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DECIPHER THE MENU: THE IMPACT OF LANGUAGE BARRIERS

ON DECISION-MAKING

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ABSTRACT

Previous studies on ethnic restaurants have identified several critical factors that influence customer selection, including food quality, service quality, atmospherics, and authenticity (Jang, Ha, & Park, 2012). However, prior research has failed to consider the potential negative effects of using an intimidating foreign language to describe the ethnic restaurant's menu items. In other words, language barriers, one of the fundamental issues in the context of ethnic dining, have been largely ignored.

The purpose of the current study is to understand the impact of language barriers in the context of ethnic restaurants. We propose that language barriers will negatively influence preference fluency; that is, the subjective feeling of ease or difficulty experienced while constructing menu choices. In addition, we identify and empirically test three moderators that could potentially influence the fluency effect, attribution, power, and choice.

One pilot study and three main experiments have been conducted. The results of Study 1 support the hypothesis that a high language barrier leads to a lower level of preference fluency, thus resulting in a higher level of choice deferral, less liking of the choice, and lower anticipated satisfaction of the dish. However, once the feeling that making a choice is difficult can be attributed to a language barrier, the effect of preference fluency disappears.

In Study 2 and 3, we test the moderating effects of power and choice, and the timing of when power and choice are induced. The results indicate that power and choice increase individuals' reliance on meta-cognitive cues such as preference fluency, which leads to negative consequences. However, such an effect was only significant when power and choice are induced *before* menu processing. Conversely, when power and choice are induced *after* menu processing; the negative effect of the language barrier is attenuated. Finally, theoretical and empirical contributions of the present study are discussed as well.

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Chapter 1

Introduction

Imagine that you decided to try the new Malaysian restaurant that just opened in town. Everything on the menu looks delicious, but the menu is confusing. Do you want to order *ayam percik* or *kuih talam*? Are you in the mood for *zasi goreng*, or are you leaning towards *serunding*? Foodie culture has sent America's culinary adventurers to ethnic neighborhoods in search of new delicacies. As illustrated by the Malaysian restaurant example, diners often find themselves confronted with unintelligible menu items, which are written in an intimidating foreign language. Research indicates that ethnic restaurants now account for more than 70 percent of the diners in the U.S. (Zhong & Ryu, 2010). The growth of exotic restaurants raises the following question: Are consumers able to easily understand the menu information in order to make an informed choice? If language barriers interfere with information processing, then how do consumers cope with such situations? What is the underlying psychological mechanism behind language barriers?

Furthermore, how do language barriers influence dining satisfaction and future behavioral intentions?

The research questions proposed in this study have not yet been addressed in the hospitality literature. To bridge that gap, the purpose of this project is to understand the impact of language barriers in the context of ethnic restaurants. We propose that language barriers will negatively influence preference fluency; that is, the subjective feeling of ease or difficulty experienced while constructing menu choices. Previous research in consumer behavior suggests, that the subjective experience of processing difficulty will induce an inference that the choice itself is difficult. Perceived difficulty, in turn, results in suboptimal choices characterized by less confidence and less liking (Novemsky, Dhar, Schwarz, & Simonson, 2007). In other words, language barriers make consumers feel uncomfortable, less satisfied with the restaurant, and less likely to revisit the restaurant.

However, the effect of language barriers on preference fluency might be moderated by power, which is often defined as the ability of a person to influence others (De Dreu & Van Kleef, 2004; French & Raven, 1959; Vescio, Snyder, & Butz, 2003) or control outcomes (Galinsky, Gruenfeld, & Magee, 2003; Keltner, Gruenfeld, & Anderson, 2003; Thibaut & Kelley, 1959; Weber, 1947) by providing or withholding resources valuable to others. Recent research suggests that power affects reliance on experiential information (Guinote, 2007d; Weick & Guinote, 2008), such that powerful individuals are more likely to rely on experiential information compared to their powerless counterparts. Moreover, researchers suggest that the specific effects of power depend upon when power is induced. Briñol et al. (2007) found that making people feel powerful prior to a message validates their existing views. In contrast, if power is induced after information processing, feeling powerful tends to increase reliance on one's newly generated thoughts, compared with low power.

Additionally, prior research has connected two streams of literature together - power and choice (Inesi, Botti, Dubois, Rucker, & Galinsky, 2011). Inesi et al. (2011) proposed two hypotheses about the relationship between power and choice: the substitutability hypothesis and the threshold hypothesis. The authors tested the hypotheses empirically and the results suggested that power and choice are substitutable. The absence of one would increase the desire for the other. Moreover, choice and power exhibit a threshold effect, such that the addition of power (or choice) would yield diminishing returns once choice (or power) is provided. The underlying psychological mechanism is that both power and choice satisfy the same human need - personal control.

On the basis of these findings, we expect that if power/choice is induced *before* an individual's exposure to an exotic menu, individuals in the high power condition (or choice condition) should rely on experiential information, as opposed to the ones in the low power condition (or no-choice condition). As such, those individuals (in the low power or no-choice condition) will have less confidence and less liking of their choices, because of a lower level of preference fluency. On the other hand, if power/choice is induced *after* the consumer's exposure to the menu, individuals in the high power condition (or choice condition) will feel more confident (Briñol et al., 2007), have more positive emotions (Anderson & Berdhal, 2002), and be more optimistic (Anderson & Galinsky, 2006) about the decision-making process. As a result, they are less likely to be influenced by the difficulty of processing menu information compared to their counterparts in the low power condition (or no-choice condition).

In the next section, we review literature tangent to the role of language barriers, power and choice in influencing consumer decision-making in the context of ethnic restaurants.

Chapter 2

Literature Review

Ethnic Dining

Demand for ethnic restaurants and cuisine is driven by patrons who are eager for new experiences. Previous studies on ethnic restaurants identified several critical factors that influence customer selection of ethnic restaurants, including food quality, service quality, atmospherics, and authenticity (Jang et al., 2012). In general, authenticity is one of the most important aspects of ethnic dining experiences. Authenticity has been typically used to describe something considered to be genuine, real, or true (Bendix, 1992; Berger, 1973; Taylor, 1991; Trilling, 1972). The search for authenticity is manifest everywhere in Western society (Berger, 1973; MacCannell, 1973). The search for authenticity has become an important concern in the mass production that is evident in contemporary society (Leigh et al., 2006; Rose & Wood, 2005). Several studies demonstrate that perceived authenticity is a significant driver for customer satisfaction and behavioral intentions (Ha & Jang, 2010; Lego et al., 2002; Liu & Jang, 2009a,b; Tsai & Lu, 2012). Customers often expect to learn about a different culture through dining at ethnic restaurants, and they value the authentic cuisine that differs from what they eat at home (Ebster & Guist, 2004; Roseman, 2006; Sukalakamala & Boyce, 2007).

Beyond food authenticity, diners expect to experience cultural aspects of the ethnic dining experience via physical surroundings (Jang et al., 2012). Prior research shows that authentic atmospherics, such as interior design, decorations, or music, create meaningful dining and entertainment experiences (Beardsworth & Bryman, 1999; Ebster & Guist, 2004). Therefore, all components of the dining environment such as signage, menu design, employee uniforms, and employee scripts should be carefully orchestrated to communicate a desired cultural image

(Magnini et al., 2011). Although the authenticity of menu items has been established, prior research has failed to consider the potential negative effects of using an intimidating foreign language to describe the ethnic restaurant's menu items. In other words, language barriers, one of the fundamental issues in the context of ethnic dining, have been largely ignored.

Language Barriers

A simplistic definition of a language barrier is that it is a problem of “miscommunication” (Harzing & Feely, 2008). It is one of the factors that prevents or disturbs the flow of information between two parties (Johanson & Vahlne, 1977). In the study's context, a language barrier is defined, as a factor that prevents consumers from learning about and understanding the menu information in ethnic restaurants. Language barriers, of ethnic restaurant patrons, partially resemble those of functionally illiterate consumers and arise out of a specific context. Functional literacy, as indicated by Viswanathan et al. (2010), relates to the ability to function adequately, as adults in the day-to-day world (Kirsch & Guthrie, 1997). It includes literacy – the ability to handle reading tasks (Bormuth, 1975), and numeracy – the ability to handle quantitative tasks (Gal, 2002). Consumers with low functional literacy may experience negative decision-related affects in a wide range of choice contexts (Garbarino & Edell, 1997). In addition, the greater difficulties experienced by those with low literacy may produce a greater sense of risk and therefore more anxiety in making decisions (Wallendorf, 2001).

The functional literacy demands in most modern economies are substantial, and the absence of such skills in certain situations (e.g., ethnic dining) has significant implications for consumers and marketers. How do low literate consumers make decisions when they do not understand the focal information on the menus and what are the corresponding coping strategies? In fact, Viswanathan et al. (2005) discuss the cognitive predilections, decision-making, and

coping strategies of low-literate consumers. The results showed that low-literate consumers tend to use concrete thinking and pictographic thinking. Moreover, Adkins and Ozanne (2005) report similar findings, including pictorial dependence, and choices based on familiarity. In terms of coping strategies, avoidance, self-esteem maintenance, and dependence on others were identified. Likewise, we predict that, in the context of ethnic restaurants, consumers may display similar characters and employ similar coping strategies. To illustrate, an authentic menu written in a foreign language might interfere with consumers' preference fluency. Consequently, they will defer a choice of an entrée to servers or dining companions; or they will compromise and make a decision based on other heuristics such as price. Even worse, for the restaurant, if consumers feel that the intimidating foreign language made them uncomfortable, they may refrain from repatronizing the ethnic restaurant.

Processing Fluency

The concept of preference fluency is based on the notion of processing fluency. As one of the metacognitive cues, processing fluency indicates the subjective experience of ease with which people process information. It plays an important role in human judgment and decision-making (Alter & Oppenheimer, 2009). In a classic article, Schwarz et al. (1991) showed that fluency influences people's judgments independently of the retrieved content. Indeed, any variable that influences processing fluency has similar effects on judgments (Schwarz, 2004). Fluency takes on different forms (Alter & Oppenheimer, 2009; Kelley & Rhodes, 2002; Petty, Briñol, Tormala, & Wegener, 2007; Schwarz, 1998, 2004; Skurnik, Schwarz, & Winkielman, 2000; Winkielman, Schwarz, Fazendeiro, & Reber, 2003), including but not limited to perceptual fluency, memory-based fluency, embodied cognitive fluency, linguistic fluency, and higher order cognitive fluency.

Perceptual fluency

Prior research has mainly focused on two types of perceptual fluency: physical and temporal perceptual fluency. Physical perceptual fluency is a very basic fluency effect, and many researchers have manipulated fluency by varying the ease with which participants are able to perceive the target stimuli (Alter & Oppenheimer, 2009). One of the most common techniques is the font manipulation (e.g., Alter & Oppenheimer, 2008b; Alter et al., 2007; Novemsky, Dhar, Schwarz, & Simonson, 2007; Reber & Zupaneck, 2002; Simmons & Nelson, 2006a, 2006b). In these studies, stimuli are printed in either a clear font or an unclear font (e.g., a small, gray, italicized font: *sample*). Other researchers have manipulated physical perceptual fluency by varying the contrast between the statements and the white background (Hansen, Dechene, & Wanke, 2008; Reber & Schwarz, 1999; Reber, Winkielman, & Schwarz, 1998). On the other hand, temporal perceptual fluency is based on the premise that stimuli are easier to perceive when they are visible for longer periods of time or when matching visual primes precedes them. For example, Winkielman and Cacioppo (2001) conducted a series of studies and showed that longer exposure enhanced processing fluency.

The fundamental premise of the perceptual fluency effect is that repeated exposures to a stimulus will result in a representation of the stimulus in memory. Later on, when the stimulus is encountered, the memory representation will facilitate the encoding and processing of the stimulus and make processing more fluent (Jacoby, Kelley, & Dywan, 1989; Janiszewski & Meyvis, 2001). Individuals tend to attribute fluency to increased liking of the stimulus rather than previous exposures. And such an attribution process is automatic, effortless, and does not require conscious or strategic processing of the stimuli (Bornstein & D'Agostino, 1992; Bornstein, Lenoë, & Galley, 1987; Jacoby et al., 1989; Seamon, Marsh, & Brody, 1984).

To date, research investigating perceptual fluency effects has mainly focused on the effect of repeated exposures to an identical stimulus (Janiszewski & Meyvis, 2001; Shapiro & Nielsen, 2013). Shapiro and Nielsen (2013) bring a dynamic perspective to this research area by examining the impact of making subtle contextual changes to an advertisement from different exposures. Specifically, the location of an ad element (product package or brand logo) was changed across repeated presentations of an advertisement. The results indicate that brand logos and product depictions capture greater fluency when they change location from one exposure to the next. The viewers spontaneously detect a change and devote additional processing resources to the changed information (Brockmole & Henderson, 2005), which creates a stronger memory trace, more fluency, and increased preference for the brand.

Memory-based fluency

Memory-based fluency includes both retrieval fluency and encoding fluency. Retrieval fluency is the subjective ease or difficulty with which people bring to mind exemplars that conform to a particular rule. For example, people retrieved words beginning with the letter K more easily than they could recall words with K as their third letter (Tversky & Kahneman, 1973). Although fluency is more commonly associated with retrieval ease, encoding fluency is also an important meta-cognitive cue when people assess how well they have learned new information (Hertzog, Dunlosky, Robinson, & Kidder, 2003; see also Begg, Duft, Lalonde, Melnick, & Sanvito, 1989; Castel, McCabe, & Roediger, 2007). Studies have shown that participants experienced greater fluency when they were given more time to encode new information.

Embodied cognitive fluency

The notion of *embodied cognitive* refers to subjective proprioceptive experiences that form a distinct and important source of cognitive. That is, people appear to use proprioceptive feedback cues, like the configuration of facial features and body posture, to assess the fluency of a task (Alter & Oppenheimer, 2009). For example, people tend to associate different facial expressions with cognitive ease and difficulty (Stepper & Strack, 1993; Tourangeau & Ellsworth, 1979). Easy tasks tend to relax the corrugator and activate the zygomaticus major (smiling muscle), whereas difficult tasks that require concentration tend to induce brow furrowing (activation of the muscle). Winkielman and Cacioppo (2001) assessed participants' affective responses to fluent stimuli with facial electromyography (EMG). The results suggested that high fluency was associated with stronger activity over the zygomaticus region, but was not associated with the activity of the corrugator region. Additionally, researchers also found that participants who furrowed their brows experienced greater disfluency than did participants who puffed their cheeks (Alter et al., 2007; Tamir et al., 2004). For body feedback, researchers found that certain motor tasks, such as copying a statement using the non-dominant hand (Petrova, 2006), requires more mental effort than others. Therefore, participants experienced less fluency during the tasks.

Linguistic fluency

Linguistic fluency includes the following dimensions: phonological fluency, lexical fluency, syntactic fluency, and orthographic fluency. Specifically, phonological fluency refers to the fact that certain letter strings are easier to process than others. For example, English speakers struggle to pronounce some obscure English words more so than others (euneirophrenia vs. beestings), The difficulty that participants have pronouncing these words engenders the

experience of disfluency (Alter & Oppenheimer, 2008a, 2008b). Lexical fluency is manipulated by replacing simple words with complex alternatives (Oppenheimer, 2006). The results suggest that texts that contain words that were more obscure and less familiar were harder to process. Syntactic fluency is related to how easily readers can parse different grammatical constructions. Easier parse leads to high syntactic fluency. Last, orthographic fluency is the subjective experience of ease with which people are able to translate written information into comprehensible language. Greater cognitive effort is required to translate the orthographically disfluent written information into a simpler or more familiar form (Steffel, 2009).

Higher order cognitive fluency

Higher order cognitive tasks are similar to language processing, which also falls along a continuum from fluent to disfluent. So far, five distinct instantiations of fluency have been identified to have influence on higher order cognition: conceptual fluency, diagnostic fluency, spatial reasoning fluency, ease of image formation, and ease of decision-making (Alter & Oppenheimer, 2009). Conceptual fluency occurs when exposure to a stimulus creates a meaning-based representation of a stimulus that facilitates encoding and processing of the stimulus when viewed at a later time (Shapiro, 1999; Shapiro, MacInnis, & Heckler, 1997; Whittlesea, 1993). Researchers have facilitated processing by priming participants with semantically related concepts. For example, doctor primes nurse strongly, but distinct from other professions. Also, conceptual priming has the potential to facilitate perceptual processing. For example, Labroo, Dhar and Schwarz (2008) primed people with the concept of a frog, which led them to process a wine bottle with a frog on its label more readily than the ones without a frog on its label. Although there have been no studies investigating how conceptual fluency changes with each additional exposure, Janiszewski and Meyvis (2001) suggest that conceptual fluency exhibits

more variability across different levels of exposure than perceptual fluency. Conceptual fluency has the potential to increase over time, because meaningful stimuli show stronger exposure-affect response curves than meaningless stimuli (Bornstein, 1989). As for decision fluency, it focuses on how the difficulty of making a decision influences people's decision-making patterns (Alter & Oppenheimer, 2009). Researchers have manipulated decision fluency by varying the size of the choice set (Iyengar & Lepper, 2000) and how easily the options can be differentiated from one another (Steffel & Shafir, 2009).

Consequences of processing fluency

Previous research has examined processing fluency by employing various manipulations, such as semantic priming (Begg, Anas, & Farinacci, 1992), visual clarity (Reber & Schwarz, 1999), and phonological priming (McGlone & Tofiqbakhsh, 2000). Interestingly, all types of fluency experiences exert consistent effects; people tend to associate fluency with truth, increased liking, and greater confidence (Alter & Oppenheimer, 2009). Next, we will discuss the impact of fluency on judgment in detail.

First, researchers found that people tend to associate fluency with truth and disfluency with untruth (Schwarz, 2004), in large part because fluency implies frequency, which in turn implies social consensus (Schwarz, Sanna, Skurnik, & Yoon, 2007; see also Begg et al., 1992; Kelley & Lindsay, 1993; McGlone & Tofiqbakhsh, 2000; Reber & Schwarz, 1999). The results of prior studies suggest that when a stimulus is easy to perceive visually (Reber & Schwarz, 1999), easy to process linguistically (McGlone & Tofiqbakhsh, 2000), easy to retrieve from memory (Begg et al., 1992), or semantically activated (Kelley & Lindsay, 1993), people believe that it is more true than its less fluently processed counterparts.

Second, various instantiations of fluency also appear to have a uniform influence on judgments of liking. For example, Zajonc (1968) showed that people prefer familiar stimuli to similar but novel alternatives, which is called the mere exposure effect. Bornstein and D'Agostino (1992, 1994) later formalized the link between the mere exposure effect, and fluency by demonstrating that people can more easily retrieve stimuli from memory after repeated exposures, which is based on their processing fluency/attribution model. In consumer choice literature, Tamir et al. (2004) found that participants relied on their facial expressions as a cue when deciding whether they liked graphic posters. In addition, Iyengar and Lepper, (2000) found that difficult choices induce less liking for the ultimate choice that was made. In a similar vein, Petrova and Cialdini (2005) found that people prefer travel destinations that are easily imagined.

Lastly, for confidence judgments, it appears that people generally feel greater confidence in their performance when a task is fluent, than when it is disfluent (Kelley & Lindsay, 1993; Koriat, 1993). In general, people experience greater confidence when the target attributes are primed (Reder, 1987), easier to see (Simmons & Nelson, 2006a), orthographically fluent (Alter et al., 2007), easy to encode in memory (Castel et al., 2007), easier to retrieve from memory (Kelley & Lindsay, 1993), and associated with relaxed facial expressions (Stepper & Strack, 1993).

The influence of processing fluency is not limited to explicit judgments, but can also relate to other consequences such as aesthetic pleasure and perceived value. Several studies indicate, that an aesthetic experience is a function of processing fluency: any variable that increases the fluency with which an object can be processed, also increases the perceiver's aesthetic pleasure (Cho & Schwarz, 2010; Reber et al., 2004; Schwarz, 2004). For example, Cho and Schwarz (2010) asked participants to evaluate the aesthetic appeal of eyeglasses and earrings. The results suggest that participants found a given product more aesthetically appealing when it is shown on a familiar person's regular image rather than a mirror image because a regular image has a fluency advantage. However, image format does not affect judgments when the other person

in the photo is unfamiliar, which is disfluent in either presentation format. In addition, Alter and Oppenheimer (2008a) examined human valuation estimations and found that participants believed that familiar forms of currency (e.g., a familiar \$1 bill) had greater purchasing power than their unfamiliar counterparts (e.g., a rare and unfamiliar coin).

Based upon these findings, disfluency should not be pursued, at least not voluntarily. Because it may increase the chance that a task appears to be difficult and effortful, which further leads to reduced liking for a product (Schwarz, 2004) and greater risk perceptions (Song & Schwarz, 2009).

Preference fluency

Novemsky et al. (2007) extend processing fluency to the consumer behavior literature, by proposing a concept called preference fluency. They define preference fluency as the subjective feeling of ease experienced while *constructing a preference*. Research on preference construction, has implicated choice difficulty as a source of the failure of preferences to be invariant across tasks and contexts (Dhar & Simonson, 2003; Payne, Bettman, & Johnson, 1992). In general, the manipulations of decision difficulty, such as by changing the choice options, the content that is the focus of attention, and the reference points used in choice (e.g., Luce, Bettman, & Payne, 1999), are associated with changes in the content of decision makers' thoughts. Novemsky et al. (2007) argued that the impact of thought content, could be qualified by a person's metacognitive experiences during the processing of information (Schwarz, 2004).

According to prior judgment research (Bettman et al., 1998; Shafir, Simonson, & Tversky, 1993; Simonson, 1989; Simonson & Nowlis, 2000), when individuals presume experiences to occur while thinking about the judgments that were related to the judgment, they incorporated those experiences into their ratings. Accordingly, research in preference construction

shows that when the subjective experience of difficulty accompanies the decision making process, this experience will induce an inference that the choice itself is difficult (Novemsky et al., 2007). Such an experience is quite similar to the effects of difficulty in research that manipulates the content of the choice. As a consequence, low preference fluency leads to choice deferral and rejection, because individuals attribute an uncomfortable feeling about preference formation to the decision task (Novemsky et al., 2007). Some options are selected not because they are more preferred, but as a way to resolve a difficult decision (Dhar & Simonson, 2003).

Sources of fluency

Novemsky and colleagues (2007) manipulated the fluency of preference formation by presenting descriptions in an easy or difficult-to-read font or by asking participants to think of few or many reasons for their choice. Researchers also identified some additional sources of preference fluency. For example, Hong and Sternthal (2010) showed that when a person processes message information in a manner that corresponds with the processing proclivities associated with his or her prior knowledge, a positive subjective experience of processing fluency results, which in turn, enhances the person's judgments. Furthermore, Thompson et al. (2009) contrasted the effect of process versus outcome-oriented thinking on consumers' subjective experiences during the decision-making process. The results of their study indicate that process-oriented thinking increases decision difficulty, because it leads to a dual focus on both means and end benefits. Such an experienced difficulty results in negative consequences, including greater willingness to postpone choice, lower commitment to the chosen option, and degraded task performance. In the current research, we propose that, in the context of ethnic restaurants, consumers might feel uncomfortable with menu items described in an intimidating foreign

language, such as Korean. Such language barriers become the source of low preference fluency and hence result in suboptimal choices.

Moderators

Researchers have shown that fluency can be discounted as an informative cue (Alter & Oppenheimer, 2009). Reber et al. (2004) suggested two moderating variables: expectations and attributions. Expectations have a dual influence on processing fluency and judgment (Schwarz, 2004). On one hand, unexpected fluency is more likely to capture attention. According to the discrepancy-attribution hypothesis (Whittlesea & Williams, 1998, 2000), salient causes of fluency (e.g., an obvious repetition scheme, predictive context) allow participants to formulate accurate expectations regarding the processing fluency of the stimuli, and thus reduce the effect of fluency (Whittlesea & Williams, 2000). On the other hand, many fluent stimuli may continue to elicit a pleasant experience even when fluency of processing is expected. For example, people continue to enjoy prototypical faces after they formed accurate processing expectations for these stimuli (Reber et al., 2004).

The other moderator is attribution. Once an affective experience is elicited by a fluent stimulus, its impact on preference judgments is moderated by attributional processes (e.g., Bornstein & D' Agostino, 1994; Van den Bergh & Vrana, 1998). People prefer to attribute an event to one, rather than multiple plausible causes (Einhorn & Hogarth, 1986; Kelley, 1973). Thus, when people attribute fluency to an irrelevant source, or the correct source to the judgment at hand, the experience of fluency will not influence individuals' judgments. For example, Schwarz et al., (1991) (also see Simmons & Nelson, 2006a, 2006b) found that people used retrieval fluency to guide their self-assertiveness judgments. However, once the experimenter drew their attention to distracting background music, participants then attributed the disfluency of

retrieving many examples of assertiveness to the music, rather than to a lack of assertiveness. As such, their judgments were no longer influenced by retrieval fluency. Novemsky et al. (2007) found evidence for discounting using yet another manipulation of fluency. They found that participants who were told the correct source of feeling difficulty (e.g., “This information may be difficult to read because of the font”) made identical decisions to participants who made the decision with ease. Specifically, they were less likely to defer a choice, or to choose a compromise option than participants who were led to attribute the experience of disfluency to an incorrect source. Similarly, in the current research, we propose that the informative value of preference fluency as a general metacognitive cue will be discounted once individuals correctly attribute the feelings of difficulty to language barriers while processing menu information.

H1. The negative effect of a language barrier on choices, including (a) choice deferral, (b) less liking of the menu, and (c) lower level of anticipated satisfaction of the dish, will be minimized if individuals attribute the low preference fluency to the difficulty of reading the menu rather than the difficulty of the decision.

Fluency and negative judgments

A recent stream of research challenges the basic notion that high fluency is always associated with positive judgments, whereas low fluency is necessarily associated with negative judgments. For example, Winkielman and Schwarz (2001) asked participants to recall either 4 childhood events (an easy task) or 12 childhood events (a difficult task). The results showed that participants who had to perform the difficult task inferred that their childhood was happier when they were led to believe that pleasant periods of one's life are difficult to recall, as compared to when they were led to believe that unpleasant periods are difficult to recall. Additionally, Nielsen and Escalas (2010) identified a boundary condition for the preference fluency effect. Specifically, they found that under conditions of narrative processing, difficulty in processing could actually

improve preferences, because more effort leads to more transportation, or immersion, into the story, thus enhancing brand evaluations. Also, Tsai and McGill (2011) suggest that choice confidence is affected by fluency and is moderated by construal levels that evoke different theories to interpret the feelings of fluency. At lower construal levels, fluency informs the feasibility of completing the concrete steps of the decision process to choose well, but at a higher construal level, fluency informs (insufficient) effort invested for the desirability of the outcome. Therefore, fluency increased confidence for people processing at a lower construal level, but it decreased confidence for those processing at a higher construal level.

Moreover, Pocheptsova et al. (2010) found that preference fluency leads to higher evaluations, but only in the domain of everyday consumption. However, in the domain of special-occasion products, the relationship reverses. That is, in the context of special occasion or high-end products, higher fluency serves as a negative cue that indicates abundance and familiarity of products, which translates into lower value perceptions. Contrarily, difficulty (and not ease) processing of such products will make them feel more special, leading consumers to prefer such products more when processing fluency is low. Last, Labroo and Kim (2009) demonstrate an “instrumentality” heuristic by showing that the preference fluency effect may reverse when an attitude object is a means to obtaining a goal. The feeling of effort or difficulty led participants to view these objects as more instrumental for obtaining the goal.

In summary, difficulty sometimes can be associated with favorable judgments, while ease sometimes can be associated with unfavorable judgments (Briñol, Petty, & Tormala, 2006). In fact, researchers (Briñol, Rucker, Tormala, & Petty, 2004) have argued that it is important to distinguish between two qualitatively different aspects of meta-cognition. The first aspect is the content of meta-cognition. For example, people can think their thoughts are easy or difficult to generate, are familiar or unfamiliar, and so forth (Briñol et al., 2006). A second aspect of meta-cognition is a value judgment. That is, does ease imply something good or bad? Skurnik,

Schwarz, and Winkielman (2000) demonstrate that the effect of fluency/familiarity depends on the extent to which people develop a second-order belief that familiarity is diagnostic of truth. If people believe that familiarity is associated with falseness, then the effect of fluency/familiarity is reversed. Briñol et al. (2006) investigated the malleable meaning of subjective ease as well, and found that the traditional ease-of-retrieval effect can be reversed when ease was described as negative.

Fluency and power

Thompson and Ince (2013) examined the effect of processing fluency on judgments of agent competence. The results of their study indicate that factors, such as power, which influences consumers' reliance on their subjective experiences, mitigate the link between fluency and agent competence. Individuals' psychological state of power influences their information processing as well as decision-making. For example, a recent stream of research suggests that metacognitive experiences (e.g., processing fluency) become a more central and primary input to decision making under psychological states of high power (vs. low) (Guinote, 2007; Weick & Guinote, 2008). As such, in the current study, we propose power as a moderator that could influence the impact of preference fluency on judgment.

Power

Social power has been studied extensively in the domain of social psychology. It is often defined as the ability of a person to influence others (De Dreu & Van Kleef, 2004; French & Raven, 1959; Vescio, Snyder, & Butz, 2003) or control outcomes (Galinsky, Gruenfeld, & Magee, 2003; Keltner, Gruenfeld, & Anderson, 2003; Thibaut & Kelley, 1959; Weber, 1947) by

providing or withholding resources valuable to others. French and Raven (1959) identify five major bases of power: (1) reward power, based on individuals' perception that the other person has the ability to mediate rewards for him or her; (2) coercive power, based on individuals' perception that the other person has the ability to mediate punishments for him or her; (3) legitimate power, based on the perception that the other person has a legitimate right to prescribe behavior for him or her; (4) referent power, based on individuals' identification with the other person; and (5) expert power, based on the perception that the other person has some special knowledge or expertise. In recent years, research on how power affects cognition and behavior has been based on two extremely influential bodies of work (Smith & Trope, 2006): the link between power and stereotyping (Fiske, 1993) and the link between power and the behavioral approach and inhibition systems (Keltner et al., 2003).

Power and stereotyping

Fiske's (1993) Power As Control (PAC) model presents a theory of the mutually reinforcing interaction between power and stereotyping, mediated by attention. The powerless attend to the powerful who control their outcomes, thereby not forming stereotypic impressions. On the other hand, the PAC model suggests that powerful people are more vulnerable to stereotyping, in part because they do not need to pay attention, and they may not be personally motivated to pay attention.

Guinote (2007) extends this line of research by examining the effects of power on basic cognition. The results of the three experiments shows that powerful individuals, relative to powerless individuals, displayed a greater ability to inhibit peripheral information, and a greater ability to focus attention in line with the demands of the task. It was also found recently that power also affects reliance on experiential information (Guinote, 2007d; Weick & Guinote, 2008;

Guinote, 2010). For example, Guinote (2010) demonstrates that powerful participants eat depending on their bodily feelings. Hunger predicts the amount of food eaten by powerful, but not by powerless participants. In addition, research has shown that power has a strong influence on other aspects of human information processing, such as confirmatory information processing (Fischer, Fischer, Englich, Aydin, & Frey, 2011) and moral thinking (Lammers & Stapel, 2009).

The Approach/inhibition theory of power

A decade after Fiske's model was presented, Keltner et al. (2003) proposed the approach/inhibition theory of power. Since 1) power is correlated with increased resources, and 2) the experience of power involves the awareness that one can act at will (Weber, 1947). Keltner et al. (2003) proposed that elevated power is associated with increased rewards and freedom, and thereby activates approach-related tendencies. Reduced power is associated with increased threat, punishment, and social constraint, which activate inhibition behaviors. According to Keltner et al. (2003), the experience of power is governed by the relative activation of two neurobiological systems, the BAS and BIS. Reduced power activates the BIS and elevated power activates the BAS. The BIS is responsible for identifying novel stimuli (including threats), recognizing goal conflict, and interrupting ongoing behavior. On the other hand, the BAS leads individuals to attend to potential rewards, and to initiate and maintain behavior that brings them to the goals (Fowles, 1980, 1988; Gray, 1975, 1982; Gray & McNaughton, 2000; Magee & Smith, 2013). To test this theory, Anderson and Berdahl (2002) conducted two studies and provided preliminary support for the approach/inhibition theory of power. Participants who were either higher in personality dominance or assigned control over resources, were compared to their lower power counterparts. The higher power participants, expressed their true attitudes and opinions, felt more

positive emotions, and were more likely to perceive social rewards, than their less powerful counterparts.

Building upon Keltner et al.'s (2003) theory, Galinsky et al. (2003) proposes a positive relationship between power and action. Results of three experiments indicate that individuals with power exhibit a greater action orientation than those without power, regardless of the social consequences of their acts. Consistently, Magee, Galinsky, and Gruenfeld (2007) find that high-power individuals display a greater propensity to initiate a negotiation and to make the first move in competitive scenarios. Power also increases optimism (Anderson & Galinsky, 2006), confidence (Briñol et al., 2007), and illusory control (Fast, Gruenfeld, Sivanathan, & Galinsky, 2009). As a result, power sometimes leads to more risky behaviors (Anderson & Galinsky, 2006; Kim & McGill, 2011). For example, Kim and McGill (2011) extend this stream of research by considering the influence of power on anthropomorphized risk-bearing entities. The results of their study indicate that high social power makes people think they can control outcomes from anthropomorphized, risk-bearing entities, which in turn decreases risk perception. However, lack of social power increases risk perception because people think they will not be able to control the entity.

The social distance theory of power

Smith and Trope (2006) advance the literature in power by arguing that power creates asymmetric social distance. Specifically, they suggest that people in a high-power condition experience more social distance as compared to the ones in a low-power condition. In agreement with the proposed role of social distance in construal (Trope & Liberman, 2010), people who are primed with the feeling of being powerful tend to engage in more abstract information processing (vs. concrete information processing) (Huang, Galinsky, Gruenfeld, & Guillory, 2011; Magee,

Milliken & Lurie, 2010; Smith and Trope, 2006; Stel, van Dijk, Smith, van Dijk, & Djalal, 2012). Magee and Smith (2013) name this *the social distance theory of power* and argue that the association between power and construal levels cannot be accounted for by the approach/inhibition theory (Keltner et al., 2003). For two phenomena - desirability/feasibility and self-control - the approach/inhibition theory and the social distance theory generate different predictions. Using desirability/feasibility as an example, desirability and feasibility are domains that represent qualitatively different kinds of information in decision-making; one domain is not more positive than the other (Magee & Smith, 2013). The social distance theory predicts that high-power (vs. low-power) individuals will be more likely to be influenced by desirability, relative to feasibility. On the contrary, the approach/inhibition theory generates a valence-based prediction. High-power individuals would be more selectively attentive to positive (vs. negative) information in both the desirability and feasibility domains.

The perspective of agentive versus communal

Recently, Rucker et al. (2012) reviewed the concept of power and offered a new framework for understanding how power guides and shapes human behavior, in general, and in consumer behavior in particular. They propose that having and lacking power respectively fosters agentive and communal orientations, which have a transformative impact on perception, cognition, and behavior. Agency refers to the existence of the individual as an agent, and manifests itself in “self-protection, self-assertion and self-expansion” (p. 14-15). In contrast, communion refers to the sensitivity and participation of an individual in some larger social group (e.g., family, firm, society) and manifests itself, in the tendency to consider others in thinking and decision-making, which results in greater attention paid to others, and a reluctance to act without consideration of

others. Agentic orientation and communion orientation can be thought of as general approaches to thinking about, and interacting with one's environment.

Manipulation techniques

As for the manipulations of power, Rucker et al. (2012) suggests that power differences can arise from a number of structural, cognitive, and physical factors. First of all, the notion that differences in power can arise from structural factors in one's social environment is inherent in early conceptualizations of the power construct (e.g., French & Raven, 1959). Society is full of hierarchies that create structural differences in power. For example, those low in socioeconomic status often have less control over resources than those high in socioeconomic status (Bruner & Goodman, 1947). However, the existence of hierarchical roles does not mean that power is permanently fixed within an individual. In fact, a state of low or high power can be quickly and simply elicited by assigning individuals to an actual hierarchical role of a boss/employee for a single task (Briñol et al., 2007; Galinsky, Gruenfeld, & Magee, 2003). Similarly, people given differential control over valuable resources during a group task can create different levels of power (e.g., Anderson & Berdahl, 2002). Secondly, researchers have argued that the concept of power is embedded within individuals (Bargh, Raymond, Pryor, & Strack, 1995; Chen, Lee-Chai, & Bargh, 2001; Galinsky et al., 2003) and can be cognitively activated. For example, Galinsky et al. (2003) found that an episodic recall task (e.g., merely asking participants to write about a time they had or lacked power) influenced participants' experienced power. Additional support for this idea comes from semantic priming. For instance, Smith and Trope (2006) used unscrambling sentences that contain words related to having (e.g., authority, control, dominates) or lacking power (e.g., complied, obey, submits) to prime social power. Thirdly, research has suggested that physical factors, like the physical position of one's body can also influence individuals' feelings

of being powerful or powerless at a given moment. For example, Carney, Cuddy, and Yap (2010) primed power by having participants pose in positions that are associated with having power (i.e., expansive positions with open limbs such as kicking one's feet up on a table) as opposed to lacking power (i.e., contractive positions with closed limbs such as sitting in a chair with one's hands in between one's knees).

The timing of power induction

While the effect of power has been widely studied, researchers have largely ignored the timing of when power is induced (Briñol et al., 2007). As suggested by Briñol et al. (2007) the effect of power will vary depending upon when power is induced – before or after the receipt of a message. They tested this argument in the context of persuasion, and the results suggested that making people feel powerful prior to a message would validate their existing views and thus reduce the persuasiveness of any subsequent information. However, inducing power after a message that has just been processed would validate one's recently generated thoughts, and thus show a larger differentiation between weak and strong arguments. One explanation for such an effect is that enhanced power leads to more confidence, in whatever actions one is considering (Briñol et al., 2007). Confidence can be thought of as a subjective sense of conviction about one's beliefs and opinions (Gross, Holtz, & Miller, 1995; Petty, Briñol, Tormala, & Wegener, 2007). When people are confident prior to the receipt of a message, they rely on their existing opinions and, in turn, see their current views as correct; therefore there is little need to process additional information on the subject. Conversely, when people are not confident, they doubt their current opinions and views, leading them to perceive that their opinions might be incorrect, which further leads to greater information processing. However, post-message confidence will change the situation completely. Prior research has demonstrated that when people think carefully about an

issue, their thoughts to the message are salient, and these thoughts determine the attitudes formed. In addition, any variable that increases confidence in thoughts is likely to increase reliance on those thoughts in determining attitudes. That is, confidence, as opposed to doubt, led people to rely on the favorable thoughts generated in response to strong arguments, while unfavorable thoughts were generated in response to the weak arguments.

Building upon this logic, we propose that power will have a differential effect depending on when it is induced (before or after menu processing). However, we believe that the underlying psychological mechanisms of our study are different from Briñol et al. (2007). In the current study, when power priming precedes information processing, we hypothesize that individuals will be more likely to rely on *subjective feelings*, and in turn, experience less preference fluency. This is consistent with prior research, which suggests power affects reliance on experiential information (Guinote, 2007d; Weick & Guinote, 2008; Guinote, 2010). While powerful individuals are more guided by experiential information, powerless individuals tend to rely more on the content of the information that they process. Experiential information can be classified into three categories (Schwarz & Clore, 1996): affective feelings (e.g., emotions such as happiness or anger), bodily feelings (e.g., hunger), and feelings that accompany thought processes (e.g., ease of retrieval). Feelings have informative value and can be used as information when individuals lack the motivation to think about the issues being considered (Clore, 1994; Petty, Schumann, Richman, & Strathman, 1993). Individuals believe their feelings to be a sound basis for judgment, and use their feelings in forming their attitudes (Schwarz & Clore, 1983). Accordingly, we propose that powerful individuals (compared to powerless ones) will be more likely to rely on their subjective feelings if power is induced before menu processing.

On the other hand, when power is induced after information processing, individuals will have similar levels of fluency while processing menu information. However, powerful individuals will be less likely to be influenced by such negative feelings, which are consistent with the notion

that power increases positive emotions (Anderson & Berdahl, 2002), optimism (Anderson & Galinsky, 2006), and confidence (Briñol et al., 2007; Fast et al., 2009). The underlying mechanism lays in the positive relationship between power and the behavioral approach system (Keltner et al., 2003). For example, Anderson and Berdahl (2002) have established the effect of power on emotional experience: they suggest that markers of the approach system, including left frontal activity and dopamine, are correlated with increased positive affect (Ashby, Isen, & Turken, 1999; Carver & White, 1994; Davidson, 1992; DePue, 1995; Sutton & Davidson, 1997). Also, people who feel positive affect show a more approach-oriented behavioral style than those who do not (DePue, 1995). In addition, power increases attention towards positive aspects of the environment while decreasing attention towards negative aspects (Anderson & Galinsky, 2006). As such, powerful individuals will be more optimistic as compared to powerless individuals. Lastly, the link between power and confidence has been confirmed by the literature as well. Prior research suggests that high-power (vs. low-power) individuals display behaviors that are best described as “confident”, such as engaging in more touching and flirting behavior, expressing their opinions in public, and so forth (e.g., Gonzaga et al., 2001; Guinote et al., 2002). Conversely, low-power individuals have been found to speak out less and behave passively, which are indications of low confidence (Holtgraves & Lasky, 1999; Hosman, 1989).

Power and confidence

It is important to note that power will increase individuals' feeling of confidence regardless of the timing of power induction (both before and after menu processing). However, while increased confidence might have a positive influence on decision making after menu processing, it could be detrimental in the before condition. More specifically, when power is induced after menu processing, increased confidence will lead to a stronger intention of acting on

an individuals' own interests and goals (Keltner et al., 2003). As such, individuals will be more likely to seek information from others (e.g., friends or servers) without any negative feelings, which attenuates the negative impact of language barriers. On the other hand, when power is induced before menu processing, increased confidence might have a negative impact on preference fluency, because it will make individuals perceive themselves as more capable and have more control over the situation. Subsequently, when they encounter an unexpected difficult situation, that is, the menu information is hard to process due to a language barrier; such unexpected feelings of difficulty will cause individuals to get caught up in unimportant decisions (Sela & Berger, 2012). This is because people, in general, tend to associate difficult tasks with more effort. When a decision feels unexpectedly difficult, they will rely on the reverse inference and perceive the decision as more important. Consequently, they spend more time and effort on it, which increases decision difficulty even further, especially in the context of having language barriers. As such, increased confidence, as a consequence of feeling powerful, will negatively influence preference fluency, which further leads to more suboptimal choices and negative attitudes.

To summarize, we propose that a language barrier will have a negative influence on preference fluency, which further results in suboptimal choices and more negative attitudes towards the choice. However, once individuals correctly attribute the experienced difficulty to a language barrier, the effect will be reduced or eliminated. In addition, the timing of power induction will moderate the effect of a language barrier. When power is induced before the menu presentation, individuals feeling powerful (vs. powerless) will be more likely to rely on subjective experiences. Thus, low preference fluency will lead to more suboptimal choices, which tend to be accompanied with less confidence and greater uncertainty about their choices. On the contrary, if power is induced after one's exposure to the menu, powerful individuals (vs. powerless) will be less likely to be influenced by the subjective feeling of difficulty associated with information

processing due to increased confidence, optimism, and positive emotions. Specifically, we hypothesize that,

H2. The timing of the power induction will moderate the effect of a language barrier on choices. Specifically,

H2a. In the before condition, given a menu with a language barrier, consumers with elevated power will exhibit higher levels of (1) choice deferral, (2) less liking of the menu, and (3) less anticipated satisfaction of the dish. No differences are expected in the low language barrier condition.

H2b. In the after condition, given a menu with a language barrier, consumers with elevated power will exhibit lower level of (1) choice deferral, (2) more liking of the menu, and (3) higher anticipated satisfaction of the dish. No differences are expected in the low language barrier condition.

In addition to power, the current study proposes choice as an additional moderator and hypothesizes that choice will function similarly to power. Such a proposition is based on recent literature in the area of power and choice, which suggests that power and choice are substitutable because they share a common attribute – personal control (Inesi, Botti, Dubois, Rucker, & Galinsky, 2011). Next, we will review the literature in choice and discuss the relationship between power and choice.

Choice

The literature in choice has consistently found that people like having choices, because of its association with self-determination, freedom, and autonomy (Brehm, 1966; deCharms, 1968; Deci, 1975; Heider, 1958; Lewin, 1952; White, 1959). Choice is what enables each person to pursue the objects and activities that best satisfy his or her preferences (Markus & Schwartz, 2010). More freedom is always better than less freedom, because it allows decision makers to maximize utility by finding the best match between their preferences and available alternatives

(Hotelling, 1929). Even when individual preferences are not firmly established, more freedom is still preferred because it motivates decision makers to subjectively bolster their satisfaction with the choice outcomes (Botti & Hsee, 2010; deCharms, 1968; Festinger, 1957; Langer, 1975; Shafir, Simonson, & Tversky, 1993). Moreover, choice is viewed as essential to autonomy, which is absolutely fundamental to well-being (Markus & Schwartz, 2010). According to Markus and Schwartz (2010), choice defines the self because choice is both the engine of independence and the mark of independence. In addition to satisfaction, other positive outcomes of choice include, more enjoyment and higher task performance with individuals' selected activities (Botti & Iyengar, 2004). In general, existing literature suggests that perceived choice (the perception that an experience or outcome is caused by a person's own decision) could result in positive psychological and behavioral outcomes (Hui & Bateson, 1991; Wortman, 1975). Individuals typically prefer making their own choices, rather than having "choices" externally imposed on them (Botti & Iyengar, 2004; Botti & McGill, 2006; Usta & Haubl, 2011).

Moreover, the positive consequences of choice are often apparent even in contexts where the choice itself is trivial, incidental, or even illusory (Botti & Iyengar, 2004; Cordova & Lepper, 1996; Dember, Galinsky, & Warm, 1992; Iyengar & Lepper, 2000; Swann & Pittman, 1977). For example, Dember et al. (1992) examined the effect of choice in vigilance performance. In their study, half of the participants were offered the opportunity to select a "hard" or "easy" version of the task prior to the start of the vigil, whereas the remaining were not given that opportunity. In agreement with the hypothesis, the results suggest that affording the illusion of control leads to increased commitment and hence persistence in the vigilance task.

Choice overload

Interestingly, there is evidence that while having choice is good, more choice is not always better, at least under some circumstances (Markus & Schwartz, 2010). It has been suggested that an overabundance of options sometimes leads to adverse consequences, including a decrease in the motivation to choose, commitment to a choice, or to make any choice at all (Iyengar, Huberman, & Jiang, 2004; Iyengar & Lepper, 2000). Choice overload also produces a decrease in preference strength and satisfaction with the option selected (Chernev, 2003; Iyengar & Lepper, 2000) and an increase in negative emotions (Schwartz, 2000). However, Scheibehenne, Greifeneder, and Todd (2010) conducted a meta-analytic review of choice overload and suggested that the adverse effects due to an increase in the number of choice options are not very robust. The overall effect size was virtually zero with considerable variance between studies. Several necessary preconditions, such as lack of familiarity with the items, were identified. Indeed, the results confirm that "more choice is better" with regard to consumption quantity, and if decision makers had well-defined preferences prior to choice.

Moreover, a growing body of literature suggests that choosing depletes individuals' cognitive resources (e.g., Choi & Fishbach, 2011; Usta & Haubl, 2011). Such an argument is consistent with the research finding that choosing is difficult, paralyzing, and debilitating (Chernev, 2003; Luce, Bettman, & Payne, 1997; Simonson, 1992). Choosing is difficult because choice requires a cognitively complex process that involves weighing many options (Amir and Ariely, 2007). Even simple choices like selecting menu items often involves painful trade-offs that can be emotionally taxing (Choi & Fishbach, 2011). However, Choi and Fishbach (2011) suggest that there are two types of choices - instrumental and experiential choices. While instrumental choices deplete cognitive resources, experiential choices are intrinsically motivating and therefore can be pleasant to make, which increases cognitive resources.

Choice in different cultural contexts

Researchers have found that the meanings and significance of choices vary with the cultural context (Markus & Kitayama, 2003; Snibbe & Markus, 2005; Stephens, Markus, & Townsend, 2007). For instance, Kim and Markus (1999) presented participants with five pens as a gift for completing the survey. Participants were asked to choose the pen they liked. The results show that when the pens were presented in a set of four of one color and one of a different color, 78% of European Americans (vs. 31% of East Asians) picked the unique pen. The findings suggest that depending on the culture, choosing a pen that is different from the others could communicate either a preference for uniqueness (Western culture), or a preference for being like others (Eastern culture).

Choice and services marketing

In the literature of services marketing, several studies have investigated the effect of choice in service settings. Research has shown that giving more choice to the consumers leads to enhanced emotional responses during the consumption experience and higher levels of satisfaction (e.g., Bendapudi & Leone, 2003; Cranage & Sujan, 2004; Hui & Bateson, 1991). Moreover, researchers have examined choice in the context of service failure and have suggested that an informed choice improves post-recovery satisfaction and loyalty, by increasing informational fairness as well as perceived responsibility of service failures (Cranage, 2004; Cranage & Mattila, 2006; Mattila & Cranage, 2005). Recently, Mattila (2010) investigated the role of gender in the context of service recovery. The author examined how offering customers choices between different compensation methods influenced their post-recovery satisfaction. The

results indicate that choice has a positive impact on satisfaction and that females seem to value the act of choosing more so than males.

Choice and power

Power and choice represent two fundamental forces that govern human behavior (Inesi, Botti, Dubois, Rucker, & Galinsky, 2011). Power has often been conceptualized as an interpersonal construct, which involves dependence on and influence over other individuals (Emerson, 1962; Magee & Galinsky, 2008). On the other hand, choice has typically been conceptualized as an intrapersonal construct involving the presence or absence of the ability to select paths and options (Averill, 1973). Despite the conceptual distinction, Inesi et al. (2011) argue that power and choice may have more in common than previously recognized. They propose that power and choice share a common attribute: they both satisfy the need for *personal control*, the belief that events are influenced by and contingent upon one's own behavior and not fate, circumstances, other people, or uncontrollable physical forces (deCharms, 1968; Rotter, 1966).

Perceived control

Prior research suggests that perceived control is a crucial determinant of the quality of two types of interactions - interpersonal and human environmental (Hui & Bateson, 1991). For example, Schutz (1966) proposed control as one of the three kinds of interpersonal needs that drive human social behaviors. A feeling of control is an essential determinant of satisfactory interactions with other people. Similarly, in the area of human environmental psychology, Proshansky, Ittelson, and Rivlin (1974) suggest that people tend to feel and behave more

positively when they perceive more control in the environment. Additionally, studies have shown that perceived control positively influence physiological responses (Szpiler & Epstein, 1976), task performance (Burger, 1987), tolerance to pain and frustration (Sherrod et al., 1977), and physiological well-being (Langer & Rodin, 1976).

Power and perceived control

The proposition that power and choice are both sources of personal control is consistent with past research (Inesi et al., 2011). The literature in power indicates that power emerges from asymmetric control over valuable resources (e.g., Emerson, 1962; Keltner, Gruenfeld, & Anderson, 2003; Magee & Galinsky, 2008). Therefore, it is reasonable to assume that power holders experience control over people and outcomes. In addition, the psychological properties of power might also cause power holders to overestimate their actual control, leading to an illusory sense of control (Fast, Gruenfeld, Sivanathan, & Galinsky, 2009). Fast et al. (2009) conducted four experiments and the results suggested that possessing and experiencing power increased a sense of control over events, even when these events were based on chance or disconnected from the source of the power. Furthermore, the causal relationship between perceived power and feelings of control is bidirectional (Kim & McGill, 2011). Individuals believe they have more power when they have more control (Copeland, 1994; Dépret & Fiske, 1993; Thibaut and Kelley, 1959), and people believe they have more control when they feel powerful (Bargh et al., 1995; Croizet & Claire, 1998; Fast et al., 2009; Galinsky et al., 2003).

Choice and perceived control

Choice has long been used to provide personal control (Averill, 1973; Lefcourt, 1973). For example, Chan, Karbowsky, Monty, and Perlmutter (1986) suggested that the perception of control develops from an opportunity to make choices. Averill (1973) indicated that three main types of personal control are needed to be distinguished, behavioral, cognitive, and decisional. Choice provides decisional control such that individuals who have some degree of choice experience more positive outcomes than those who did not. In addition, Wortman (1975) demonstrated that causality and foreknowledge produced feelings of choice and responsibility as well as feelings of control. Participants who caused their own outcome and knew beforehand what they expected to obtain perceived themselves to have more control over the outcome. The relatively high interrelations between control, choice, and responsibility suggest the possibility that the effects of perceived control in previous studies are mediated by feelings of choice and responsibility.

Given the common attribute – personal control – between power and choice, we propose that choice, similar to power, will increase individuals' reliance on experiential information and interplays with preference fluency. More specifically, when individuals are offered a choice (vs. no choice) *before* menu processing, their decision-making process will be negatively influenced by the feeling of difficulty. When choice is given *after* menu processing (vs. no choice), increased perceived control will offset the negative influence of preference fluency, and lead to more positive outcomes.

H3. The timing of the choice task will moderate the effect of a language barrier on choices of dishes. Specifically,

H3a. Given a menu with a language barrier, consumers who perform the choice task before menu processing will exhibit higher levels of (1) choice deferral, (2) less liking of the menu, and (3) less anticipated satisfaction of the dish. No differences are expected in the low language barrier condition.

H3b. Given a menu with a language barrier, consumers who perform the choice task after menu processing will exhibit lower levels of (1) choice deferral, (2) more liking of the menu, and (3) more anticipated satisfaction of the dish. No differences are expected in the low language barrier condition.

To test our predictions, we propose a series of three experiments to examine the relationships between language barrier, preference fluency, power and choice. Study 1 examines the basic effect of language barrier on preference fluency, and the moderating effect of attribution on a language barrier. Study 2 tests the timing of power induction and how power interplays with a language barrier differently under two distinct timing conditions - priming power *before* or *after* menu processing. Finally, Study 3 substitutes power for choice, to examine the moderating effect of the timing of choice when there is a language barrier in the decision making process. In the next section we will discuss the details of the research design, the pilot study, and the results of the three experiments.

Chapter 3

Methodology

Pilot study

Participants and procedures

The pilot study is a “base” design, which serves the purpose of testing the effectiveness of the manipulation of a language barrier. A total of 87 undergraduate students (30 male, 55 female) participated in the pilot study and were randomly assigned to one of the two conditions, a high vs. a low language barrier. They were asked to read a short scenario in which they imagined they were dining out at an ethnic restaurant. More specifically, they were told that,

A Korean restaurant just opened recently in town and you decided to try it out. As you entered the restaurant, you noticed that the decorations had an overall Korean theme and there were several Korean lanterns that give it the Asian feel. The hostess greeted and sat you right away and handed you a menu.

Depending on the condition, they were presented with either an easily understandable menu ($n = 44$) or a menu containing an intimidating foreign language that they could not easily process ($n = 43$). In the low language barrier condition, a Korean menu with 7 dishes, in which the names of the menu items are translated to English, was presented (e.g., Dumpling soup, Spicy pork, Seafood pancake) to the participants. On the other hand, in the high language barrier condition, the names of the menu items were not translated to English (e.g., *Manduguk*, *Jeyookbokum*, *Haemulpajeon*) on the menu that was presented to the participants. A short written description of each dish was provided in both conditions (e.g., Dumpling soup with rice cakes, beef, egg and green onions; Grilled pork marinated with spicy sauce; and Korean pancake with

squid, shrimp, mussels, and green onions). The experimental stimuli are shown in Appendix A. After reading the menu, participants were asked to select a dish based on their preference. It was followed by a thought-listing task. Participants were asked to list all of the thoughts that they had while reading the menu.

Measures

Dependent variables focused on decision-making, including time spent on information processing, deferring choice to others (servers or friends) (e.g., “If possible, I would like to hear the recommendation from the server,” and “If possible, I would like my friend to recommend a dish for me,” anchoring at 1 = very unlikely and 7 = very likely), regret (3 items adapted from Creyer & Ross, 1999; e.g., “I regret my choice”, “I should have chosen differently”, and “I really don’t feel good about my choice ”; Cronbach’s alpha = .74), confidence (3 items adapted from Fast et al. 2011; e.g., “I feel confident in my choice of dish”, “I am certain of my choice of dish”, and “I’m very sure about what I ordered” with anchor points: 1 = strongly disagree and 7 = strongly agree; Cronbach’s Alpha = .94), menu liking (Cronbach’s alpha = .97) restaurant (Cronbach’s alpha = .96) (3 items adapted from Karmarkar & Tormala, 2010; e.g., “negative-positive, bad-good, and unfavorable-favorable”), and anticipated satisfaction (4 items adapted from Botti & McGill, 2011; e.g., “how much do you think you would like and enjoy the dish you selected”, “how satisfied do you think you would be with the dish”, “how confident do you think you would like the dish” and “how good do you think you would feel about the dish” on a 7-point Likert scale with 1 = not at all and 7 = extremely; Cronbach’s alpha = .97).

Additionally, participants’ affective state (6 items adapted from Kim & Mattila, 2010; e.g., “pleased, happy, joyed”; Cronbach’s alpha = .90; “annoyed, frustrated, and irritated”; Cronbach’s alpha = .88” with anchor points: 1 = not at all and 7 = very much), their familiarity

with ethnic dining (“how familiar are you with dining at Korean restaurants in the US” and “how often do you dine in at Korean restaurants in the US” with anchor points: 1 = not at all and 7 = extremely familiar/very often), language proficiency (“Please indicate your level of Korean language proficiency” ranging from 1 = not at all to 7 = native or bilingual proficiency), perceived authenticity of the restaurant (4 items adapted from Wang’s dissertation, 2011; e.g., “this restaurant makes me feel connected to Korean culture”, “the appeal of the menu matches my impression of Korean culture”, “this restaurant seems to be very Korean to me” and “this is an authentic Korean restaurant”; Cronbach’s alpha = .93), and individual-level traits (e.g., cosmopolitanism) were measured as control variables.

Cosmopolitanism refers to an individual’s willingness to engage with cultures other than his or her own, and to consume cultural differences, coupled with personal competence toward other cultures (Cleveland & Laroche, 2007; Thompson & Tambyah, 1999). Cosmopolitans are more acculturated to global consumer culture, and they are more likely to adopt products from other cultures and places (Alden et al., 1999; Cleveland et al., 2009; Thompson & Tambyah, 1999). Therefore, consumers who are cosmopolitan are more likely to have a positive attitude and anticipated satisfaction towards ethnic dining. Cosmopolitanism was measured via an 11-item, 7-point Likert scale (1 = never true and 7 = always true) adapted from Cleveland and Laroche (2007) (e.g., “I am interested in learning more about people who live in other countries”, “I like to try restaurants that offer food that is different from that in my own culture”, and “I like to observe people from other cultures, to see what I can learn from them”; Cronbach’s alpha = .96).

At the end of the questionnaire, participants were asked to provide basic demographic information such as gender, ethnicity, household income, and education level. A sample questionnaire listing all the measurement items is presented in Appendix A.

Results

To check the manipulation of the language barrier, participants were asked to indicate their agreement with a question “the menu information is difficult to understand” on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The results of the manipulation check suggest that the experimental manipulation was successful. An independent sample t-test shows that participants in the high-language-barrier condition perceived the menu to be more difficult to understand than did those in the low-language-barrier condition ($M_{\text{high-language-barrier}} = 5.17$ vs. $M_{\text{low-language-barrier}} = 4.27$, $t(85) = 3.45$, $p < .05$).

To test the impact of the language barrier, a series of independent sample t-tests were performed (see Table 3-1). As expected, the participants who were in the high language barrier condition spent a significantly longer time ($M = 48.54$ sec) on menu information processing than the ones in the low language barrier condition ($M = 25.38$ sec; $t(85) = -4.37$, $p < .001$). Similarly, when the language barrier is high, participants are more likely to defer the choice to their friends or servers, rather than when language barrier is low. Finally, participants who saw the menu with the low language barrier (vs. the high language barrier) had a more positive attitude with the menu, and higher anticipated satisfaction. However, there was no difference in terms of regret and confidence between those two conditions. Moreover, we performed ANOVA analysis to test the significance of covariates, and all five covariates (affective states, familiarity, language proficiency, perceived authenticity, and cosmopolitanism) were insignificant. In general, participants rated their familiarity with dining at Korean restaurants ($M = 2.79$), frequency of dining at Korean restaurants ($M = 2.05$), and Korean language proficiency ($M = 1.18$) as relatively low, but high on cosmopolitanism ($M = 5.58$). The results indicated that a language barrier would negatively influence individuals’ preference fluency, which leads to higher a level of choice deferral, more negative attitudes towards the menu, and less anticipated satisfaction.

Table 3- 1 Independent Sample T-Test for Dependent Variables

Measurement	Experimental stimuli				t-value	Sig.
	High language barrier		Low language barrier			
	Mean	S.D.	Mean	S.D.		
Time spent on reading the menu	48.54	32.90	25.38	12.35	-4.37	.000
Choice Deferral To Servers	5.47	1.68	4.73	1.70	-2.03	.045
Choice Deferral To Friends	5.35	1.27	4.73	1.48	-2.10	.039
Confidence	5.12	1.61	5.27	1.46	.48	.636
Regret	2.46	1.18	2.33	1.17	-.52	.603
Attitude toward The menu	4.13	1.62	4.86	1.61	2.12	.037
Attitude toward The Restaurant	4.51	1.57	4.54	1.48	.08	.936
Anticipated Satisfaction	4.58	1.35	5.12	1.29	1.93	.057

Study 1. The basic effect of language barrier

Research design

The main purpose of Study 1 is to test the hypothesis that the negative effect of a language barrier will be discounted once people's attention is drawn to the correct source of feeling difficulty. Study 1 employs a 2 (Language barrier: high vs. low) X 2 (Attribution: present vs. absent) between-subjects design. Participants were randomly assigned to one of the four conditions. Half of the participants in each language barrier condition received an additional

sentence stating the following: “This menu may be difficult to understand because of a language barrier.” Similar to the pilot study, after reading the menu, participants were asked to select a dish and complete an online questionnaire.

Participants

A total of 200 adult consumers were drawn from a commercial panel, and 176 of them passed the attention and manipulation checks, and were retained for analysis. Participants were 58% male, with an average age of 35 and a median income level of \$20,000 to \$39, 999. In terms of education level, 43% of the participants hold a college degree. The majority of the participants were Caucasian (74%). Participants were relatively unfamiliar with dining at Korean restaurants ($M = 3.13$ on a 7-point scale with 1 = Not at all and 7 = Very familiar). They did not dine in at Korean restaurants very often ($M = 2.43$ on a 7-point scale from "Not at all" to "Very often"). And their Korean language proficiency was relatively low ($M = 1.26$ on a 7-point with 1 = Not at all and 7 = Native or bilingual fluency).

Measures

Dependent variables included choice deferral (Cronbach's alpha = .68) (e.g., “If possible, I would like to hear the recommendation from the server” anchoring at 1 = very unlikely and 7 = very likely), menu liking (Cronbach’s alpha = .95) (3 items adapted from Karmarkar & Tormala, 2010; e.g., “negative-positive, bad-good, and unfavorable-favorable”), and anticipated satisfaction (4 items adapted from Botti & McGill, 2011; e.g., “how much do you think you would like and enjoy the dish you selected”, “how satisfied do you think you would be with the dish”, “how confident do you think you would like the dish” and “how good do you think you

would feel about the dish” on a 7-point Likert scale with 1 = not at all and 7 = extremely; Cronbach’s alpha = .94).

Similar to the pilot study, a few control variables were measured as well, including participants’ affective state (6 items adapted from Kim & Mattila, 2010; e.g., “pleased, happy, joyed”; Cronbach’s alpha = .92; “annoyed, frustrated, and irritated”; Cronbach’s alpha = .91” with anchor points: 1 = not at all and 7 = very much), their familiarity with ethnic dining (“how familiar are you with dining at Korean restaurants in the US” and “how often do you dine in at Korean restaurants in the US” with anchor points: 1 = not at all and 7 = extremely familiar/very often), language proficiency (“Please indicate your level of Korean language proficiency” ranging from 1 = not at all to 7 = native or bilingual proficiency), perceived authenticity of the restaurant (4 items adapted from Wang’s dissertation, 2011; e.g., “this restaurant makes me feel connected to Korean culture”, “the appeal of the menu matches my impression of Korean culture”, “this restaurant seems to be very Korean to me” and “this is an authentic Korean restaurant”; Cronbach’s alpha = .89), cosmopolitanism (11 items adapted from Cleveland & Laroche, 2007; e.g., “I am interested in learning more about people who live in other countries” anchoring 1 = never true and 7 = always true; Cronbach’s alpha = .95), and decision difficulty (5 items adapted from Shiloh, Koren & Zakay, 2001; e.g., “simple - intricate, easy - difficult, plain - elaborate”; Cronbach’s alpha = .87).

Additionally, another individual level trait was measured as well - need for cognition. According to Cacioppo and Petty’s conceptualization (1982), individuals high in need for cognition are proposed to naturally tend to seek, acquire, think about, and reflect back on information to make sense of stimuli relationships, and events in their world. They have more positive attitudes toward stimuli or tasks that require reasoning, problem solving, and effortful thinking. Therefore, need for cognition was used as a covariate to control for its effect (5 items adapted from Mittal, Huppertz & Khare, 2008; e.g., “I try to anticipate and avoid situations where

there is a likely chance that I'll have to think in depth about something" anchoring 1 = strongly disagree and 7 = strongly agree; Cronbach's alpha = .91).

Results

Manipulation checks

The experimental manipulations were successful. The results indicate that participants in the high language barrier condition spent more time on reading the menu, compared to the ones in the low language barrier condition ($M_{\text{high-language-barrier}} = 35.56$, $M_{\text{low-language-barrier}} = 44.07$, $t = -2.26$, $p\text{-value} < .05$). In addition, participants in the attribution condition responded with a higher level of agreement than those in the no attribution condition to the statement, "Before reading the menu, you were told that you may have difficulty understanding the menu because of language barrier" ($M_{\text{yes}} = 6.40$, $M_{\text{no}} = 1.98$, $t = 20.35$, $p\text{-value} < .001$).

Dependent variables

A series of ANCOVAs were conducted to test the hypotheses. Two covariates - perceived authenticity and cosmopolitanism - were significant for menu liking and anticipated satisfaction. They were included in the ANCOVA analysis for choice deferral as well to keep it consistent with the other two dependent variables. Thus, the rest covariates were excluded from further analysis. Descriptive means are shown in Table 3-2. A correlation table of the dependent variables is shown in Table 3-3.

Table 3- 2 Descriptive Means - Study 1

Language barrier	Attribution	N	Choice deferral	Menu liking	Anticipated satisfaction
Low	Yes	44	5.04 (1.33)	5.95 (1.02)	5.73 (1.11)
Low	No	44	4.44 (1.01)	6.42 (.98)	5.69 (1.11)
High	Yes	42	4.40 (1.20)	6.50 (.82)	5.92 (.89)
High	No	46	4.93 (1.27)	5.69 (1.10)	5.28 (1.10)

Note: Standard deviations are shown in parenthesis,

Table 3- 3 Correlation table of dependent variable (Study 1)

	Choice Deferral	Menu Liking	Anticipated Satisfaction
Choice Deferral	1.0		
Menu Liking	-.009	1.0	
Anticipated Satisfaction	-.134*	.482**	1.0

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Choice Deferral

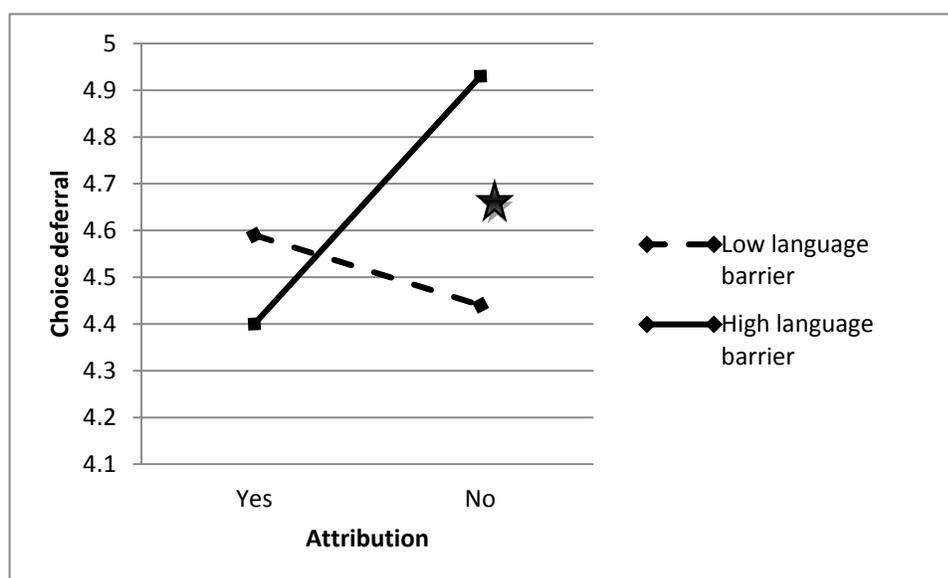
The ANCOVA results (see Table 3-4) indicate that the interaction effect of a language barrier and attribution on choice deferral was significant ($F = 4.75$, $p\text{-value} < .05$). The interaction effect is visualized in Figure 3-1. Planned contrasts showed that when participants were not aware of the correct source (i.e., language barrier) or felt difficulty while menu processing, a high language barrier as compared to a low language barrier led to high choice deferral ($M_{\text{low-language barrier}} = 4.40$, $M_{\text{high-language barrier}} = 5.04$, $t = -2.377$, $p\text{-value} < .05$). However, once participants' attention was directed to the language barrier (i.e., the attribution condition), the effect of the language barrier disappeared ($M_{\text{low-language barrier}} = 4.59$, $M_{\text{high-language barrier}} = 4.44$, $t = .66$, $p\text{-value} = .51$). Therefore, H1a is supported.

Table 3- 4 ANCOVA Results for Choice Deferral

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	15.075	5	3.015	2.099	.068
Intercept	55.477	1	55.477	38.624	.000
Perceived Authenticity	.031	1	.031	.022	.883
Cosmopolitanism	3.310	1	3.310	2.304	.131
Attribution	1.758	1	1.758	1.224	.270
Language Barrier	2.019	1	2.019	1.405	.237
Attribution * Language Barrier	6.497	1	6.497	4.524	.035
Error	244.175	170	1.436		
Total	4024.000	176			
Corrected Total	259.250	175			

Note. $R^2 = .058$ (Adjusted $R^2 = .030$)

Figure 3- 1. Interaction effect of language barrier and attribution on choice deferral



Menu liking

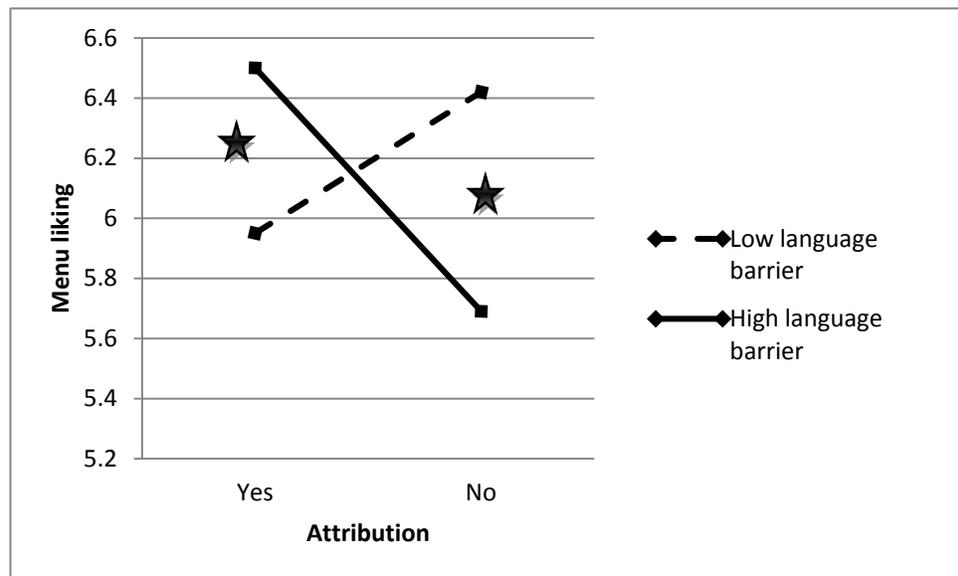
Turning to menu liking, an ANCOVA analysis reveals a significant interaction effect between the language barrier and attribution ($F = 18.23$, $p\text{-value} < .001$). An ANCOVA table is shown in Table 3-5. The interaction is visualized in Figure 3-2. Planned contrasts showed that participants in the no-attribution condition had more positive attitudes toward the low language barrier menu ($M_{\text{low-language-barrier}} = 6.42$, $M_{\text{high-language-barrier}} = 5.69$, $t = 3.27$, $p\text{-value} < .01$). However, participants in the attribution condition exhibited a more positive attitude towards the high language barrier menu ($M_{\text{high-fluency}} = 5.95$, $M_{\text{low-fluency}} = 6.50$, $t = -2.76$, $p\text{-value} < .01$). Consequently, H2b is partially supported.

Table 3- 5 ANCOVA Results for Menu Liking

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	39.597	5	7.919	9.086	.000
Intercept	61.353	1	61.353	70.390	.000
Perceived Authenticity	5.972	1	5.972	6.852	.010
Cosmopolitanism	10.565	1	10.565	12.121	.001
Attribution	1.136	1	1.136	1.303	.255
Language Barrier	1.814	1	1.814	2.082	.151
Attribution * Language Barrier	16.651	1	16.651	19.103	.000
Error	148.175	170	.872		
Total	6802.778	176			
Corrected Total	187.772	175			

Note. $R^2 = .104$ (Adjusted $R^2 = .088$)

Figure 3- 2. Interaction effect of language barrier and attribution on menu liking



Anticipated Satisfaction

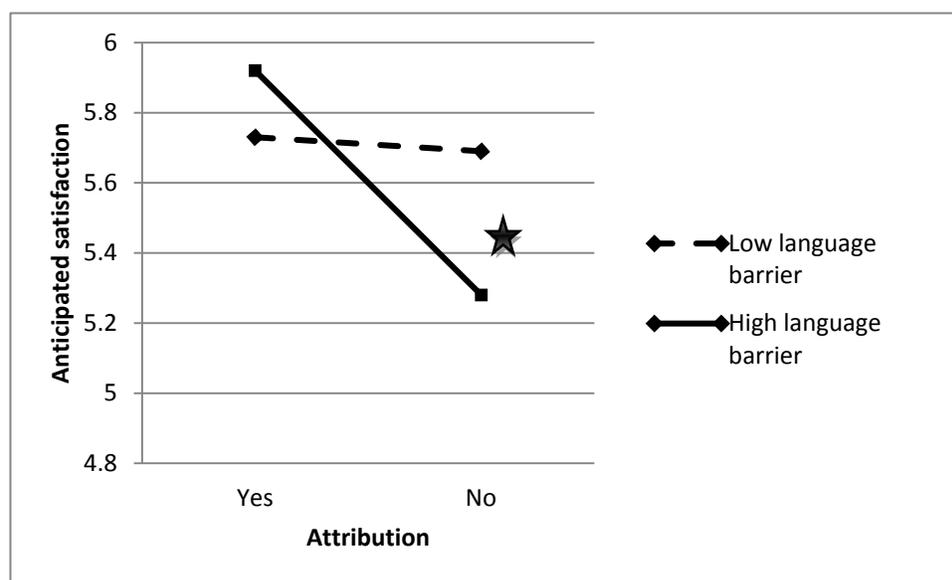
We then examined customers' anticipated satisfaction with the dish they selected, and the results indicate a significant interaction effect of a language barrier and attribution ($F = -3.93$, $p < .05$). This interaction is displayed in Figure 3-3. The results of the ANCOVA analysis are shown in Table 3-6. Planned contrasts indicate that participants in the no-attribution condition showed a higher level of anticipated satisfaction when the menu was easy to read as compared to the high language barrier condition ($M_{\text{low-language-barrier}} = 5.69$, $M_{\text{high-language-barrier}} = 5.28$, $t = 1.73$, $p\text{-value} = .087$). In the attribution condition, the effect of a language barrier on anticipated satisfaction disappeared ($M_{\text{low-language-barrier}} = 5.73$, $M_{\text{high-language-barrier}} = 5.92$, $t = -.868$, $p\text{-value} = .388$). Therefore, H1c is supported.

Table 3- 6 ANCOVA Results for Anticipated Satisfaction

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	41.653	5	8.311	8.721	.000
Intercept	32.044	1	32.044	33.546	.000
Perceived Authenticity	5.148	1	5.148	5.390	.021
Cosmopolitanism	22.063	1	22.063	23.097	.000
Attribution	4.861	1	4.861	5.089	.025
Language Barrier	2.023	1	2.023	2.118	.147
Attribution * Language Barrier	3.749	1	3.749	3.925	.049
Error	162.392	170	.955		
Total	5815.063	176			
Corrected Total	204.045	175			

Note. $R^2 = .204$ (Adjusted $R^2 = .181$)

Figure 3- 3. Interaction effect of language barrier and attribution on anticipated satisfaction



Discussion

Study 1 provides an initial demonstration that a language barrier is a source of low preference fluency, and it has a negative effect on people's decision-making processes. When a language barrier was relatively high, people spent more time on processing the information. People were more likely to defer their choice of dishes to others, liked the menu less, and exhibited a somewhat lower level of anticipated satisfaction with their menu choices. The results are consistent with findings of prior research suggesting that the lack of preference fluency leads to choice deferral (Novemsky et al., 2007), and a more negative judgment of liking (e.g., Bornstein & D' Agostino, 1992, 1994; Zajonc, 1968). However, once participants were informed that they might have difficulty understanding the information because of a language barrier, the negative effect of that language barrier on decision-making was attenuated. Such findings support the moderating role of attribution (Reber et al., 2004). As a result, people in the attribution condition showed similar levels of choice deferral and anticipated satisfaction regardless of the menu. As for menu liking, the data revealed some unexpected results. We hypothesized that participants in the attribution condition would exhibit similar levels of menu liking regardless of the menu type (high/low language barrier). Yet, participants in the high language barrier condition showed more liking of the menu than do their counterparts in the low language barrier condition. One plausible explanation is that the attribution to the language barrier increased perceived authenticity of the menu, thus leading to more liking of the menu. Next, we test the moderating effect of power and the timing of when power is introduced in situations where a language barrier exists.

Study 2. Power and language barrier

Research design

The goal of Study 2 is to show that power induced prior to or after the menu is given to patrons affects information processing and thus produces an interaction with the language barrier on choice. A 2 (language barrier: high vs. low) X 2 (powerful vs. powerless) X 2 (power induction: *before* vs. *after* menu processing) experimental design was employed. In the *before* condition, participants were exposed to the power manipulation first, and then proceeded to the menu. In the *after* condition, menu was shown first to the participants followed by the power manipulation. Power was manipulated via an episodic prime adapted from Galinsky et al. (2003). In the powerful condition, participants read:

Please recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to get something they wanted, or were in a position to evaluate those individuals. Please describe this situation in which you had power – what happened, how you felt, etc.

In the powerless condition, participants were asked to recall and describe an incident in which someone else had power over them. In addition, to reinforce the power manipulation, participants were asked to use words related to having power (e.g., authority, controls, letter) or lacking power (e.g., servant, submit, letter) to make a grammatically correct sentence (Smith & Trope, 2006; Magee, Galinsky, & Gruenfeld, 2007). After being exposed to the manipulations of power and a language barrier, participants were asked to select a dish and complete the online survey.

Participants

A total of 350 college students were recruited to participate in the lab experiment and 259 of them passed the attention and manipulation checks and contributed usable data (40% males,

75% Caucasians). The age of the participants ranged from 18 to 22 with an average age of 19. Participants' frequency of dining in Korean restaurants was low ($M = 2.16$ on a 7-point scale from "Not at all" to "Very often"). Their familiarity with Korean restaurants ($M = 2.60$ on a 7-point scale with 1 = Not at all and 7 = Very familiar) and their level of Korean language proficiency ($M = 1.48$ on a 7-point with 1 = Not at all and 7 = Native or bilingual fluency) were relatively low as well.

Measures

Dependent variables were choice deferral (Cronbach's alpha = .71) (e.g., "If possible, I would like to hear the recommendation from the server" anchoring at 1 = very unlikely and 7 = very likely), menu liking (Cronbach's alpha = .96) (3 items adapted from Karmarkar & Tormala, 2010; e.g., "negative-positive, bad-good, and unfavorable-favorable"), and anticipated satisfaction (4 items adapted from Botti & McGill, 2011; e.g., "how much do you think you would like and enjoy the dish you selected", "how satisfied do you think you would be with the dish", "how confident do you think you would like the dish" and "how good do you think you would feel about the dish" on a 7-point Likert scale with 1 = not at all and 7 = extremely; Cronbach's alpha = .97).

A similar set of control variables as in Study 1 were measured, including participants' affective state (6 items adapted from Kim & Mattila, 2010; e.g., "pleased, happy, joyed"; Cronbach's alpha = .95; "annoyed, frustrated, and irritated"; Cronbach's alpha = .90" with anchor points: 1 = not at all and 7 = very much), their familiarity with ethnic dining ("how familiar are you with dining at Korean restaurants in the US" and "how often do you dine in at Korean restaurants in the US" with anchor points: 1 = not at all and 7 = extremely familiar/very often), language proficiency ("Please indicate your level of Korean language proficiency" ranging from

1 = not at all to 7 = native or bilingual proficiency), perceived authenticity of the restaurant (4 items adapted from Wang's dissertation, 2011; e.g., "this restaurant makes me feel connected to Korean culture", "the appeal of the menu matches my impression of Korean culture", "this restaurant seems to be very Korean to me" and "this is an authentic Korean restaurant"; Cronbach's alpha = .86), cosmopolitanism (11 items adapted from Cleveland & Laroche, 2007; e.g., "I am interested in learning more about people who live in other countries" anchoring 1 = never true and 7 = always true; Cronbach's alpha = .96), decision difficulty (5 items adapted from Shiloh, Koren and Zakay, 2001; e.g., "simple - intricate, easy - difficult, plain - elaborate"; Cronbach's alpha = .84), and need for cognition (5 items adapted from Mittal, Huppertz & Khare, 2008; e.g., "I try to anticipated and avoid situations where there is a likely chance that I'll have to think in depth about something" anchoring 1 = strongly disagree and 7 = strongly agree; Cronbach's alpha = .83).

Moreover, self-efficacy, which could potentially be one of the consequences of power, was measured to serve as a covariate. Self-efficacy is a construct derived from social cognitive theory (Bandura, 1977). It could be defined as perceived capability of task performance. Power is often defined as asymmetric control over valuable resources in social relations (Keltner et al., 2003; Magee & Galinsky, 2008). This definition implies the relative state of dependence between two parties: the low power people depend on the high power people while the high power people are relatively independent. Powerful people perceive that they have more resources, have more control over resources, and are more capable of performing certain tasks (i.e., self-efficacy). Therefore, self-efficacy was measured via 8 items adapted from Chen, Gully, & Eden (2001) (e.g., "I will be able to achieve most of the goals that I have set for myself"; Cronbach's alpha = .90) to control its effect.

Results

Manipulation checks

To check the power manipulation, participants were asked immediately after the manipulation the extent to which they felt powerful on a 7-point scale (1 = not powerful, 7 = powerful) (Rucker et al., 2011). The results indicate that participants in the high-power condition felt more powerful as compared to the ones in the low-power condition ($M_{\text{powerful}} = 4.38$, $M_{\text{powerless}} = 3.06$, $t = .438$, $p\text{-value} < .001$). Additionally, the results reveal that participants in the high language barrier condition spent more time on reading the menu, compared to the ones in the low language barrier condition ($M_{\text{high-language-barrier}} = 29.05$, $M_{\text{low-language-barrier}} = 36.12$, $t = -3.01$, $p\text{-value} < .01$). Overall, these results indicate that the manipulations were successful.

Dependent variables

To test the moderating effect of the timing of power induction, a series of three-way ANCOVAs were conducted with affective responses as the covariates. The cell means are displayed in Table 3-7. Table 3-8 shows the correlations between dependent variables. As hypothesized, there is a significant three-way interaction of language barrier, power, and the timing of power induction on choice deferral ($F = 12.47$, $p\text{-value} < .001$), menu liking ($F = 4.96$, $p\text{-value} < .05$), and anticipated satisfaction of the dish ($F = 13.433$, $p\text{-value} < .001$). ANCOVA results are displayed in Table 3-9 (choice deferral), 3-10 (menu liking), and 3-11 (anticipated satisfaction). Affective state as a covariate was significant, while the other covariates were not significant and were excluded from further analysis.

Table 3- 7 Descriptive Means –Study 2

Timing of power induction	Language barrier	Power	N	Choice deferral	Menu liking	Anticipated satisfaction
Before	Low	High	34	3.83 (1.33)	5.32 (.97)	5.22 (1.45)
Before	Low	Low	30	4.20 (1.09)	5.23 (1.07)	4.47 (1.22)
Before	High	High	33	4.92 (1.01)	3.76 (1.62)	4.05 (1.45)
Before	High	Low	32	4.02 (1.16)	4.67 (1.34)	4.29 (1.40)
After	Low	High	36	4.48 (1.42)	5.17 (1.64)	5.44 (1.21)
After	Low	Low	34	4.49 (1.18)	4.58 (1.39)	5.12 (.98)
After	High	High	31	4.34 (1.44)	4.76 (1.36)	5.27 (.91)
After	High	Low	29	5.24 (1.04)	4.58 (1.47)	4.40 (1.04)

Note: Standard deviations are in parentheses

Table 3- 8 Correlation table of dependent variables (Study 2)

	Choice Deferral	Menu Liking	Anticipated Satisfaction
Choice Deferral	1.0		
Menu Liking	-.140*	1.0	
Anticipated Satisfaction	-.090	.310**	1.0

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3- 9 ANCOVA Results for Choice Deferral

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	51.166	9	5.685	3.772	.000
Intercept	145.804	1	145.804	96.727	.000
Positive Affect State	4.270	1	4.270	2.833	.094
Negative Affect State	1.591	1	1.591	1.055	.305
Power	.681	1	.681	.452	.502
Language Barrier	9.454	1	9.454	6.272	.013
Timing	8.966	1	8.966	5.948	.015
Power *	.418	1	.418	.277	.599
Language Barrier					
Power * Timing	8.123	1	8.123	5.389	.021
Language Barrier *	.228	1	.228	.152	.697
Timing					
Power *	15.583	1	15.583	10.338	.001
Language Barrier *					
Timing					
Error	375.336	249	1.507		
Total	5517.889	259			
Corrected Total	426.501	285			

Note. $R^2 = .120$ (Adjusted $R^2 = .088$)

Table 3- 10 ANCOVA Results for Menu Liking

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	123.898	9	13.766	8.239	.000
Intercept	204.468	1	204.468	122.366	.000
Positive Affect State	14.561	1	14.561	8.714	.003
Negative Affect State	18.909	1	18.909	11.316	.001
Power	3.678	1	3.678	2.201	.139
Language Barrier	36.016	1	36.016	21.554	.000
Timing	.185	1	.185	.110	.740
Power * Language Barrier	13.448	1	13.448	8.048	.005
Power * Timing	11.569	1	11.569	6.923	.009
Language Barrier * Timing	17.758	1	17.758	10.628	.001
Power * Language Barrier * Timing	7.874	1	7.874	4.712	.031
Error	416.069	249	1.671		
Total	6419.333	259			
Corrected Total	539.967	285			

Note. $R^2 = .229$ (Adjusted $R^2 = .202$)

Table 3- 11 ANCOVA Results for Anticipated Satisfaction

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	102.730	9	11.414	8.223	.000
Intercept	154.932	1	154.932	111.614	.000
Positive Affect State	21.366	1	21.366	15.393	.000
Negative Affect State	1.397	1	1.397	1.006	.317
Power	4.494	1	4.494	3.238	.073
Language Barrier	24.693	1	24.693	17.789	.000
Timing	14.777	1	14.777	10.646	.001
Power * Language Barrier	2.428	1	2.428	1.749	.187
Power * Timing	2.457	1	2.457	1.770	.185
Language Barrier * Timing	2.236	1	2.236	1.611	.206
Power * Language Barrier * Timing	18.860	1	18.860	13.587	.000
Error	345.638	249	1.388		
Total	6425.813	259			
Corrected Total	448.368	285			

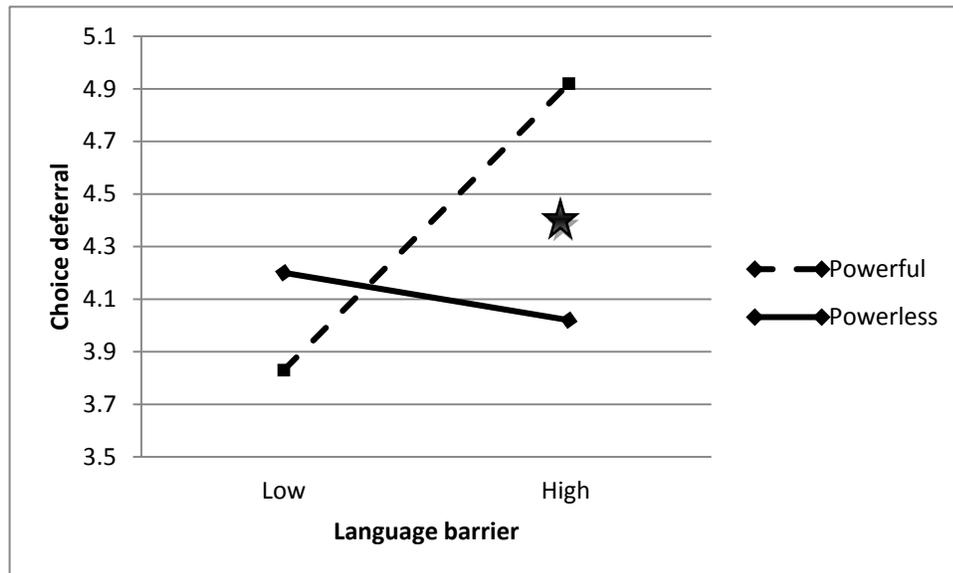
Note. $R^2 = .229$ (Adjusted $R^2 = .201$)

To interpret the three-way interaction, separate two-way ANCOVA models were performed for the *before* and *after* conditions (i.e., the timing of power induction: *before* or *after* menu processing).

Choice Deferral

For choice deferral, when power was induced *before* menu processing, the results reveal a significant interaction effect of power and the language barrier ($F = 9.662$, $p\text{-value} < .05$) (Figure 3-4). Planned contrasts indicate that when the language barrier was high, participants who felt powerful as compared to powerless were more likely to defer their choice of dish ($M_{\text{powerful}} = 4.92$, $M_{\text{powerless}} = 4.02$, $t = 3.350$, $p\text{-value} < .01$). However, when language barrier was relatively low, the effect of power disappeared ($M_{\text{powerful}} = 3.83$, $M_{\text{powerless}} = 4.20$, $t = -1.189$, $p\text{-value} = .239$). Therefore, $H2a_1$ is supported.

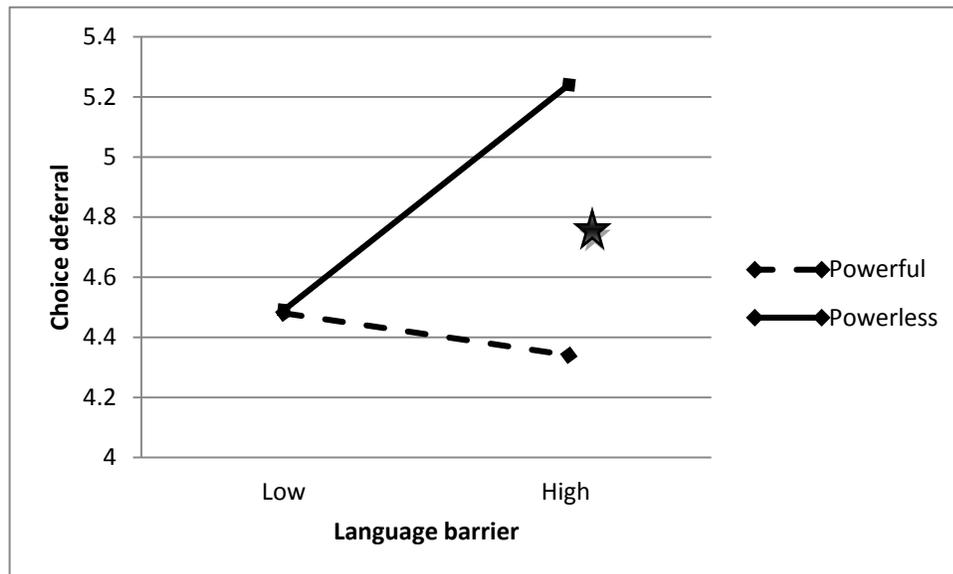
Figure 3- 4. Interaction effect of power and language barrier on choice deferral in the *before* condition



When power was induced *after* menu processing, the interaction effect of power and language barrier was marginally significant ($F = 3.814$, $p = .053$) (Figure 3-5). Planned contrasts show that when the language barrier was high, participants feeling powerless as opposed to powerful were more likely to defer the choice ($M_{\text{powerful}} = 4.34$, $M_{\text{powerless}} = 5.24$, $t = -2.737$, p -

value $<.01$), which was different from the *before* condition. When language barrier was low, power failed to influence on choice deferral ($M_{\text{powerful}} = 4.48$, $M_{\text{powerless}} = 4.49$, $t = -.028$, $p\text{-value} = .978$). Thus, $H2b_1$ is supported.

Figure 3- 5. Interaction effect of power and language barrier on choice deferral in the *after* condition

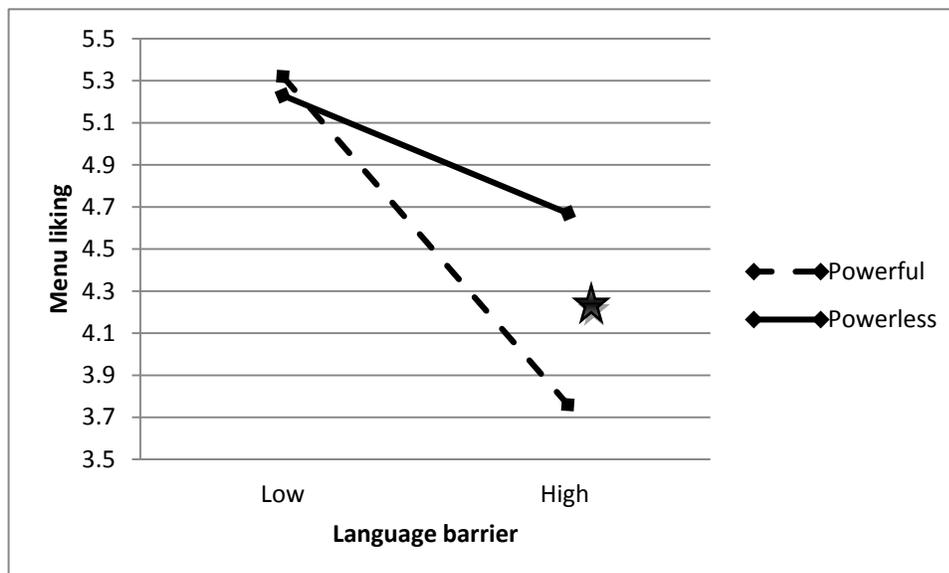


Menu Liking

We performed similar analysis on menu liking. In the *before* menu processing condition, the interaction effect of power and language barrier was significant ($F = 8.659$, $p\text{-value} <.01$) (see Figure 3-6). Planned contrasts reveal that when the language barrier was high, participants with a low power state (vs. a high power state) tended to have more positive attitudes toward the menu ($M_{\text{powerful}} = 3.76$, $M_{\text{powerless}} = 4.67$, $t = -2.456$, $p\text{-value} <.05$). On the other hand, when the language barrier was low, participants' level of menu liking did not differ across the power conditions ($M_{\text{powerful}} = 5.32$, $M_{\text{powerless}} = 5.23$, $t = .352$, $p\text{-value} = .726$). In the *after* menu processing

condition, the interaction effect of power and the language barrier was not significant ($F = .023$, $p\text{-value} = .880$). Based on the results, $H2a_2$ and $H2b_2$ are not supported.

Figure 3- 6. . Interaction effect of power and language barrier on menu liking in the *before* condition



Anticipated Satisfaction

As for anticipated satisfaction, when power was induced *before* menu processing, the results reveal a significant interaction effect of power and the language barrier ($F=7.790$, $p\text{-value} < .01$) (Figure 3-7). Planned contrasts suggest that when the language barrier was high, the power state did not influence participants' anticipated satisfaction ($M_{\text{powerful}} = 4.05$, $M_{\text{powerless}} = 4.29$, $t = -.686$, $p\text{-value} = .495$). When the language barrier was low, individuals who felt powerful (vs. powerless) tended to have higher levels of anticipated satisfaction ($M_{\text{powerful}} = 5.22$, $M_{\text{powerless}} = 4.47$, $t = 2.21$, $p\text{-value} < .05$). Therefore, $H2a_3$ is not supported. Additionally, when power is induced *after* menu processing, the interaction effect of power and the language barrier was

significant ($F = 4.982, p < .05$) (Figure 3-8). Planned contrasts indicate that when the language barrier was high, individuals who felt powerful (vs. powerless) had a higher level of anticipated satisfaction ($M_{\text{powerful}} = 5.27, M_{\text{powerless}} = 4.40, t = 3.428, p\text{-value} < .01$). When the language barrier was low, participants in the different power conditions had similar levels of anticipated satisfaction ($M_{\text{powerful}} = 5.44, M_{\text{powerless}} = 5.12, t = 1.204, p\text{-value} = .23$). Therefore, $H2b_3$ is supported.

Figure 3- 7. Interaction effect of power and language barrier on anticipated satisfaction in the *before* condition

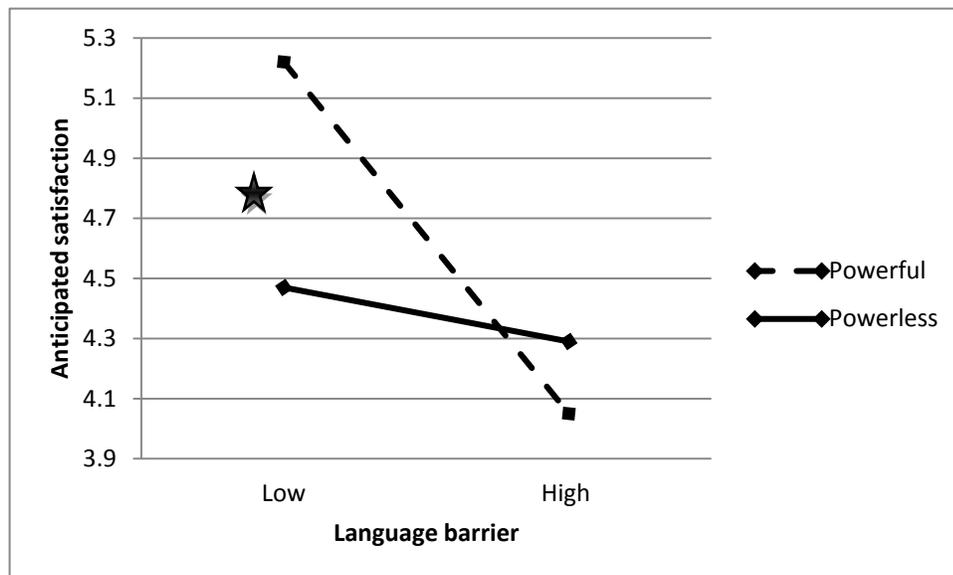
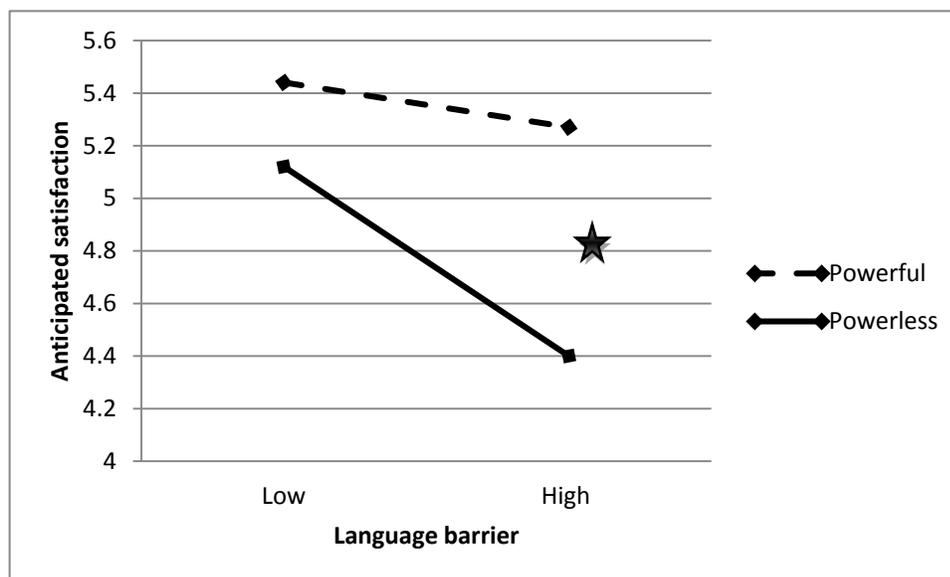


Figure 3- 8. Interaction effect of power and language barrier on anticipated satisfaction in the *after* condition



Discussion

The results of this study lend support to Briñol et al.'s (2007) argument that the effect of power varies depending upon when power is inducted - *before* or *after* information processing. When power is induced *before* menu processing, the results indicate that when the language barrier is relatively high, powerful participants (vs. powerless) are more likely to rely on their subjective experiences of difficulty associated with information processing (Guinote, 2010; Thompson & Ince, 2013), thus resulting in choice deferral and less liking of the menu. However, participants' anticipated satisfaction is not different across power conditions (high vs. low). We believe that such an unexpected finding could be explained by the positive link between power and confidence (Fast et al., 2009). Individuals in the high power condition are more likely to defer their choices and report low level of menu liking. Yet the people in the high power

condition still feel confident about their choice, which results in a similar level of anticipated satisfaction to people the low power condition.

On the other hand, when power is induced *after* menu processing, powerful participants are less likely to be influenced by a language barrier, which is consistent with the notion that power increases optimism (Anderson & Galinsky, 2006), confidence (Briñol et al., 2007), and illusory control (Fast et al., 2009). As a consequence, participants in the powerful condition (vs. powerless condition) are less likely to defer their choice, and have a higher level of anticipated satisfaction of the dish they select. Nevertheless, the interaction effect of power and a language barrier on menu liking is not significant in the *after* condition. A potential explanation could be that individuals who feel powerful are more likely to act on their own wills (Keltner et al., 2003) and their attitudes are more consistent with their feelings (Guinote, 2010). When they are asked to choose a dish from a menu that is hard to understand, the choice itself involves painful trade-offs that can be emotionally taxing (Choi & Fishbach, 2011). Thus, even though power attenuates some of the negative consequences of a language barrier (choice deferral and low anticipated satisfaction), participants still show less liking of the menu. Next, we introduce choice as another moderator, and test the effect of the timing of choice given a language barrier and individuals' decision-making.

Study 3. Choice and language barrier

Research design

The purpose of experiment 3 is to test the substitutability of power and choice, and to show that choice will have similar effect as power on a language barrier. A 2(language barrier: high vs. low) X 2 (choice: present vs. absent) X 2 (the timing of choice given: *before* vs. *after*

menu processing) experimental design was employed. To manipulate choice, in the *before* condition, participants were asked to select their preferred seating area prior to seeing the menu. The scenario included the following: “The hostess greets you and asks if you would like to sit by the windows to see the view, or if you would prefer to sit in the back, which is more quiet and private.” In the *after* condition, participants were told that the restaurant is full at this moment, so the hostess greets them and hands them a menu to read while they are waiting. Choice (selecting a seating area) was given after they read the menu. Similar to Study 1 and Study 2, after being exposed to the manipulations of choice and a language barrier, participants were asked to select a dish and complete the online survey.

Participants

A total of 300 participants were recruited from a commercial panel and 271 of them passed the attention and manipulation checks and contributed usable data. Participants were 58% male, with an average age of 34, a median income level of \$40,000 to \$59,999, and a majority was Caucasian (77%). Among the participants, 40% of them hold a college degree. In addition, participants’ familiarity ($M = 2.95$ on a 7-point scale with 1 = Not at all and 7 = Very familiar) and frequency ($M = 2.25$ on a 7-point scale from "Not at all" to "Very often") of dining at Korean restaurants were relatively low, so was their Korean language proficiency ($M = 1.21$ on a 7-point with 1 = Not at all and 7 = Native or bilingual fluency).

Measures

Dependent variables were choice deferral (Cronbach's alpha = .73) (e.g., “If possible, I would like to hear the recommendation from the server” anchoring at 1 = very unlikely and 7 =

very likely), menu liking (Cronbach's alpha = .97) (3 items adapted from Karmarkar & Tormala, 2010; e.g., "negative-positive, bad-good, and unfavorable-favorable"), and anticipated satisfaction (4 items adapted from Botti & McGill, 2011; e.g., "how much do you think you would like and enjoy the dish you selected", "how satisfied do you think you would be with the dish", "how confident do you think you would like the dish" and "how good do you think you would feel about the dish" on a 7-point Likert scale with 1 = not at all and 7 = extremely; Cronbach's alpha = .96).

A similar set of control variables as in Study 1 and 2 were measured, including participants' affective state (6 items adapted from Kim & Mattila, 2010; e.g., "pleased, happy, joyed"; Cronbach's alpha = .89; "annoyed, frustrated, and irritated"; Cronbach's alpha = .93" with anchor points: 1 = not at all and 7 = very much), their familiarity with ethnic dining ("how familiar are you with dining at Korean restaurants in the US" and "how often do you dine in at Korean restaurants in the US" with anchor points: 1 = not at all and 7 = extremely familiar/very often), language proficiency ("Please indicate your level of Korean language proficiency" ranging from 1 = not at all to 7 = native or bilingual proficiency), perceived authenticity of the restaurant (4 items adapted from Wang's dissertation, 2011; e.g., "this restaurant makes me feel connected to Korean culture", "the appeal of the menu matches my impression of Korean culture", "this restaurant seems to be very Korean to me" and "this is an authentic Korean restaurant"; Cronbach's alpha = .91), cosmopolitanism (11 items adapted from Cleveland & Laroche, 2007; e.g., "I am interested in learning more about people who live in other countries" anchoring 1 = never true and 7 = always true; Cronbach's alpha = .95), decision difficulty (5 items adapted from Shiloh, Koren & Zakay, 2001; e.g., "simple - intricate, easy - difficult, plain - elaborate"; Cronbach's alpha = .89), and need for cognition (5 items adapted from Mittal, Huppertz & Khare, 2008; e.g., "I try to anticipated and avoid situations where there is a likely chance that I'll have to think in depth about something" anchoring 1 = strongly disagree and 7 = strongly agree;

Cronbach's alpha = .90), self-efficacy (8 items adapted from Chen, Gully, & Eden, 2001; e.g., "I will be able to achieve most of the goals that I have set for myself"; Cronbach's alpha = .93), and choice effort (4 items adapted from Heitmann, Lehmann, & Herrmann, 2007; e.g., "I could not afford the time to fully evaluate relevant purchase options"; Cronbach's alpha = .71)..

Results

Manipulation checks

In Study 3, participants exhibited higher levels of agreement to the statement that "In the scenario, the hostess asked you to choose the seating area" ($M_{\text{choice}} = 6.60$, $M_{\text{no-choice}} = 2.66$, $t = 28.224$, $p\text{-value} < .001$) when they were in the choice condition (vs. no-choice condition). In addition, the results indicate that participants in the high language barrier condition spent more time on reading the menu, compared to the ones in the low language barrier condition ($M_{\text{high-language-barrier}} = 45.93$, $M_{\text{low-language-barrier}} = 69.96$, $t = -3.42$, $p\text{-value} < .01$). The results of these manipulation checks suggest that the experimental manipulations of a language barrier and choice were successful.

Dependent variables

To test the effect of choice, a language barrier, and the timing of the given choice, a series of three-way ANCOVAs were conducted. None of the covariates were significant. Therefore, they were dropped out of the analysis and ANOVA results were reported. Cell means are displayed in Table 3-12 and the correlations are shown in Table 3-13. The results indicate a significant three-way interaction of the three variables on choice deferral ($F = 13.121$, $p\text{-}$

value<.001), menu liking ($F = 3.948$, $p\text{-value} = .064$, marginally significant), and anticipated satisfaction of the dish ($F = 7.391$, $p\text{-value} < .01$). The results of ANOVA analysis are shown in Table 3-14 (choice deferral), 3-15 (menu liking), and 3-16 (anticipated satisfaction). To interpret the three-way interaction, separate two-way ANOVA models were performed for the *before* and *after* conditions.

Table 3- 12 Descriptive Means – Study 3

Timing of choice given	Language barrier	Choice	N	Choice deferral	Menu liking	Anticipated satisfaction
Before	Low	Yes	35	3.70 (1.34)	5.98 (1.10)	6.01 (.94)
Before	Low	No	34	3.79 (1.61)	5.49 (.97)	5.36 (.83)
Before	High	Yes	32	5.73 (.96)	4.77 (1.22)	4.99 (1.00)
Before	High	No	36	4.54 (1.28)	5.12 (1.56)	5.73 (1.03)
After	Low	Yes	35	3.80 (1.55)	5.99 (.90)	5.69 (.90)
After	Low	No	37	3.63 (1.47)	5.47 (1.18)	5.69 (.84)
After	High	Yes	32	4.40 (1.20)	5.44 (1.01)	5.84 (.97)
After	High	No	30	5.32 (1.06)	4.67 (1.64)	5.31 (1.53)

Note: Standard deviations are in parentheses

Table 3- 13 Correlation table of dependent variables (Study 3)

	Choice Deferral	Menu Liking	Anticipated Satisfaction
Choice Deferral	1.0		
Menu Liking	-.163**	1.0	
Anticipated Satisfaction	-.113	.284**	1.0

*. Correlation is significant at the 0.05 level (2-tailed).

**.. Correlation is significant at the 0.01 level (2-tailed).

Table 3- 14 ANOVA Results for Choice Deferral

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	145.074	7	20.725	11.512	.000
Intercept	5147.759	1	5147.759	2859.378	.000
Choice	.536	1	.536	.298	.586
Language Barrier	108.153	1	108.153	60.075	.000
Timing	1.547	1	1.547	.859	.355
Choice * Language Barrier	.133	1	.133	.074	.786
Choice * Timing	14.128	1	14.128	7.848	.005
Language Barrier * Timing	1.005	1	1.005	.558	.456
Choice * Language Barrier * Timing	23.623	1	23.623	13.121	.000
Error	473.481	263	1.800		
Total	5704.444	271			
Corrected Total	618.555	270			

Note. $R^2 = .235$ (Adjusted $R^2 = .214$)

Table 3- 15 ANOVA Results for Menu Liking

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	55.940	7	7.991	5.333	.000
Intercept	7774.959	1	7774.959	5188.839	.000
Choice	8.451	1	8.451	5.640	.018
Language Barrier	36.304	1	36.304	24.229	.000
Timing	.169	1	.169	.113	.737
Choice * Language Barrier	1.476	1	1.476	.985	.322
Choice * Timing	5.594	1	5.594	3.733	.054
Language Barrier * Timing	.180	1	.180	.120	.729
Choice * Language Barrier * Timing	5.170	1	5.170	3.450	.064
Error	394.079	263	1.498		
Total	8312.111	271			
Corrected Total	450.020	270			

Note. $R^2 = .124$ (Adjusted $R^2 = .101$)

Table 3- 16 ANOVA Results for Anticipated Satisfaction

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	25.385	7	3.509	3.509	.001
Intercept	8405.863	1	8405.863	8133.458	.000
Choice	.794	1	.794	.769	.381
Language Barrier	3.225	1	3.225	3.121	.078
Timing	.840	1	.840	.813	.368
Choice * Language Barrier	3.175	1	3.175	3.072	.081
Choice * Timing	1.589	1	1.589	1.538	.216
Language Barrier * Timing	.736	1	.736	.712	.399
Choice * Language Barrier * Timing	15.673	1	15.673	15.165	.000
Error	271.808	263	1.033		
Total	8772.250	271			
Corrected Total	297.194	270			

Note. $R^2 = .085$ (Adjusted $R^2 = .061$)

Choice deferral

First, we examined the effect of the language barrier, choice, and the timing of the given choice on choice deferral. In the *before* menu processing condition, there is a significant interaction effect of choice and the language barrier ($F = 7.852$, p -value $< .01$) (Figure 3-9).

Planned contrasts indicate that when the language barrier was relatively high, participants given a choice of a preferred seating area (vs. no choice condition) were more likely to defer their choices on dish selection ($M_{\text{choice}} = 5.73$, $M_{\text{no-choice}} = 4.54$, $t = 4.240$, p -value $< .001$). When the language

barrier was low, participants in both the choice and no-choice conditions exhibited similar levels of intentions to defer their choice of dish ($M_{\text{choice}} = 3.70$, $M_{\text{no-choice}} = 3.79$, $t = -.250$, $p\text{-value} = .803$). Thus, $H3a_1$ is supported.

The interaction effect of the language barrier and choice is significant in the *after* menu processing condition as well ($F = 5.421$, $p\text{-value} < .05$) (Figure 3-10). Planned contrasts show that when the language barrier was high, participants given a choice (vs. no choice) were less likely to defer their choice of dishes ($M_{\text{choice}} = 4.40$, $M_{\text{no-choice}} = 5.32$, $t = -3.160$, $p\text{-value} < .01$). On the other hand, when the language barrier was low, the choice effect disappeared ($M_{\text{choice}} = 3.80$, $M_{\text{no-choice}} = 3.63$, $t = .500$, $p\text{-value} = .619$). The results support $H3b_1$.

Figure 3- 9 Interaction effect of choice and language barrier on choice deferral in the *before* condition

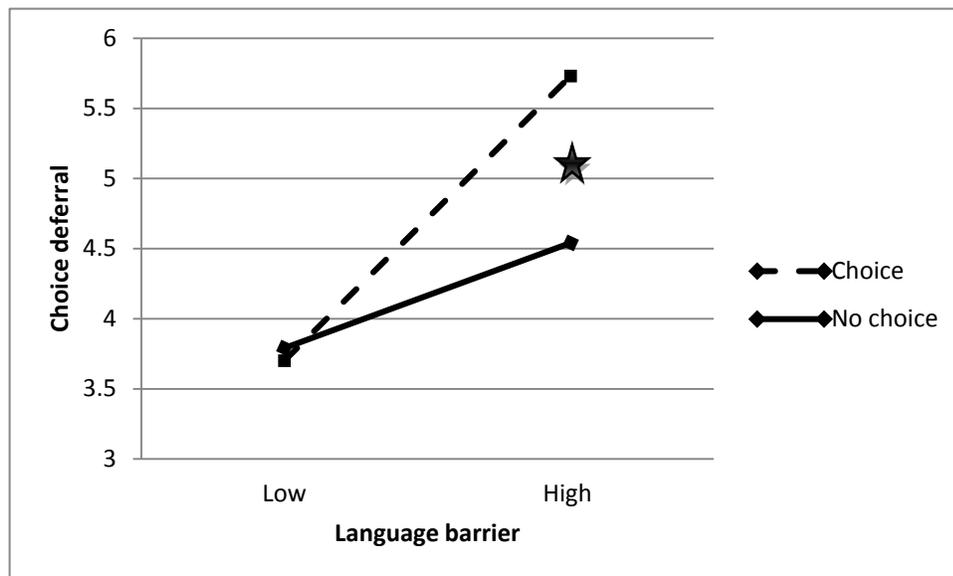
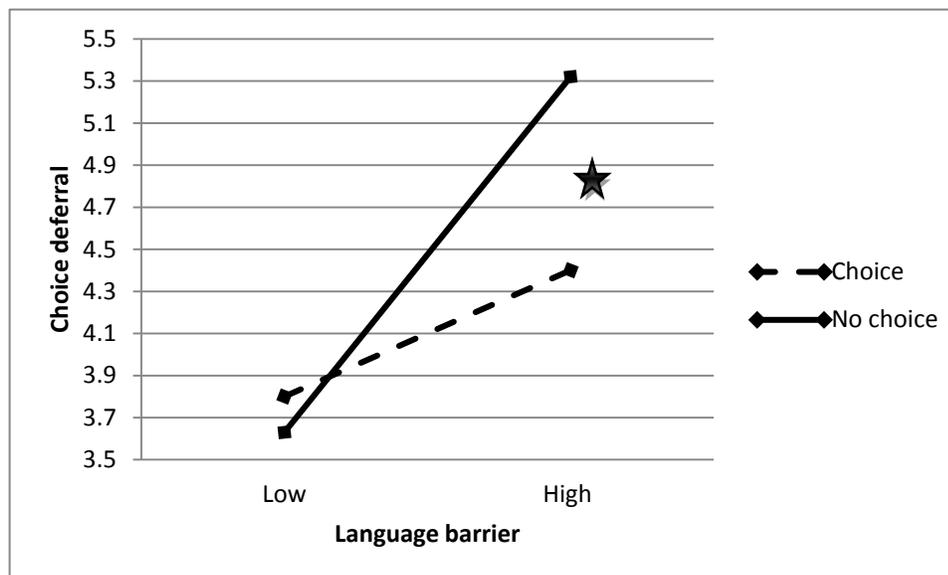


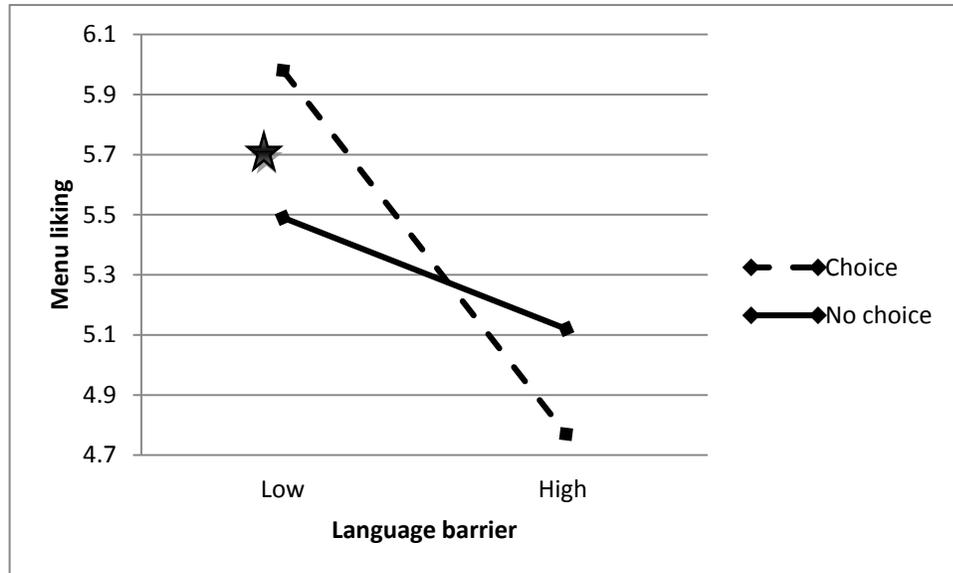
Figure 3- 10 Interaction effect of choice and language barrier on choice deferral in the *after* condition



Menu liking

In addition, we looked at menu liking, and the results revealed a significant interaction effect of choice and language barrier when choice was given *before* menu processing ($F = 5.090$, $p\text{-value} < .05$) (see Figure 3-11). Planned contrasts suggest that when the language barrier was high, participants' liking of the menu were not different across the choice conditions ($M_{\text{choice}} = 4.77$, $M_{\text{no-choice}} = 5.12$, $t = -1.043$, $p\text{-value} = .301$). When the language barrier was low, the effect of choice was marginally significant, such that participants exhibited more menu liking when they chose the seating area *before* menu processing ($M_{\text{choice}} = 5.98$, $M_{\text{no-choice}} = 5.49$, $t = 1.948$, $p\text{-value} = .056$). In the *after* condition, the interaction effect of choice and the language barrier was not significant ($F = .380$, $p\text{-value} = .539$). Therefore, $H3a_2$ and $H3b_2$ are not supported.

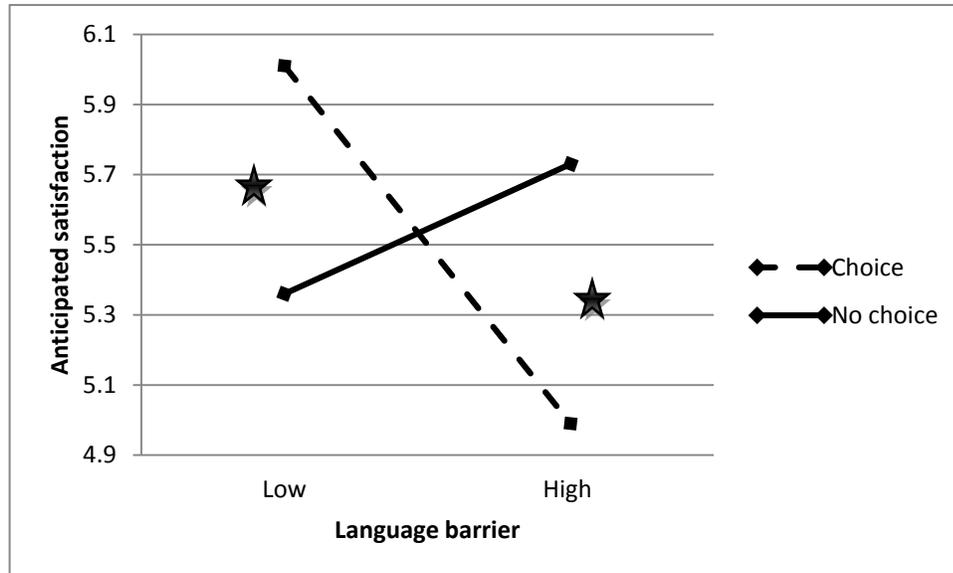
Figure 3- 11 Interaction effect of choice and language barrier on menu liking in the before condition



Anticipated satisfaction

Finally, for anticipated satisfaction, the results suggest a significant interaction effect of choice and a language barrier in the *before* condition ($F = 6.071$, $p\text{-value} < .05$) (see Figure 3-12). Planned contrasts suggest that when the language barrier was high, participants' anticipated satisfaction were higher than in the no-choice condition (vs. choice condition) ($M_{\text{choice}} = 4.99$, $M_{\text{no-choice}} = 5.73$, $t = -2.874$, $p\text{-value} < .01$). When the language barrier was low, participants tended to be more satisfied when they were given a choice of seating area ($M_{\text{choice}} = 6.01$, $M_{\text{no-choice}} = 5.36$, $t = 3.128$, $p\text{-value} < .01$). In the *after* condition, the interaction effect of a language barrier and choice was not significant ($F = 2.077$, $p\text{-value} = .152$). The results partially support H3a₃, but not H3b₃.

Figure 3- 12 Interaction effect of choice and language barrier on anticipated satisfaction in the *before* condition



Discussion

The results of Study 3 provide support for the findings that power and choice are substitutable, because both of them can satisfy the basic human need for personal control (Inesi et al., 2011). Similar to power, giving a choice to individuals increases their reliance on experiential information, that is, the feeling of difficulty caused by a lack of preference fluency. Interestingly, the interplay of choice and a language barrier also depends on the timing of the choice task, which is similar to the effect of the timing of introducing power as suggested by Briñol et al. (2007). When the choice task takes place *before* menu processing, participants in the high language barrier condition show higher levels of choice deferral and lower anticipated satisfaction levels when they perform the choice task first (vs. no choice condition). However, participants exhibit a similar level of menu liking across choice conditions. Such a finding is inconsistent with Study 2. We believe it is due to the fact that the no-choice condition in Study 3 does not perfectly match the powerless condition in Study 2. While the feeling of being powerless reduces

individuals' reliance on experiential information, the no-choice condition in Study 3 has no influence on preference fluency. Further, the significant interaction effect of choice and the language barrier is driven by the low language barrier condition. Similarly, we observe an unexpected significant result on anticipated satisfaction in the low language barrier condition. A plausible explanation is that people like having choices – “more choice is better” (Brehm, 1966; deCharms, 1968; Deci, 1975; Heider, 1958; Scheibehenne et al., 2010). Therefore, giving participants more choices boosts how much they like the menu, as well as their anticipated satisfaction when the language barrier is relatively low.

On the other hand, when the choice task takes place *after* menu processing, participants in the high language barrier condition are less likely to defer their choice to servers/friends when they are given a choice about preferable seating area (vs. no choice). Unexpectedly, the interaction effect of a language barrier and choice is not significant on menu liking and anticipated satisfaction. Possibly, such a finding is due to the contrast effect of preference fluency (Shen, Jiang, & Adaval, 2010). In Study 3, participants were provided with two choices: selecting the seating area and selecting a dish from the menu. Prior research demonstrates that the processing fluency associated with an object might influence subsequent evaluations (Shen, Jiang, & Adaval, 2010; Dreisbach & Fischer, 2011; Wilcox & Song, 2011). For example, according to Shen et al. (2010), the processing fluency elicited by performing one task could influence judgments on a second product either in the same direction (an assimilation effect) or in the opposite direction (a contrast effect). The assimilation effect suggests that the feelings elicited by processing one stimulus might be more likely to transfer to another stimulus that is encountered subsequently, if the two stimuli are believed as related. On the other hand, when two stimuli are seen as unrelated, the increase of processing disfluency of the first product will make the valuations of the second product become more favorable. Since the two choices provided in the current study were not related, we would predict the results to follow the contrast effect.

Therefore, in the *after* condition, low preference fluency caused by the contrast effect offsets the increased perceived control provided by choice, which results in similar levels of menu liking and anticipated satisfaction compared to the no-choice condition.

Chapter 4

General Discussion

The present research conducted one pilot study and three main experiments to examine the underlying psychological mechanisms and moderating variables on the effect of language barriers in the context of ethnic dining. More specifically, this research identified language barriers as a source of low preference fluency and examined several boundary conditions for the fluency effect. We bring together three streams of research - preference fluency, power, and choice - by considering individuals' reliance on experiential information. Power and choice provide the human need of personal control, which in turn increases individuals' reliance on meta-cognitive cues such as preference fluency. Interestingly, such an effect was only observed when power and choice were induced before menu processing. When power was elevated or a choice task was performed after one's exposure to the menu, the negative impact of the language barrier was attenuated.

The objective of Study 1 was to investigate the negative effect of language barriers - a source of low preference fluency - on decision-making. The results support the hypothesis that a high language barrier (vs. a low language barrier) leads to a lower level of preference fluency, thus resulting in higher likelihood of choice deferral, less liking of the choice, and a lower level of anticipated satisfaction of the dish. The findings demonstrate that individuals exposed to a menu in an unfamiliar language tend to automatically draw the conclusion that the choice task is difficult (i.e., it is hard to select a dish), which in turn results in a series of negative consequences. This is consistent with prior research showing that the subjective experience of difficulty leads to a belief that the choice itself is difficult (Novemsky et al., 2007). Such an inference is drawn without recognizing the correct sources for the feelings of difficulty while performing a task.

However, the attribution process can moderate the negative effect of a language barrier. Once the feeling of difficulty is attributed to a language barrier, the informative value of preference fluency as a general meta-cognitive cue will be discounted (Bornstein and D'Agostino, 1994; Novemsky et al., 2007; Reber et al., 2004; Van den Bergh & Vrana, 1998). Thus, the negative effect of a language barrier disappears and individuals reported similar level of choice deferral and anticipated satisfaction in the attribution condition (vs. no attribution condition). However, in the attribution condition, participants who were exposed to the high language barrier menu exhibited more liking of the menu than their counterparts in the low language barrier condition. Such a finding suggests that the attribution to a language barrier increased perceived authenticity of the menu, thus leading to more liking of the menu. In general, these results are consistent with prior research which indicates that the fluency effect is minimized when participants are induced to attribute the feelings of difficulty to a different source rather than the perception that the task at hand is difficult (Novemsky et al., 2007) - that is, a language barrier rather than the decision-making process in the current study. Next, we will discuss the findings and implications from Study 2.

The objective of Study 2 was to demonstrate the moderating effect of power on a language barrier and the choice of dish. Moreover, we examined the impact of the timing of power induction - *before* or *after* information processing - on consumers' decision-making processes. The results support the hypothesis that the timing of the power induction and the language barrier jointly influence consumers choices and evaluations. This is consistent with Briñol et al.'s (2007) argument that the effect of power is a function of the timing of when power is induced. More specifically, the results indicate that when power was primed *before* menu processing, elevated power increased individuals' reliance on experiential information - the feeling of difficulty while decision-making. Consequently, participants were more likely to defer their choices and reported less liking of the menu. These findings confirmed previous research

suggesting that power enhances an individual's reliance on experiential information (Guinote, 2007d; Guinote, 2010; Thompson & Ince, 2013; Weick & Guinote, 2008; Guinote, 2010).

However, the participants' anticipated satisfaction was not different across power conditions (high vs. low). We believe such a finding can be supported by the connection between power and confidence (Fast et al., 2009). Powerful individuals tend to feel more confident about their choices, which results in higher levels of anticipated satisfaction of the dish they selected, despite their negative feelings of the decision-making process.

Conversely, when power was primed *after* menu processing, increased power attenuated the negative effect of the language barrier. Participants in the powerful condition were less likely to defer their choice, and they reported higher levels of anticipated satisfaction as compared to the participants in the powerless condition. Such a finding is in line with Keltner's (2003) behavioral approach/inhibition theory of power, which suggests that power increases optimism (Anderson & Galinsky, 2006), confidence (Briñol et al., 2007), and illusory control (Fast et al., 2009).

Unfortunately, power exhibited no influence on moderating the negative effect of the language barrier on menu liking in the *after* condition. According to the power literature, powerful individuals are more likely to act on their own wills (Keltner et al., 2003) and more likely to express their genuine attitudes and opinions (Anderson & Berdahl, 2002). Choosing a dish from a hard to understand menu is difficult because it requires a cognitively complex process (Amir & Ariely, 2007), which results in increased negative emotions (Schwartz, 2000). As such, it is reasonable that participants showed less liking for the menu to express their negative feelings caused by language barrier.

After establishing the moderating effect of the timing of the power induction, we conducted Study 3 to investigate the moderating effect of choice on a language barrier and decision-making. Building upon the relationship between power and choice, we hypothesized that

choice will have similar effect as power on a language barrier by providing a common psychological consequence - perceived control.

When participants were asked to choose the preferred seating area prior to menu processing (vs. no choice condition), having a choice (vs. no choice) elevated perceived control (Averill, 1973; Chan et al., 1986; Lefcourt, 1973) and individuals' reliance on meta-cognitive cues (Thompson & Icne, 2013). As such, participants were more likely to be influenced by the language barrier, which in turn resulted in higher levels of choice deferral and lower levels of anticipated satisfaction of the dish. The insignificant results of a language barrier and choice on menu liking are possibly due to the fact the no-choice condition in Study 3 does not equal to the powerless condition in Study 2. The feeling of being powerless reduces individuals' reliance on meta-cognitive cues, however; the no-choice condition in Study 3 has no such effect on preference fluency. Moreover, we observed unexpected significant findings that a choice increases menu liking and anticipated satisfaction in the low language barrier condition. Such a finding confirms the notion that “more choice is better” (Brehm, 1966; deCharms, 1968; Deci, 1975; Heider, 1958; Scheibehenne et al., 2010), which leads to liking the menu more and higher anticipated satisfaction.

Moreover, when the choice task took place *after* menu processing, the effect of a language barrier was attenuated, and participants were less likely to defer their choices when they were asked to choose the seating area first (vs. no-choice condition). Participants in both language barrier conditions reported similar level of attitudes toward the menu and anticipated satisfaction of the dishes. We believe this finding is due to the contrast effect of preference fluency (Shen et al., 2010). Choice increases perceived control, which is attenuated by preference disfluency caused by the contrast effect. Consequently, individuals exhibited similar levels of menu liking and anticipated satisfaction in both choice and no-choice conditions.

Theoretical Implications

Theoretically, the current study provides contributions to the literature in each of the four topic areas: language barriers, preference fluency, power, and choice. First of all, this study considers the moderating effect of power on language barriers. Thompson and Ince (2013) bring two streams of research, power and processing fluency together via the consideration of experiential information. The results of the current study lend support to Thompson and Ince's (2013) finding that power increases consumers' reliance on their subjective experiences. Individuals feeling powerful will be more likely to be influenced by processing fluency, as compared to their more powerless counterparts. Further, the present study extends Thompson and Ince's work (2013) by considering the timing of power induction (Briñol et al., 2007): *before* or *after* menu processing. Our results suggest that the moderating effect of power varies depending upon when power is induced. While elevating power prior to information processing increases people's reliance on fluency, priming power after information processing actually minimizes the fluency effect.

Moreover, to the best of our knowledge, this is the first study that connects two important constructs in consumer behavior: choice and preference fluency. The findings of the present research suggest that choice has a similar effect as does power on preference fluency, thus adding credence to previous work showing that choice and power are substitutable (Inesi et al., 2011). Both choice and power increase perceived control (e.g., Averill, 1973; Chan et al., 1986; Emerson, 1962; Fast et al., 2009; Keltner et al., 2003). Elevated perceived control signals that the environment is safe, which increases individuals' reliance on meta-cognitive cues (e.g., Guinote, 2010) during decision-making.

The current study also contributes to research on choice and preference fluency by considering the sequential effect of having two choices. As mentioned previously, Shen et al.

(2010) examined the contrast and assimilation effects of processing fluency. In their study, participants were presented with two different products, as well as, associated product information. The present study extends their work by investigating the contrast effect of preference fluency - when two choices were given in a subsequent manner. Our results suggest that when participants were presented with two unrelated choices ("selecting a seating area" and "selecting a dish"), the high preference fluency in performing one choice task might have negatively influenced the preference fluency in a different task, thus leading to an unfavorable attitude towards the menu.

Additionally, the current study contributes to the literature of preference fluency by identifying language barriers as a source of low preference fluency. Traditionally, the effect of preference fluency has been demonstrated by using manipulations adapted from the processing literature (e.g., font manipulation from Novemsky et al.'s study, 2007). They are mainly limited to visual clarity manipulation (perceptual fluency). However, there are some other manipulation techniques such as semantic priming (conceptual fluency) and phonological priming (linguistic fluency) from the fluency literature (Alter & Oppenheimer, 2009). In our study, the manipulation of a language barrier is similar to lexical priming. Lexical fluency is often manipulated by replacing simple words with complex alternatives (Oppenheimer, 2006). Oppenheimer (2006) suggests that texts that contain words that were more obscure and less familiar were hard to process. Such an examination of linguistic fluency would further extend the preference fluency area, by introducing additional manipulation techniques from the literature in processing fluency.

Finally, this study makes a contribution to the hospitality literature on menu psychology. While most studies in menu psychology focus on item positioning and price presentation (e.g., Naipaul & Parsa, 2001; Yang et al., 2009; Wansink et al., 2001), the current study challenges the basic assumption that consumers have the ability to understand menu information before

constructing their preferences. We argue that, in the context of ethnic restaurants, the aforementioned persuasive cues (e.g., item position) might lose or strengthen their effectiveness due to language barriers.

Managerial Implications

This study has several important implications for hospitality practitioners. The ethnic food market is increasing at a rate of over 7% annually, due to heavy demand for ethnic restaurants (Bell et al., 2011). Considering the huge market potential for ethnic dining, it is important for hospitality practitioners to understand the factors driving customer choices and satisfaction. Prior researchers have examined factors such as individuals' motivation to visit an ethnic restaurant (e.g., Tian, 2001), the design of servicescapes (e.g., Elliot, Cherian, & Casakin, 2011), and atmosphere (e.g., Ha & Jang, 2010). However, an important factor that has been largely ignored is the language barrier. While using language from the original country (e.g., Korean) might contribute to perceived authenticity of the servicescape, it could significantly reduce preference fluency, and further the results in more negative consequences. Due to language barriers, we suggest that restaurant managers should not simply assume consumers would be able to understand all the information required for decision-making. Instead, managers should consider informing customers that they might experience some feelings of difficulty during menu processing, because of the language barrier, and encourage customers to seek information from the servers. This would discount the negative effect of low preference fluency and lead to more positive evaluations of the dining experience.

Moreover, in the current study, we investigate the effect of language barriers, power, and the timing of inducing power on individuals' preference fluency, in the context of ethnic dining. For practitioners, power can be manipulated via servicescape design (e.g., ceiling height).

Meyers-Levy and Zhu (2007), for instance, showed that a high versus low ceiling height prompts individuals to employ abstract versus concrete thinking, thus influencing people's sense of power (Smith & Trope, 2006). Additionally, research in social psychology has demonstrated that environmental cues, even subtly presented, can have powerful effects on behaviors (Bargh, Chen, & Burrows, 1996; Bargh et al., 2001). For example, people primed with the elderly walked more slowly (Bargh et al., 1996) and displayed poorer memory (Dijksterhuis, Bargh, & Miedema, 2000; Fitzsimons, Chartrand, & Fitzsimons, 2008). Therefore, restaurants could show TV commercials or music videos of people feeling powerless in the waiting area to prime feelings of low power in an effort to enhance preference fluency. Rucker et al. (2011a, study 5) used advertisements as a power priming technique. They included a sentence, "Think about a time when you had power," in the advertisement and found that such a manipulation successfully elevated power, similar to other cognitive priming techniques. Additionally, restaurant managers might want to emphasize a guest's VIP status after menu processing, and hence induce feelings of power, which would attenuate the negative influence of low preference fluency. Furthermore, practitioners could consider the restaurant type as well. For instance, most frequent patrons of fine dining restaurants are likely to have a high sense of power due to their relatively high social status. It would be difficult to prime feelings of powerlessness (as opposed to prime feelings of being powerful) to that group of customers. Therefore, managers could consider the timing of power induction, that is, elevating power after the customer reads the menu.

Finally, the current study demonstrates the importance how given customers given a choice attenuates the negative effect of a language barrier. Service companies rarely give their customers choices in their service experiences (Cranage, 2004). Practitioners could consider giving customers some choices such as selecting the ingredients for the dishes (e.g., chicken, beef, or tofu) during the service delivery process. Those choices can be as trivial, incidental, or illusory as selecting a seating area. Although trivial, they still could influence personal control,

which further moderates the effect of preference fluency. However, it is worth noting that practitioners need to pay attention to when the choices are given, for instance, before or after menu processing. While choice could discount the negative effect of a language barrier if it is given after menu processing, it actually increases the feeling of difficulty while customers' decision-making processes in the before conditions, which results in less desirable consequences.

Limitations and Future Research Directions

As in all research, there are several limitations that need to be acknowledged regarding the present study. First of all, the current study employs hypothetical scenarios rather than actual consumption. While we believe it is appropriate to use scenarios to test basic psychological effects, future research should conduct a field study to examine the language barrier effect in a real restaurant context.

In addition, we did not consider situations where the individual was dining with others. For the effect of a language barrier, when individuals are dining out alone, we would expect them to be influenced by low preference fluency, which leads to suboptimal choices as proposed in the current research. However, when individuals are dining in a group, the level of their friends' expertise (e.g., higher language proficiency or familiarity with the culture) might directly influence their behaviors. If the individual's friends have high expertise, the focal customer might not be motivated to process the menu because he or she could easily defer the choice to his or her friends or simply follow his or her friends' choices. As a result, they will experience less feelings of difficulty, which would lead to higher satisfaction with the dining experience.

On the other hand, if the entire group is experiencing a language barrier, the effect of fluency might be discounted spontaneously. As shown by Novemsky et al. (2007), once individuals notice that others have difficulty generating reasons for the decisions; the effect of

preference fluency is attenuated or even eliminated. In their study, they manipulate fluency by asking participants to generate 2 or 10 reasons for their choice. To induce participants to attribute the difficulty to the reasons task, they inform them about how many reasons others could generate (2.4 vs. 9.6 reasons). When participants learned that others could generate 9.6 reasons on average, which suggests that the reasons generation task is relatively easy, they tend to interpret their experienced difficulty as a reflection of preference fluency. It results in higher rates of choice deferral and choice compromise. Conversely, when they knew that others could only generate 2.4 reasons, they tend to believe that the reasons generation task is difficult, and also, it is common for everybody. Such an attribution to the reason generation task discounted the preference fluency effect. Similarly, when consumers are dining out as a group, they might notice that others are experiencing the same language barrier. As a result, they might be more likely to attribute the feelings of difficulty to the language barrier rather than choice, which could largely attenuate the effect of preference fluency.

Moreover, the effect of power on preference fluency might be influenced by the composition of the dining party. According to Rucker and colleagues (2012), powerful people (vs. powerless people) tend to have an agentic orientation (vs. communal orientation). That is, powerful people are less dependent on others because they feel as though they have the freedom and ability to act on their own wills, and can pursue the interests and goals that they value. On the other hand, powerless people are often dependent on others for valuable resources, which forces them to attend to and incorporate others' into consideration (a communal orientation).

When the group has an established power structure (e.g. Boss and employees, advisors and students), priming power might intensify the different psychological states between people higher in the hierarchy (e.g., advisors) versus people being lower in the hierarchy (e.g., students). This is because power validates individuals' existing views of themselves (Briñol et al., 2007). As

such, we would expect the powerful people to experience more disfluency and be less satisfied, because they tend to rely on their experiential information as compared to powerless people.

When the group does not have an established power structure (e.g. a group of first year PhD students are dining out), elevated power will make people focus more on themselves, whereas priming powerlessness will enhance their sensitivity to the other people in the group (Rucker et al., 2012). As a consequence, individuals in the low power condition might be more likely to experience negative feelings, such as embarrassment, because they could not perform a mundane task (food ordering). Their satisfaction towards the dish will be relatively low. By contrast, individuals in the high power condition will be less likely to experience such a negative feeling, because they only focus on themselves and their own goals. Future studies could empirically investigate the effect of a language barrier and power in the context of group dining.

Second, the current study mainly focuses on the menu of an ethnic restaurant, and does not consider the impact of other elements of servicescapes, such as the physical setting, atmospherics, and even the service providers, on consumers' perceptions and attitudes. Prior studies show that consumers value authentic environmental dining factors that reflect the culture of a particular country or region (Jang et al., 2012). Thus, fluency experience caused by a language barrier may lose its potency because of the enhanced cultural experience. Future research should examine the moderating effect of atmospherics, in the context of ethnic dining.

Third, the present research examined two moderators - power and choice - on the effect of preference fluency. Power and choice both increase perceived control of the environment, which leads to greater reliance on individuals' subjective feelings. In addition to power and choice, other variables, such as status, that provide the basic human need of perceived control would have similar moderating effect on preference fluency. Status and power are the most prominent and fundamental hierarchical dimensions in the social sciences (Blau, 1964; Fiske, 2010; Kemper, 2006; Magee & Galinsky, 2008; Weber, 1964). Status can be defined as the

prestige, respect, and esteem that a party has in the eyes of others (Anderson & Kilduff, 2009; Blader & Chen, 2011; Fiske, 2010; Fiske & Berdahl, 2007). Power and status can be casually related and mutually reinforcing (Magee & Galinsky, 2008). Therefore, we would expect status to have the similar moderating effect as power. Future research should examine the effect of status on preference fluency, and compare the similarities and differences among power, choice, and status.

Fourth, as mentioned previously, Shen et al. (2010) suggest the assimilation and contrast effects of processing fluency. Our research is mainly focusing on the contrast effect because the two choices given to the participants were unrelated. Two experiences are likely to be represented in memory independently of one another if the choices are not related (Shen et al., 2010). Future research could consider the assimilation effect, and provide participants with a choice that is related to the task of selecting the dish (e.g., “which menu would you like to look at today - the one with the original names of the dishes or the one written in English?”). The assimilation effect of preference fluency might positively influence individuals' reactions toward the dish selection task.

Finally, our research focuses on the impact of a language barrier on preference fluency in the process of decision-making. Other consequences of a language barrier, such as self-regulation, have not been examined. Several recent studies have shown that when making choices, people draw on a pool of executive resources (Bruyneel et al., 2006; Levav et al., 2010; Pocheptsova et al., 2009; Vohs et al., 2008), which can be temporarily depleted, leaving people less able to resist temptations (Baumeister et al., 1998; Muraven et al., 1998; Wang et al., 2010). In the context of ethnic dining, understanding a menu with a high language barrier (vs. a low language barrier) requires the exercise of substantial draws on the pool of resources that are required for self-regulation. Therefore, we would expect people in the high language barrier

condition to be less able to exert self-control, and to be more likely to choose a vice (e.g., a greasy burger rather than a healthy salad), than the ones in the low language barrier condition.

Appendix A

Instrument of the Study

Low language barrier



A menu card with a decorative red and white floral border. The title 'Chef's Special' is centered at the top. Below it, seven items are listed in a two-column format: item name on the left, price on the right, and a short description below the item name. The items are Dumpling Soup, Spicy Pork, Seafood Tofu Soup, Beef Barbecue, Seafood Pancake, Beef Stew, and Korean Rice Dish.

Chef's Special	
Dumpling Soup	\$9.99
<i>Dumpling soup with rice cakes, beef, egg and green onions.</i>	
Spicy Pork	\$10.99
<i>Grilled pork marinated with spicy sauce.</i>	
Seafood Tofu Soup	\$9.99
<i>Soft tofu stew with squid, shrimp, mussels, and vegetables.</i>	
Beef Barbecue	\$11.99
<i>Grilled beef marinated with BBQ sauce.</i>	
Seafood Pancake	\$9.99
<i>Korean pancake with squid, shrimp, mussels, and green onions.</i>	
Beef Stew	\$10.99
<i>Soybean paste stew with beef, tofu, mushrooms, and hot peppers.</i>	
Korean Rice Dish	\$10.99
<i>Rice topped with beef and mixed vegetables.</i>	

High language barrier



A menu card with a decorative red and white floral border. The title 'Chef's Special' is centered at the top. Below it, seven items are listed in a two-column format: item name on the left, price on the right, and a short description below the item name. The items are Manduguk, Jeyookbokum, Sundubu Jjigae, Bulgogi, Haemulpajeon, Sogogi Denjang Jigae, and Bibimbap.

Chef's Special	
Manduguk	\$9.99
<i>Dumpling soup with rice cakes, beef, egg and green onions.</i>	
Jeyookbokum	\$10.99
<i>Grilled pork marinated with spicy sauce.</i>	
Sundubu Jjigae	\$9.99
<i>Soft tofu stew with squid, shrimp, mussels, and vegetables.</i>	
Bulgogi	\$11.99
<i>Grilled beef marinated with BBQ sauce.</i>	
Haemulpajeon	\$9.99
<i>Korean pancake with squid, shrimp, mussels, and green onions.</i>	
Sogogi Denjang Jigae	\$10.99
<i>Soybean paste stew with beef, tofu, mushrooms, and hot peppers.</i>	
Bibimbap	\$10.99
<i>Rice topped with beef and mixed vegetables.</i>	

What's your attitude toward the menu?

Negative								Positive
Bad								Good
Unfavorable								Favorable

Please indicate your anticipated satisfaction with your choice of dish.

1 = not at all, 7 = extremely

How much do you think you would like and enjoy the dish?							
How satisfied do you think you would be with the dish?							
How confident do you think you would like the dish?							
How good do you think you would feel about the dish?							

Please indicate whether you agree or disagree with each of the following statements.

1 = Strongly disagree, 7 = Strongly agree

This restaurant makes me feel connected to Korean culture.							
The appeal of the menu matches my impression of Korean culture.							
This restaurant seems to be very Korean to me.							
This is an authentic Korean restaurant.							

What's your attitude toward the restaurant?

Negative								Positive
Bad								Good
Unfavorable								Favorable

For each of the following statements, please indicate the degree to which you agree or disagree.

1 = never true, 7 = always true

I am interested in learning more about people who live in other countries.							
I like to learn about other ways of life.							
I enjoy being with people from other countries to learn about their unique views and approaches.							
I like to try restaurants that offer food that is different from that in my own culture.							
I enjoy exchanging ideas with people from other cultures or countries.							
I like to observe people of other cultures, to see what I can learn from them.							
I find people from other cultures stimulating.							
When travelling, I like to immerse myself in the culture of the people I am visiting.							

When it comes to trying new things, I am very open.	<input type="checkbox"/>						
I enjoy trying foreign food.	<input type="checkbox"/>						
Coming into contact with people of other cultures has greatly benefited me.	<input type="checkbox"/>						

Please place a check mark next to the items that best describe you.

Annual Household Income

<input type="checkbox"/>	Less than \$20,000
<input type="checkbox"/>	\$20,000 to \$39,999
<input type="checkbox"/>	\$40,000 to \$59,999
<input type="checkbox"/>	\$60,000 to \$79,999
<input type="checkbox"/>	\$80,000 to \$99,999
<input type="checkbox"/>	\$100,000 or more

Ethnicity

<input type="checkbox"/>	Caucasian- Non-Hispanic
<input type="checkbox"/>	African American
<input type="checkbox"/>	Hispanic
<input type="checkbox"/>	Asian
<input type="checkbox"/>	American Indian, Alaskan, Hawaiian, or Pacific Islander
<input type="checkbox"/>	Other

Educational Level

<input type="checkbox"/>	High school or less
<input type="checkbox"/>	Some college
<input type="checkbox"/>	College
<input type="checkbox"/>	Graduate school

Gender

<input type="checkbox"/>	Male
<input type="checkbox"/>	Female
<input type="checkbox"/>	Transgendered
<input type="checkbox"/>	Other

How familiar are you with dining at Korean restaurants in the US?

1 = Not at all

7 = Very much

1	2	3	4	5	6	7
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How often do you dine in at Korean restaurants in the US?

1 = Not at all

7 = Very often

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Please indicate your level of Korean language proficiency.

1 = Not at all

7 = Native or bilingual
proficiency

1	2	3	4	5	6	7
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Thank you for participating!



Appendix C

Manipulations

Power Manipulation I

Powerful:

Please recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to get something they wanted, or were in a position to evaluate those individuals. Please describe this situation in which you had power – what happened, how you felt, etc.

Powerless:

Please recall a particular incident in which someone else had power over you. By power, we mean a situation in which you controlled the ability of another person or persons to get something they wanted, or were in a position to evaluate those individuals. Please describe this situation in which you had power – what happened, how you felt, etc.

Power Manipulation II

Powerful:

Please use the following words to make a grammatically correct sentence.

- 1. authority, controls, letter*
- 2. captain, depart, command*

3. *executive, influenced, plan*

4. *dominates, position, privileged*

Powerless:

Please use the following words to make a grammatically correct sentence.

1. *servant, submit, letter*

2. *complied, janitor, depart*

3. *obey, passive, plan*

4. *subordinate, yield, position*

Choice Manipulation

In the *before* condition:

A new Korean restaurant recently opened in town and you decided to try it out. As you enter the restaurant, you notice that the decorations have an overall Korean theme and there are several Korean lanterns that give it an authentic Asian feel. The hostess greets you and asks if you would like to sit by the windows to see the view, or if you would prefer to sit in the back, which is more quiet and private.

Please write down your choice of the seating area:

(Next page) The hostess seats you right away and hands you a menu.

In the *after* condition:

A new Korean restaurant recently opened in town and you decided to try it out. As you enter the restaurant, you notice that the decorations have an overall Korean theme and there are

several Korean lanterns that give it an authentic Asian feel. The restaurant was full at that moment, so the hostess greeted you and handed you a menu to read while you were waiting.

(Insert the menu here)

(Next page) Later on, a few tables are open and cleaned. The hostess comes over and asks if you would like to sit near the windows to see the view, or if you would prefer to sit in the back, which is more quiet and private.

Please write down your choice of the seating area:

(Next page) The hostess sits you right away and gives you some time to make a decision on the food. Please read the menu again and select a dish based on your preference.

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Lu Zhang was born and raised in Xi'an, China. She received her undergraduate degree from Xiamen University in China, with a major in tourism and hospitality management. After graduating from college, Lu came to the United States and earned her Master degree in Hospitality Management at the Pennsylvania State University and completed her Master thesis on search engine branding. In those two years, she was inspired by Dr. Mattila and other incredible faculty members in the hospitality program and discovered her passion for research and teaching. Therefore, she decided to continue her journey at the Pennsylvania State University. Lu received her Ph.D. from Penn State with a major in Hospitality Management and a minor in Statistics. Besides her educational interests, Lu has been a dance teacher at the Happy Valley Chinese School for two years and specialized in traditional Chinese dance.

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