64	0,97	1.07	0.82
Std. Error Mean	0.14	0.12	0.11	0.16	0.18	0.14
Sig.	0.149		-	-	-	-
T	17.082		-	-	-	-

Table 8 Analysis Results of Study 2

Variables	Manipulation check		Cup		Cdown		Reg		Sat	
Manipulation	Prevention	Promotion	Prevention	Promotion	Prevention	Promotion	Prevention	Promotion	Prevention	Promotion
N	58	58	58	58	58	58	58	58	58	58
Mean	2.14	5.57	5.27	2.92	3.38	5.31	5.26	3.23	2.95	4.54
Std. Deviation	0.64	0.73	0.85	0.93	1.16	0.91	0.91	1.06	0.75	0.76
Std. Error Mean	0.08	0.10	0.11	0.12	0.15	0.12	1.06	0.14	0.10	0.10
Sig.	0.102		-	-	-	-	0.136		0.907	
T	26.877		-	-	-	-	11.035		11.368	

Table 9 Gender Analysis in Prevention-Focused Scenario of Study 2

Variables	Manipulation check		Cup		Cdown		Reg		Sat	
Gender	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
N	37	21	37	21	37	21	37	21	37	21
Mean	2.16	2.10	5.42	5.00	3.25	3.59	5.34	5.10	2.76	2.96
Std. Deviation	0.64	0.64	0.87	0.76	1.15	1.18	0.81	1.07	0.84	0.91
Std. Error Mean	0.11	0.14	0.14	0.17	0.19	0.26	0.13	0.23	0.14	0.20
Sig.	0.787		0.548		0.757		0.499		0.803	
T	0.327		1.837		1.059		0.944		0.853	

Table 10 Gender Analysis in Promotion-Focused Scenario of Study 2

Variables	Manipulation check		Cup		Cdown		Reg		Sat	
Gender	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
N	37	21	37	21	37	21	37	21	37	21
Mean	5.56	5.60	2.87	3.02	5.42	5.13	3.18	3.30	4.60	4.50
Std. Deviation	0.75	0.73	0.88	1.03	0.90	0.93	1.14	0.94	0.96	0.82
Std. Error Mean	0.12	0.16	0.14	0.23	0.15	0.20	0.19	0.20	0.16	0.18
Sig.	0.664		0.314		0.424		0.351		0.288	
T	0.214		0.583		1.136		0.414		0.405	

Table 11 Income Analysis in Prevention-Focused Scenario of Study 2

Variables	Manipulation check		Cup		Cdown		Reg		Sat	
Income	Less than NT\$10,000	More than NT\$10,000	Less than NT\$10,000	More than NT\$10,000	Less than NT\$10,000	More than NT\$10,000	Less than NT\$10,000	More than NT\$10,000	Less than NT\$10,000	More than NT\$10,000
N	35	23	35	23	35	23	35	23	35	23
Mean	2.16	2.10	5.18	5.40	3.22	3.61	5.18	5.37	2.61	3.18
Std. Deviation	0.59	0.71	0.88	0.80	1.08	1.27	0.95	0.86	0.71	0.97
Std. Error Mean	0.10	0.15	0.15	0.17	0.18	0.27	0.16	0.18	0.12	0.20
Sig.	0.416		0.856		0.448		0.994		0.168	
T	0.356		0.981		1.240		0.800		2.632	

Table 12 Income Analysis in Promotion-Focused Scenario of Study 2

Variables	Manipulation check		Cup		Cdown		Reg		S	
Income	Less than NT\$10,000	More than NT\$10,000	Less than NT\$10,000	More than NT\$10,000	Less than NT\$10,000	More than NT\$10,000	Less than NT\$10,000	More than NT\$10,000	Less than NT\$10,000	More than NT\$10,000
N	35	23	35	23	35	23	35	23	35	23
Mean	5.69	5.39	2.83	3.07	5.60	4.88	3.04	3.51	4.69	4.37
Std. Deviation	0.71	0.75	0.77	1.13	0.68	1.06	1.00	1.11	0.87	0.94
Std. Error Mean	0.12	0.16	0.13	0.24	0.11	0.22	0.17	0.23	0.15	0.20
Sig.	0.642		0.041		0.054		0.726		0.769	
T	1.540		0.966		3.167		1.688		1.334	

6. Discussion and Implication

6.1 General Discussion

Prospect theory illustrates how individuals evaluate losses and gains in realistic world instead of in the assumption of full rationality. Regulatory focus theory further describes that the sensitivity of gains and losses would be different from person to person. That is, prevention-focused individuals are more sensitive to losses, and adopt loss/nonloss frame, whereas promotion-focused individuals are more sensitive to gains, and adopt gain/nongain frame. Although previous researches have already recognized abundant results of regulatory focus theory, findings of mental simulation of regulatory focus are still rare. Therefore, current research tries to provide an insight into what is the impact of perceptions of gain and loss frames on consumers' mental simulation and evaluation after buying.

The two studies reported in this research provided converging evidence that regulatory focus actually influenced prefactual and counterfactual thinking and postpurchase evaluation. In study 1, prevention-focused consumers engaged in more upward prefactual thinking, whereas promotion-focused consumers engaged in more downward prefactual thinking before making decision of purchasing a bicycle. Study 2 demonstrated that prevention-focused consumers were more likely to elicit upward counterfactual thinking, whereas promotion-focused consumers were more likely to elicit downward counterfactual thinking after finding that the same bicycle was

cheaper someplace else. Moreover, study 2 also indicated that after experiencing negative events, prevention-focused consumers were less satisfied and more regretful than promotion- focused consumers did.



6.2 Theoretical Contribution

Regulatory Focus and Prefactual Thinking

Building on the work of Higgins (1997), Shah and Higgins (1997), Crowe and Higgins (1997), and Chernev (2004), we proposed that prevention-focused consumers engaged in more upward than downward prefactual thinking to minimize errors of commission and ensure avoid pains, whereas promotion-focused consumers engaged in more downward than upward prefactual thinking related to the tendency to minimize errors of omission and maximize the value and expectancy of the products or services while seeking pleasures. The results of current research were consistent with our predictions and reflected common marketplace circumstance that consumers might face wide choices among alternatives, and usually not be capable of or willing to ask for optimization because of resource limitation but activate their mental preoutcome predictions.

The observed impact of regulatory focus on prefactual thinking documents that prevention and promotion focus system significantly influences prepurchase mental decision making process, as suggested by previous researches (e.g., Hong and Lee, 2008; Jain *et al.*, 2006; Wan *et al.*, 2009). To the best of our knowledge, this is the first research to center on the correspondence between regulatory focus (prevention focus and promotion focus) and prefactual thinking (upward and downward).

Regulatory Focus and Counterfactual Thinking

The current research contributes to extant literature on different fronts. First, Roese *et al.* (1999) suggested that while failing, prevention-focused individuals were more likely to generate subtractive counterfactual thinking because they concerned about commissions that threaten the status quo, and promotion-focused individuals were more likely to generate additive counterfactual thinking because they concerned about acquisition of the desired goals. The current research expands the understanding of regulatory focus based on the notion that both upward and additive counterfactual thinking induce relatively greater success-facilitating intentions and behaviors than downward or subtractive counterfactual thinking (Roese and Olson, 1997).

Second, in study 2, we examined the postpurchase evaluation. The finding also advances the literature by testing consumer regret and satisfaction hypothesis (as H3 and H4) to obtain influence of regulatory focus on consumer perceptions after negative outcomes in services.

Combined, all of these findings made a valuable theoretical contribution by giving an insight into the influence of regulatory focus on simulation thinking, regret, and satisfaction in decision making process in our research.

6.3 Managerial Implication

Prepurchase and Regulatory Focus

The findings from the current research have applications in everyday consumer settings. As highlighted by the current research, prevention-focus consumers differ greatly from promotion-focused consumers in preoutcome simulation. Service providers should understand consumers' regulatory focus so that they can employ effective and efficient marketing tactics to promotion service quality and purchase probability. For example, before making final purchase decision, prevention-focused consumers tend to be vigilant and simulate better alternatives although the existing alternative might already be attractive. Service providers can use guarantees (McConnell *et al.*, 2000) or exposure potential consumers to minimal claim advertising (Jain *et al.*, 2006) to enhance persuasion effect and reduce upward prefactual thinking generation. In contrast, progress presentation format (Wan *et al.*, 2009) and maximal claim advertising are adequate solutions to emphasize gains that facilitates promotion-focuses consumers to engage in more downward prefactual thinking as their nature.

Postpurchase and Regulatory Focus

It is a common belief that negative outcomes in service lead consumers to resent the buying and imply service providers might need to adopt some recover strategies.

However, how to acquire consumer perceptions of negative outcomes is a vital problem managers have to cope with first because the perceptions of severity of negative outcomes might differ from person to person. At the same time, because of budget and time constraints, managers are often compelled to find the most dissatisfied consumers out and recognize the order of priority of recovery so that stop these consumers from spreading negative word of mouth or switching. The current research suggest that practitioners can try to more concentrate their attention on prevention-focused consumers than on promotion-focused consumers due to more downward counterfactual thinking generation and better repair ability of promotion-focus consumers (Arnold and Reynolds, 2009).



6.4 Limitation and Future Research

Although this research reports several important findings, it is not without limitations. We discuss the limitation and possible points of view for future research as follow:

Sampling

Although students seem to be major real-life consumers of bicycles, the student sample somewhat limits the generalizability of the results. Therefore, future research should use other sample methodologies to dispel the doubts of the appropriateness of convenience samples which were widely discussed in marketing researchers and still have divergent positions until today (e.g., Ferber, 1977).

Other possible variables influencing simulation

This research proposes the influences of regulatory focus on simulations and evaluations. The findings provide an insight into the importance of simulation thinking while making purchase decisions and after experiencing negative outcomes in services, also identify the impact on regret and satisfaction. Future Research can investigate other possible variables which can also influence consumers' prefactual and counterfactual thinking. For example, whether information asymmetry or time pressure influences consumer simulation thinking both before and after buying?

Intertemporal choices

Previous Research suggested that regulatory focus might be derived temporarily. For example, people with a more accessible interdependent self-view are more likely to engage in prevention focus, while with a more accessible independent self-view are more likely to engage in promotion focus (Aaker and Lee, 2001). Therefore, future research can investigate whether consumers' regulatory foci shift over time in the decision making processes? By addressing this important question, marketers and practitioners can get a better understanding of consumer behavior.



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Website

Ministry of Transportation and Communications: www.motc.gov.tw/



Appendix A

您好：

0

這份問卷目的是為了了解自行車購買行為。您所填答的資料僅會作為學術分析之用，不會外流。非常感謝您的支持與協助。

國立交通大學交通運輸研究所 民國 99 年 3 月

請想像您是故事中的主角，並仔細閱讀以下情境描述。

根據交通部統計，截至去年，台灣地區自行車人口已經超過 1,000 萬人。自行車可以說是目前台灣最熱門的商品之一。在這股熱潮中，您也打算購買一台自行車。

瀏覽過網路跟雜誌後，您鎖定了一台您覺得不錯的自行車。這台自行車的外型、配備以及相關服務都符合您的需求，所以你打算購買這台自行車，這台自行車的訂價是 5,000 元。

現在，您到了怡然自行車行，看到這台自行車正在促銷，特價 4,300 元。同時，您知道附近還有一家自行車行，您得知那裡也有您打算購買的這台自行車，但您不確定那家自行車行販賣的價格。

在做一個決定前，人們通常會思考可能發生的狀況。對於您已經打算購買的這台自行車，您面臨價格上的考量。有些人擔心買貴，有些人覺得自己會買到便宜的。而您是怎麼想呢？

(請寫下您心中關於這台自行車在怡然自行車行跟另一家自行車行的任何想法)

Appendix B

您好： 1-1

這份問卷目的是為了了解自行車購買行為。您所填答的資料僅會作為學術分析之用，不會外流。非常感謝您的支持與協助。

國立交通大學交通運輸研究所 民國 99 年 4 月

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根據交通部統計，截至去年，台灣地區自行車人口已經超過 1,000 萬人。自行車可以說是目前台灣最熱門的商品之一。在這股熱潮中，您也打算購買一台自行車。

由於自行車的價格通常具有一些些彈性，所以您知道，您有可能用比較多的錢買到自行車。然而，您希望在購買自行車的時候不要多付額外的錢，以避免損失。有鑑於「天下沒有白吃的午餐」，若想避免損失，您勢必得付出一些努力，小心為上策，才能避免損失。

有時候我們追求我們想要的事物，然而有時候我們避免我們不想要的事物發生。您會如何描述上述的情境呢？

避免損失						得到利益
1	2	3	4	5	6	7
<hr/>						
防止						追求
1	2	3	4	5	6	7
<hr/>						
不多花額 外的錢						因折扣賺 到一些錢
1	2	3	4	5	6	7
<hr/>						
避免多付						希望少付
1	2	3	4	5	6	7
<hr/>						
付出努力						把握機會
1	2	3	4	5	6	7
<hr/>						
小心為上						當機立斷
1	2	3	4	5	6	7
<hr/>						

請想像您是故事中的主角，並仔細閱讀以下情境描述。

您打算購買自行車，瀏覽過網路跟雜誌後，您鎖定了一台您覺得不錯的自行車。這台自行車的外型、配備以及相關服務都符合您的需求，所以你打算購買這台自行車，這台自行車的訂價是 5,000 元。目前您面臨的考量是，自行車價格通常具有一些些彈性，您不希望自己多付，想避免多花額外的錢在買自行車上。

現在，您到了怡然自行車行，看到這台自行車正在促銷，特價 4,300 元。同時，您知道附近還有一家自行車行，您得知那裡也有您打算購買的這台自行車，但您不確定那家自行車行販賣的價格。

請問您傾向是否在怡然自行車行購買這台自行車？

傾向在怡然自行車行購買 傾向不在怡然自行車行購買

在作購買決策前，消費者通常會模擬可能的狀況。請問您決定要不要在怡然自行車行購買，是如何想像可能的狀況的，會買到便宜？還是會買貴？請根據您想像過的狀況，針對以下各項敘述的發生頻率進行評分。(非常不頻繁意指幾乎沒想過，非常頻繁意指總是想到)

	非常不頻繁	不頻繁	稍微不頻繁	普通	稍微頻繁	頻繁	非常頻繁
1. 當我想到其他自行車行的同台自行車可能比較便宜的時候，我會覺得糟糕。	1	2	3	4	5	6	7
2. 我會想到其他自行車行的同台自行車可能比較便宜。	1	2	3	4	5	6	7
3. 我無法停止去想我多麼想要心目中那台比較便宜的自行車。	1	2	3	4	5	6	7
4. 如果我現在沒有買下這台自行車，那麼結果會比較好。	1	2	3	4	5	6	7
5. 如果我聽朋友或家人的建議再買，那麼結果會比較好。	1	2	3	4	5	6	7
6. 我會想到，其他自行車行的同台自行車可能比較貴。	1	2	3	4	5	6	7
7. 當我想到其他自行車行的同台自行車可能比較貴的時候，我會覺得能夠放心購買。	1	2	3	4	5	6	7
8. 當我想到其他自行車行的同台自行車可能比較貴的時候，我會覺得自己很幸運。	1	2	3	4	5	6	7
9. 雖然這台自行車可能不是最便宜的，但是很明顯地，其他自行車行的同台自行車可能比較貴。	1	2	3	4	5	6	7
10. 如果我現在沒有在 <u>怡然自行車行</u> 買下這台自行車，那麼結果會比較糟。	1	2	3	4	5	6	7

【個人基本資料】

1. 您的性別： 男 女
2. 您的年齡為： 19 歲以下 20-29 歲 30-39 歲 40-49 歲
 50-59 歲 60 歲以上
3. 您的職業為： 學生 教師 軍警 上班族
 自己開業 家管 其他
4. 平均每月所得
(或零用錢)： 1 萬元(含)以下 1~3 萬 3~5 萬 5 萬(含)以上

問卷到此結束，煩請您再檢查一次有無遺漏的地方。

再次感謝您熱誠的協助與支持，謝謝。



您好：

1-2

這份問卷目的是為了了解自行車購買行為。您所填答的資料僅會作為學術分析之用，不會外流。非常感謝您的支持與協助。

國立交通大學交通運輸研究所 民國 99 年 4 月

請想像您是故事中的主角，並仔細閱讀以下情境描述。

根據交通部統計，截至去年，台灣地區自行車人口已經超過 1,000 萬人。自行車可以說是目前台灣最熱門的商品之一。在這股熱潮中，您也打算購買一台自行車。

由於自行車的價格通常具有一些些彈性，所以您知道，您有可能用比較少的錢買到自行車。因此，您希望您購買自行車的時候可以用折扣價買下，因此能獲得省下的這筆錢，以得到利益。有鑑於「機會稍縱即逝」，若想得到利益，您勢必得把握機會，當機立斷，才能得到利益。

有時候我們追求我們想要的事物，然而有時候我們避免我們不想要的事物發生。您會如何描述上述的情境呢？

避免損失						得到利益
1	2	3	4	5	6	7
防止						追求
1	2	3	4	5	6	7
不多花額 外的錢						因折扣賺 到一些錢
1	2	3	4	5	6	7
避免多付						希望少付
1	2	3	4	5	6	7
付出努力						把握機會
1	2	3	4	5	6	7
小心為上						當機立斷
1	2	3	4	5	6	7

請想像您是故事中的主角，並仔細閱讀以下情境描述。

您打算購買自行車，瀏覽過網路跟雜誌後，您鎖定了一台您覺得不錯的自行車。這台自行車的外型、配備以及相關服務都符合您的需求，所以你打算購買這台自行車，這台自行車的訂價是 5,000 元。目前您面臨的考量是，自行車價格通常具有一些些彈性，您希望能以比較便宜的價格買到自行車，想獲得折扣帶來的利益。

現在，您到了怡然自行車行，看到這台自行車正在促銷，特價 4,300 元。同時，您知道附近還有一家自行車行，您得知那裡也有您打算購買的這台自行車，但您不確定那家自行車行販賣的價格。

請問您傾向是否在怡然自行車行購買這台自行車？

傾向在怡然自行車行購買 傾向不在怡然自行車行購買

在作購買決策前，消費者通常會模擬可能的狀況。請問您決定要不要在怡然自行車行購買，是如何想像可能的狀況的，會買到便宜？還是會買貴？請根據您想像過的狀況，針對以下各項敘述的發生頻率進行評分。(非常不頻繁意指幾乎沒想過，非常頻繁意指總是想到)

		非常不頻繁	不頻繁	稍微不頻繁	普通	稍微頻繁	頻繁	非常頻繁
1.	當我想到其他自行車行的同台自行車可能比較便宜的時 候，我會覺得糟糕。	1	2	3	4	5	6	7
2.	我會想到其他自行車行的同台自行車可能比較便宜。	1	2	3	4	5	6	7
3.	我無法停止去想我多麼想要心目中那台比較便宜的自行 車。	1	2	3	4	5	6	7
4.	如果我現在沒有買下這台自行車，那麼結果會比較好。	1	2	3	4	5	6	7
5.	如果我聽朋友或家人的建議再買，那麼結果會比較好。	1	2	3	4	5	6	7
6.	我會想到，其他自行車行的同台自行車可能比較貴。	1	2	3	4	5	6	7
7.	當我想到其他自行車行的同台自行車可能比較貴的時 候，我會覺得能夠放心購買。	1	2	3	4	5	6	7
8.	當我想到其他自行車行的同台自行車可能比較貴的時 候，我會覺得自己很幸運。	1	2	3	4	5	6	7
9.	雖然這台自行車可能不是最便宜的，但是很明顯地，其他 自行車行的同台自行車可能比較貴。	1	2	3	4	5	6	7
10.	如果我現在沒有在 <u>怡然自行車行</u> 買下這台自行車，那麼結 果會比較糟。	1	2	3	4	5	6	7

【個人基本資料】

1. 您的性別： 男 女
2. 您的年齡為： 19 歲以下 20-29 歲 30-39 歲 40-49 歲
 50-59 歲 60 歲以上
3. 您的職業為： 學生 教師 軍警 上班族
 自己開業 家管 其他
4. 平均每月所得
(或零用錢)： 1 萬元(含)以下 1~3 萬 3~5 萬 5 萬(含)以上

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再次感謝您熱誠的協助與支持，謝謝。



Appendix C

您好：

2-1

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國立交通大學交通運輸研究所 民國 99 年 5 月

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自行車可以說是目前台灣最熱門的商品之一，您也打算購買一台自行車。而您希望在購買自行車的時候不要多付額外的錢，以避免損失。

上週，您在怡然自行車行以折扣價 4,300 元買下一台外型、配備以及相關服務都符合您需求的自行車，而不是以這台自行車的原價 5,000 元買下。因為您不想多付這 700 元，想要避免您的損失。

有時候我們追求我們想要的事物，然而有時候我們避免我們不想要的事物發生。您會如何描述上述的情境呢？

避免損失						得到利益
1	2	3	4	5	6	7
防止						追求
1	2	3	4	5	6	7
不多花額 外的錢						因折扣賺 到一些錢
1	2	3	4	5	6	7
避免多付						希望少付
1	2	3	4	5	6	7
在意虧損						在意利得
1	2	3	4	5	6	7

請想像您是故事中的主角，並仔細閱讀以下情境描述。

上週您在怡然自行車行以折扣價 4,300 元（原價 5,000 元）買下一台自行車，因為您想要避免這 700 元的損失。

然而，您現在卻發現，有一家自行車行是以 4,000 元來販賣同台自行車。

您在怡然自行車行買下這台自行車後，卻發現其他自行車行的價格更低，您會想到其實應該可以用更便宜的價格買到？還是其實已經有比較便宜了？請根據您想像過的狀況，針對以下各項敘述的發生頻率進行評分。（非常不頻繁意指幾乎沒想過，非常頻繁意指總是想到）

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在怡然自行車行買下這台自行車後，卻發現其他自行車行的價格更低，您有什麼感覺？(以下問項無所謂對錯，請依據您個人觀感作答即可)

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【個人基本資料】

1. 您的性別： 男 女
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再次感謝您熱誠的協助與支持，謝謝。

您好：

2-2

這份問卷目的是為了了解自行車購買行為。您所填答的資料僅會作為學術分析之用，不會外流。非常感謝您的支持與協助。

國立交通大學交通運輸研究所 民國 99 年 5 月

請想像您是故事中的主角，並仔細閱讀以下情境描述。

自行車可以說是目前台灣最熱門的商品之一，您也打算購買一台自行車。而您希望在購買自行車的時候可以用比較少的錢買到自行車，以得到利益。

上週，您在怡然自行車行以折扣價 4,300 元買下一台外型、配備以及相關服務都符合您需求的自行車，而不是以這台自行車的原價 5,000 元買下。因為您想要少付這 700 元，使您從中得到利益。

有時候我們追求我們想要的事物，然而有時候我們避免我們不想要的事物發生。您會如何描述上述的情境呢？

避免損失						得到利益
1	2	3	4	5	6	7
防止						追求
1	2	3	4	5	6	7
不多花額 外的錢						因折扣賺 到一些錢
1	2	3	4	5	6	7
避免多付						希望少付
1	2	3	4	5	6	7
在意虧損						在意利得
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簡 歷

VITA

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