

THE EFFECTS OF CULTURAL ORIENTATION ON
PERCEPTIONS OF POWER THREAT

BY

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DISSERTATION

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ABSTRACT

Because culture shapes what power means to us, cultural orientation should influence what we perceive as a power threat. Thus, the same interactions between consumers and service providers in the marketplace may implicate power differently for different consumers. Across six studies, consumers' cultural orientations influenced interpretation of and responses to the negative behavior of service personnel. These interpretations and reactions also depended on whether the service person held a high service rank (e.g., hotel vice-president) versus a low rank (e.g., hotel receptionist). Consistently, consumers who believe that power was meant for enhancing personal status (i.e., the Vertical Individualists) interpreted rude service by a receptionist (versus vice-president) as a greater threat to their own sense of power, responded with a greater sense of indignation, and were more likely to seek high status products to compensate for this power loss. The responses of consumers with other cultural orientations revealed distinct power associations that did not reflect personal power threat. Together, these findings reinforce the key influence of culture on consumer responses in situations that implicate power.

To my wife, Jenny

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CHAPTER 1

INTRODUCTION

At the front desk of a hotel, two customers encounter a receptionist who is behaving rudely. The first customer is furious because he feels disrespected. However, the second customer does not feel the same way. Instead, he comments that the receptionist may be having a bad day, and the poor service should not be taken personally.

It is not uncommon for people to encounter negative behaviors during their daily service interactions. Why did the two customers in the vignette respond so differently? Are these responses driven by differences in cultural values related to status and power? These questions are addressed in the current research by examining how individuals' cultural orientation shapes one's interpretation of and reactions to situations that implicate consumers' sense of power.

Culture not only affects how we interpret our social surroundings (Triandis, 1995), but also shapes what power means to us (Torelli & Shavitt, 2010). Hence, our cultural orientation should affect how we interpret social situations. For example, everyday interactions in the marketplace may implicate power relationships between consumers and service providers. Because receiving services implies that a provider is subservient to the needs of the customer, customers typically expect to be accorded respect and good treatment. Hence, a service provider's behavior may be perceived to provide clues to the customer's power and status, particularly when the treatment is not positive and respectful. As such, the first customer in the vignette might have reacted

strongly because he felt that his power and status were undermined by a low-ranking receptionist's behavior. In contrast, the second customer might have a different view about power, and therefore may not have interpreted negative behaviors as a power threat.

To examine the influence of culture on interpretation of social situations related to power, I draw upon a relatively new distinction in the study of culture between Horizontal (focusing on equality) and Vertical (focusing on hierarchy) cultural orientations (Triandis, 1995; Triandis & Gelfand, 1998). Research has established that people who are high in Vertical Individualism (VI) tend to associate power with personal status and social dominance (Shavitt, Torelli, & Riemer, 2011; Torelli & Shavitt, 2010). Hence, high VI individuals may be likely to interpret other's negative behavior as a threat to their sense of status and power. In contrast, people who endorse Horizontal Collectivism (HC) associate power with benevolence and helpful behavior, not personal status (Shavitt, et al., 2011; Torelli & Shavitt, 2010). Hence, these individuals may not interpret other's negative behaviors as a threat because their culturally nurtured views about power are not related to personal status.

Another implication of these differences in power concepts concerns how culture influences one's motivation to restore power after being mistreated by others. Because feeling powerless is an aversive state (Rucker & Galinsky, 2008), research shows that people are motivated to restore their power when they experience a power threat (Cutright, Wu, Banfield, Kay, & Fitzsimons, 2011; Kim & McGill, 2011). I argued that because high VI individuals are especially likely to experience mistreatment as a power threat, this should elicit compensatory reactions, such as an increased desire for status-

enhancing products (Rucker & Galinsky, 2008). In contrast, such responses should not be observed among others, such as high HC individuals, because they do not experience others' negative behavior as a personal threat.

The current findings contribute to the study of culture by demonstrating how culture influences the likelihood to interpret negative behaviors as a power threat. Previous literature has yet to discuss how cultural orientation may influence interpretation of others' social behaviors. Specifically, by using rude service treatment as an exemplar of negative behaviors, this research addresses how cultural factors can lead to distinct reactions to rude services because such service failures implicate customers' sense of power to different degrees. At the substantive level, by suggesting that dissatisfaction with rude service is related to perceptions of power threat, this research offers service managers a new approach to understanding service expectations, and suggests new strategies for recovering from such service failures. In the following sections, I will first review the literature on culture and how it shapes our definition of power, before describing a series of studies to test the predicted effects.

CHAPTER 2

CULTURE AND POWER

Culture has been conceptualized as a discrete network of knowledge structures shared by individuals within a social system (Chiu & Hong, 2006; Triandis, 1995). These knowledge structures are comprised of shared social beliefs, attitudes, norms, role expectations, and values that provide individuals with the necessary resources to realize their goals - both individual and collective ones. Hence, culture informs individuals about the meaning of power and provides them a template to guide the legitimate use of power (Chiu & Hong, 2006).

Power is defined as the capacity of individuals to influence others by administering punishment or withholding important resources (Keltner, Gruenfeld, & Anderson, 2003). Although power, equality, and hierarchy are basic foundations of any social structure or culture (Oyserman, 2006), existing cultural frameworks have tended to treat the content of power concepts as being similar across cultures. Foundational theoretical frameworks have examined the degree of concern with power and the acceptance of power inequalities. For instance, Hofstede (1980, 2001) defined *power distance* as the degree to which less powerful members of institutions and organizations within a culture expect and accept unequal power distribution. By classifying countries along a continuum based on a *power distance index* (PDI), Hofstede showed that Eastern societies are more accepting of inequality in power distribution than are Western societies. However, as fundamental as this variable is, research on power distance does not address the distinct meanings of power in individualistic versus collectivistic

societies. Instead, it distinguishes societies that are more egalitarian (low PDI score) from those that are more hierarchical (high PDI score)¹. At the individual-level as well (e.g., Kirkman, Chen, Farh, Chen, & Lowe, 2009; Zhang, Winterich, & Mittal, 2010), *power distance belief* is a measure of the degree which individuals accept or reject power disparity. It is not intended to capture distinct conceptualizations of power across individuals.

Power values have also been addressed within Schwartz's (1992; Schwartz & Bilsky, 1987) circumplex model of value structure, which features ten motivationally distinct values that encompass major value orientations across cultures. Schwartz and Bilsky (1987, 1990) have conceptualized the power value as a belief that is associated with social status, personal prestige, and social dominance. For example, their power value scale measures agreement with statements such as "It is important to be rich", "It is important to me to get respected", and "I want people to do as I say". This fits well with a concept of power as personal status and self-enhancement.

The focus of Schwartz's model is the identification of a universal structure of values across cultures. It is not designed to address cultural differences in meanings of power. For example, the model predicts that in most cultures, actions that endorse power values will conflict with the value of universalism, which embraces mutual tolerance and protecting the welfare of all people. Hence, this model does not accommodate the

¹ Although the PDI resembles the Horizontal – Vertical distinction, there are important conceptual and structural distinction (see Shavitt, Lalwani, Zhang, & Torelli, 2006). For example, the Horizontal – Vertical distinction describes two different forms of Individualism and Collectivism, it offers a typology that describes four distinct cultural patterns (Shavitt, et al., 2011); in contrast, the PDI is conceptualized as a unipolar variable (high versus low).

possibility that universalistic values may be linked in some cultures to concepts of power (Torelli & Shavitt, 2010). In short, neither the power distance concept nor Schwartz's circumplex model of values is designed to address how concepts of power are influenced by culture.

I propose that because culture influences one's views about power, it should also influence when and how social interactions are perceived to threaten one's power. Using rude service treatment as an exemplar of negative behavior², I predict that evaluations of and responses to rude treatment in a service context will depend on these culturally patterned perceptions of power threat. The Horizontal – Vertical cultural distinction proposed by Triandis and colleagues (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995; Triandis & Gelfand, 1998) is best suited for addressing the current issues because it has been shown to predict distinct views about power, status, and hierarchy within the broad classification of Individualism and Collectivism (Torelli & Shavitt, 2010).

² Note that in this research, negative behavior pertains to the enactment of offensive actions during social interactions, such as being treated rudely or offensively by other social actors; it does not refer to self-inflicted harm or undesirable habits such as drug consumption.

CHAPTER 3

THE HORIZONTAL–VERTICAL CULTURAL DISTINCTION

People from individualistic cultures construe the self as independent of others, and emphasize personal goals, whereas those from collectivistic cultures view the self as an interdependent entity, and give priority to group goals over personal ones (Hofstede, 1980; Markus & Kitayama, 1991; Triandis, 1995). However, there are important distinctions within the individualistic-collectivistic categories. Triandis and colleagues (1995; Triandis & Gelfand, 1998) observed that American individualism differs from Swedish individualism, and Korean collectivism differs from the collectivism of the Israeli kibbutz. To refine the Individualism – Collectivism framework, Triandis and colleagues (1995; Triandis & Gelfand, 1998) proposed a Horizontal - Vertical cultural distinction. Individuals with a vertical cultural orientation emphasize hierarchy and focus on the difference between self and others in terms of status; those with a horizontal cultural orientation value equality and thus focus less on status. Nesting the Horizontal – Vertical distinction within the Individualism – Collectivism framework results in four distinct cultural orientations, namely Horizontal Individualism (HI), Vertical Individualism (VI), Horizontal Collectivism (HC), and Vertical Collectivism (VC).

In vertical individualistic societies (VI; e.g., the U.S.), people value personal status and achievement, and seek self-enhancement by winning over others. In contrast, people in horizontal individualistic societies (HI; e.g., Sweden) value uniqueness and self-expression. They believe in equality and modesty instead of status and hierarchy (Nelson & Shavitt, 2002). In vertical collectivistic societies (VC, e.g., Korea), people

defer to higher authorities. In such cultures, people are willing to sacrifice personal goals for the sake of in-group goals. Lastly, people in horizontal, collectivistic societies (HC; e.g., Brazil, the Israeli kibbutz) emphasize nurturing and interdependent relationships with others, and are likely to rise against authoritarian aggression (Kemmelmeyer, et al., 2003). Triandis and colleagues (1995; Triandis & Gelfand, 1998) validated a 16-item scale that captures these four cultural orientations at the individual level (Appendix B).

Research has demonstrated the importance of the Horizontal - Vertical cultural distinction (Aaker, 2006; Meyers-Levy, 2006; Oyserman, 2006; Shavitt, et al., 2006). Drawing attention to the relation between cultural orientation and emphasis on hierarchy aids understanding of how interpersonal power relations are shaped by cultural factors. For example, because social dominance is accepted in VI cultures but frowned upon in HC cultures (Torelli & Shavitt, 2010), negative behaviors by individuals with high versus low social status may be perceived differently by people with different cultural orientations.

Based on the current theorizing, I propose that being offended by another person should be interpreted differently depending on culturally based power associations, as well as the social rank of the other. For example, people with a VI cultural orientation associate power with personal advancement and status, hence being disrespected by someone with low rank such as a receptionist should be interpreted as a threat to their sense of status and power, triggering a readiness to act to restore their own power. In contrast, when someone with high social rank such as a hotel vice-president is rude, the situation may pose less of a threat, and may trigger deferential reactions instead because people with high VI accept social dominance (Torelli & Shavitt, 2010). As such, it is

predicted that when a low (high) ranking service person is rude, the more vertically individualistic one is, the more (less) one experiences power threat, and the more (less) dissatisfaction and negative affect one feels.

In contrast, people with an HC orientation associate power with helpful and prosocial behaviors - powerful people are expected to behave in benevolent ways, and not take advantage of others (Torelli & Shavitt, 2010). Hence, people with an HC orientation should expect more helpful behaviors from a high-ranking (versus low-ranking) other. As such, they are more likely to interpret negative behavior by a high-ranking other as a misuse of power. This suggests that in a service setting, when a high-ranking versus low-ranking service provider gives rude service, the situation may be interpreted by consumers with an HC orientation as a more serious violation. Hence, it is predicted that when a low (high) ranking service person is rude, the more horizontally collectivistic one is, the less (more) the dissatisfaction and negative affect one feels. Further, because power is not associated with personal status, rude service will not be interpreted as a power threat by consumers who are high in HC.

A secondary focus of this research is to examine the implications for power concepts associated with a VC cultural orientation. Individuals high in VC not only defer to authority (Triandis, 1995), but also respect and obey authority figures (Fiske, 1992). If for consumers with high VC, the concept of power is related to authority, this may predict reactions in specific service contexts in which rank is strongly associated with authority, such as hospitals (Patterson & Smith, 2001). Specifically, because the notion of authority may be more salient for those with high VC in a hospital setting, it is predicted that the more vertically collectivistic one is, the more acceptable is the behavior of a rude

doctor (high authority) and the less acceptable is the behavior of a rude clinic receptionist (low authority). However, in common retail contexts such as a hotel, service persons are expected to be subservient to the needs of consumers. Hence the notion of authority is not salient in such retail contexts, and a VC orientation should not be predictive of consumers' responses. In sum, a VC orientation should only be predictive of responses to negative behavior from service providers in contexts in which a service person's rank is associated with authority. This possibility will be addressed in a later study.

Finally, self-direction, independent thought, and freedom of choice are important elements associated with an HI cultural orientation (Schwartz, 1992; Singelis, et al., 1995). As such, individuals with an HI orientation are less concerned about achieving status, and focus more on equality and seeking self-direction. In addition, displays of personal success and achievements are frowned upon (Nelson & Shavitt, 2002). Because power is not a salient concept for an HI orientation, I expect that degree of HI cultural orientation will not predict feelings of power threat in response to rude service.

CHAPTER 4

THE PRESENT STUDIES

The service context is ideal for testing the current hypotheses for several reasons. First, it is not uncommon for consumers to encounter service persons of various ranks - a hotel guest may encounter a junior staffer, such as a receptionist, or someone senior, such as the hotel vice president. Immersed in the demands of frontline service work, highly stressed service persons may often, though unintentionally, deliver rude service (Kelly & Davis, 1994). As such, the service setting offers a realistic context for the current research. Further, it may be acceptable for a senior staffer to behave assertively toward a junior one. However, because a consumer is not part of an organization's hierarchy, intuitively, a consumer's service evaluation should be independent of the service person's rank. In this research, I will demonstrate that the consumer's cultural orientation determines whether service rank plays an important role in responses to rude service.

A total of six studies were conducted to systematically test the current predictions. Studies 1 and 2 used a hotel check-in scenario to establish the basic relation between cultural orientation and how one responds to rude service. Specifically, in study 1, the rank of the rude service person was manipulated by featuring either a receptionist or hotel vice-president. In addition, to establish that responses by high VI participants were indeed related to power threat, some participants were given the chance to self-affirm by describing ways they exceeded the expectations of others before reading the rude service scenarios. Because the desire to maintain one's self-worth is a basic self-regulatory goal, fulfillment of such goals through prior self-affirmation procedures has been shown to

buffer against threatening information (Steele & Liu, 1983). As such, I expected self-affirmed (versus control) participants to report lower levels of dissatisfaction because their feelings of threat were mitigated. These effects should only be observed by high VI participants. In study 2, the rank of the service person was controlled, instead, I manipulated the participants' own social rank by asking them to assume the role of either a student (low rank) or a business executive (high rank) during their encounter with a rude hotel desk manager. By controlling the service person's rank, I showed that participants' responses were not solely based on cultural-based expectations from a high versus low rank service person, but was related to rude services. To establish that the findings generalize to a real world context, study 3 used a real situation wherein participants received rude treatment from someone described either as a visiting professor or a lab assistant during an experiment. To further show that participants were indeed experiencing power threats, study 3 employed a projective measure to assess participants' power concerns and adapted a task from existing research aimed at measuring participants' motivation to restore power when rude service was perceived as threatening. In study 4, cognitive responses were measured to examine thought patterns in response to rude services, such as the frequency of thoughts related to indignation. This is to further establish that the tendency to interpret others' negative behavior as threatening varied by one's cultural orientation. Because studies 1 to 4 employed mostly Anglo American participants, to broaden the scope of the current research, studies 5 and 6 employed a multicultural sample. In addition, study 6 used a hospital scenario featuring a medical consultant versus receptionist. The aim of the study was to tap into the effects associated with a VC orientation by featuring a scenario that relates to authority. A second purpose

of the study was to examine the effects of participants' Social Dominance Orientation (Sidanius & Pratto, 1999), which was shown to correlate with one's VI (Torelli & Shavitt, 2010). Because the SDO captures beliefs in the inequality of social groups, one's SDO may also predict responses to negative behaviors. This possibility was examined in the final study. Across studies, this research systematically examines the effects of cultural orientation on interpretation of and responses to situations implicating power, and uncovers consumers' subsequent compensatory responses.

4.1 STUDY 1

Study 1 was designed to examine whether individuals respond differently to rude treatment as a function of their cultural orientations. The study featured a hotel room check-in scenario where participants encountered a rude receptionist (low rank) or hotel vice-president (high rank). Because people with high VI are more concerned about their own power and being respected by others, particularly by those with low social rank, it is predicted that the higher the VI level, the more (less) negatively one will feel when treated rudely by someone of low (high) rank. In contrast, because a Horizontal Collectivist's concept of power is that those with high rank should be helpful and display benevolence, it is predicted that the higher the HC level, the less (more) negatively one will feel when treated rudely by someone of low (high) rank.

If the negativity experienced by high VI individuals is due to perceived power threat; procedures that buffer the threat should reduce the negative emotions of those with high VI. The desire to maintain one's self-worth is a basic self-regulatory goal (Steele, 1988), yet fulfillment of such goals through prior self-affirmation procedures can buffer

against threatening information (Steele & Liu, 1983). Hence, when high VI participants are given the chance to self-affirm before reading the rude receptionist scenario, their feelings of threat will be greatly reduced. Because high VI participants accept social dominance, they should perceive less threat in the rude vice-president condition, and thus a chance to self-affirm should not affect how they feel.

4.1.1 Methods

Two hundred and twenty-nine undergraduates (43% male) participated in the experiment in a computer lab. First, they were randomly assigned to either the self-affirmation or control condition. Those in the self-affirmation condition were told to list four ways in which they exceeded the expectations of others (Johnson & Stapel, 2007). In the control condition, participants listed four features of a tree (Lalwani & Shavitt, 2009). Next, they were randomly assigned to read the hotel scenario featuring either a rude receptionist (low rank) or a rude hotel vice-president (high rank) (see Appendix A). Next, participants reported their *Satisfaction* by responding to the item: “Please indicate how you feel about the service.” Anchors for the three items included: 1=terrible/ 7=delighted, 1=disgusted/ 7=contented, and 1=didn’t like it at all /7=liked it very much (Ueltschy, Laroche, Tamlia, & Yannopoulos, 2004). Next, they reported their *Negative Affect* by filling out the negative emotion portion of the PANAS mood scale (Watson, Clark & Tellegen, 1988). Finally, cultural orientation was measured using Triandis and Gelfand’s (1998) 16-item scale designed to measure VI, HI, HC, and VC. Responses were recorded on 7-point Likert-type scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*)

(see Appendix B). Participants were debriefed and dismissed after reporting their demographic information.

4.1.2 Results and Discussion

Across all six studies to be presented, the factor structure of the cultural orientation scale was adequate and the reliability scores were satisfactory. Table 1 presents a summary of these results. Reliability for the satisfaction ($\alpha = .86$) and the negative affect scale ($\alpha = .78$) were satisfactory. Correlation results are presented in Table 2. Correlation between satisfaction and negative affect was expected ($r = -.446, p < .01$) because those who were dissatisfied with the service should also feel negatively. As both variables yielded similar pattern of results in the current and subsequent studies, negative affect scores were reversed coded, and collapsed with satisfaction scores to form an *Affective Response Index* in all the current studies (low score denotes unfavorable response)³.

The affective response index was regressed against the four cultural orientations, service rank, affirmation condition (absent versus present), as well as the respective two-way and three-way interaction terms. Results revealed an interaction between VI, service rank, and affirmation condition ($\beta = -.538, t = -5.396, p < .001$). No effects were found for the other cultural orientations. The interactions were graphed following recommendations (Aiken & West, 1991) for the non self-affirmed (Figure 1) and self-affirmed condition (Figure 2). Each figure is accompanied by the mean scores for Satisfaction and Negative affect.

³ Standardization was required for the index as the scales for satisfaction (7-point) and negative affect (5-point) were different.

Based on Figure 1, slope analyses revealed that in the receptionist condition, the higher the VI, the less favorable the affective responses ($\beta = -.920, t = -7.446, p < .001$). But in the vice-president condition, the higher the VI, the more favorable the affective responses ($\beta = .952, t = 13.544, p < .001$). In addition, a spotlight analysis (Aiken & West, 1991) showed that high VI participants (i.e., at +1 SD of VI) showed less favorable affective responses toward a rude receptionist than a rude vice-president ($\beta = 2.136, t = 10.866, p < .001$).

When given the opportunity to self-affirm (see Figure 2), the slope for the receptionist condition was no longer significant ($\beta = .054, t = .466, p = .645$). Further, a spotlight analysis revealed that the favorability level of the affective responses reported by high VI participants did not differ across the two service ranks ($\beta = .159, t = 1.059, p = .296$). This implied that the self-affirmation procedure buffered high VI participants against power threat in the receptionist condition, hence they did not respond as unfavorably as high VI participants who were not given the chance to self-affirm.

The current results show that cultural orientation moderates one's reaction to service failures (i.e., rude services). Consumers with high VI are more likely to perceive such service failures as a power threat. An opportunity to self-affirm buffered these consumers against this perceived threat, demonstrating that high VI individuals perceived mistreatment by a low-rank other as implicating their power. As expected, this self-affirmation opportunity did not affect individuals in other conditions, which is consistent with the assumption that those conditions were not perceived as threatening. These results provided preliminary evidence that the perception of negative behavior as a power threat is dependent on one's cultural orientation (specifically VI) and the rank of the

person who displays negative behavior. No effects were observed for the other cultural orientations. Table 3 summarizes the effects for the six studies to be presented.

4.2 STUDY 2

Given that high (versus low) VI participants focused more on status and power, they might not have expected service from a hotel vice-president at the front desk. Consequently, these high VI participants might have been more tolerant with the rude vice-president (hence more favorable affective responses) than low VI participants. To rule out the effects of service rank expectations, service rank was held constant in study 2, and participants' social rank was manipulated. Specifically, participants adopted either the role of a student (low rank) versus a senior business executive (high rank) while checking-in to a hotel. The rude hotel staffer featured in the scenario was a desk manager (middle rank)⁴. It was predicted that the higher the VI, the more (less) negatively one will feel toward the desk manager when they adopted the executive (student) role.

4.2.1 Methods

Fifty students (52% male) participated in the study in exchange for course credit. Participants were randomly assigned to read the hotel scenario where they either imagined being a student traveling for a conference (low rank) or a senior business

⁴ A pretest validated the social rank manipulation. Fifty-four students rated on a scale from 1 (very low) to 10 (very high) their perception of the social rank of senior business executives, hotel desk managers, and university students. Results revealed significant rank differences ($F(2,53) = 51.000, p < .05$). Senior business executives were rated as having higher rank ($M = 8.89, SD = 1.23$) than desk managers ($M = 6.22, SD = 1.11; F(1,34) = 11.127, p < .05$), and university students were ranked lower ($M = 4.89, SD = 1.28; F(1,34) = 46.408, p < .05$) than desk manager.

executive on a business trip (high rank). The rude service person featured was a desk manager, and the scenario was similar to the one in study 1 (see Appendix C). Next, participants filled out the satisfaction ($\alpha = .84$) and negative affect scales ($\alpha = .75$) used in study 1, followed by the cultural orientation scale. No self-affirmation condition was included.

4.2.2 Results and Discussion

Regression results showed that social rank and VI interacted to influence affective responses to the scenario ($\beta = -.976$, $t = -13.874$, $p < .001$). No other cultural orientations interacted with rank to influence the affective response index. The interaction for VI and rank is shown in Figure 3, and the intercorrelations in Table 4.

Following recommendations (Aiken & West, 1991), slope analyses were run for the student rank condition ($\beta = .485$, $t = 10.127$, $p < .001$) and executive rank condition ($\beta = -.444$, $t = -12.519$, $p < .001$); both were significant. As Figure 3 shows, when high VI participants assumed the executive (versus student) role, they reported less favorable affective responses. A spotlight analysis confirmed that participants high in VI felt less favorable toward the desk manager in the executive role than in the student role ($\beta = -2.924$, $t = -22.431$, $p < .001$). No effects were observed for the other cultural orientations (see Table 2). These results mirrored those of study 1; participants with high VI reported less favorable affective responses when treated rudely by a low rank service person (study 1), or when their social rank was higher than the service person (study 2). Next, study 3 was designed to provide direct evidence for the power threat experienced by high

VI participants in the scenarios, as well as their implicit motivation to restore power. In addition, study 3 tested the robustness of the current results via a non-scenario approach.

4.3 STUDY 3

Study 3 was designed to demonstrate that the existing results reflected an implicit motivation to restore one's power. The assumption is that when people experience power threat after being treated rudely, not only will they be concerned for their power, but they will also be motivated to restore it. Projective techniques were employed to measure implicit power concerns after being treated rudely (Woike, 1995; Woike, Mcleod, & Goggin, 2003).

According to the compensatory hypothesis (Rucker & Galinsky, 2008), feeling powerless is aversive, and people experiencing powerlessness compensate with an increased desire for status-enhancing products. Therefore, if participants experience power threat as a consequence of being treated rudely, they should also display a greater desire to acquire status-related products. These possibilities were examined in a real experimental situation in which a confederate posed as an experimenter and treated the participants in a negative manner.

4.3.1 Concern for Power and Compensatory Responses to Feelings of Threat

Power concerns were measured using the Multi-motive Grid (MMG, Sokolowski, Schmalt, Langens, & Puca, 2000), which consists of line drawings depicting people in different situations. Each picture is accompanied with multiple statements including some related to *fear of losing power* or *hope of gaining power*. Respondents give a yes/no

rating of their agreement to each statement. As validated by Sokolowski et al., (2000; see also Torelli & Shavitt, 2010), those who experiences threat should report a higher frequency of “yes” responses to the power statements. Details of the MMG measure are presented in Appendix D.

To measure compensatory responses, a task was adapted from Rucker and Galinsky (2008). Respondents were first shown ten products in a random order; five products were associated with status and five were neutral⁵. Respondents reported their willingness to pay for these products on a 12-point scale, where 1 = 10% of the retail price of the item, 2 = 20% of the retail price of the item, and increasing intervals of 10% per scale point up to 12 = 120% of the retail price. Responses were collapsed within each status and neutral product category. Reliability of the scale for status products ($\alpha = .94$) and neutral products ($\alpha = .95$) was satisfactory.

4.3.2 Methods

One hundred and four undergraduates (51% males) participated in the study in a computer lab. A proctor first introduced the experimenter as either a Visiting Professor (high rank) or a Lab Assistant (low rank). The experimenter, a confederate, was blind to the hypotheses. Next, the proctor emphasized that the experimenter would assist the participants if they encountered any technical problems, after which the proctor left the

⁵ The five status products included cuff links, an executive pen, briefcase, a fur coat, and a silk tie. The five neutral products served as control stimuli, and consisted of a ballpoint pen, sofa, dryer, washer, and a minivan. In a pretest, thirty-one undergraduates (48% male) indicated the status level associated with these products on a 7-point scale ranging from 1 (low status) to 7 (high status). Results showed that the mean status score for the five status products ($M_{\text{status}} = 5.81$, $SD = .45$) was significantly ($t(29) = 48.393$, $p < .001$) higher than for neutral products ($M_{\text{neutral}} = 1.70$, $SD = .62$).

room. Participants were then asked to evaluate some advertisements on the computer. To prompt participants to seek help, an error message was programmed to appear at about the same time on all computer screens. After it appeared, the experimenter acted unconcerned and said following before leaving the room⁶:

“I can see that some of you are having problems. I don't know what is going on, and I don't care. This is not my experiment, so don't ask me anything about it. When you see the CONTINUE button, just click it, and proceed. Be patient.”

The CONTINUE button was programmed to appear on screen fifteen seconds after the error message was shown, after which participants proceeded to the MMG measure followed by the willingness-to-pay task. Next, they responded to the cultural orientation scale (Triandis & Gelfand, 1998) followed by a seemingly separate survey that probed their experience in attending experiments. All of the survey items were fillers except for one that probed satisfaction with the current experimenter on a scale ranging from 1 (very dissatisfied) to 7 (very satisfied). Participants also reported how they felt by filling out the entire PANAS scale, but only negative affect was included in the analysis. Next, they were debriefed and thanked.

4.3.3 Results

Hope of Power and Fear of Losing Power were highly correlated ($r = .669$, $p < .01$; see Table 5). Thus the two were collapsed as a *Concern for Power Index*. Regression analyses were used to analyze affective responses, concern for power, and willingness to pay for status products and neutral products. Again, results showed that service rank and

⁶ Practices were held in order for the experimenter to achieve the desired level of consistency and assertiveness when delivering this message.

VI interacted to influence affective responses toward the experimenter ($\beta = .727$, $t = 7.402$, $p < .001$). No other cultural orientations yielded significant effects (see Table 3). The interaction plots appear in Figure 4.

Slope analyses showed that the higher the VI, the less favorable the affective responses in the Lab Assistant condition ($\beta = -.518$, $t = -7.301$, $p = .001$), and the more favorable the affective responses in the Visiting Professor condition ($\beta = .359$, $t = 4.985$, $p = .002$). A spotlight analysis confirmed that high VI participants felt less favorably in the Lab Assistant condition than the Visiting Professor condition ($\beta = 2.339$, $t = 9.915$, $p < .001$). These results replicated previous studies showing in a real situation that high VI participants reacted more (less) negatively when actually mistreated by someone with low (high) rank.

Results also showed that VI and experimenter's rank interacted to influence concern for power ($\beta = -1.226$, $t = -4.226$, $p < .001$). No other cultural orientations yielded significant effects (see Table 3). Figure 5 presents the interaction chart.

Slope analyses suggested that participants high (versus low) in VI reported greater concern for power in the Visiting Professor condition ($\beta = .724$, $t = 2.963$, $p = .008$) as well as the Lab Assistant condition ($\beta = 1.829$, $t = 7.607$, $p < .001$). This supported the theorizing that people with high (versus low) VI were more sensitive about power. More importantly, spotlight analyses showed that for high VI participants, their concern for power in the Lab Assistant condition was significantly higher than in the Visiting Professor condition ($\beta = -3.918$, $t = -3.685$, $p = .002$), implying that those with high VI were more concerned about their power and feeling more threatened when mistreated by

someone with low (versus high) rank. None of the other cultural orientations interacted significantly with service rank.

Because participants high in VI experienced greater power threat in the low (versus high) rank condition, they should also display increased preferences for status-enhancing products to compensate for their powerlessness. Regression results indicated that this was indeed the case. Willingness to pay for status products was influenced by the interaction between VI and experimenter's rank (Figure 6; $\beta = -.907$, $t = -2.852$, $p = .005$)

Slope analysis showed that participants high (versus low) in VI reported higher willingness to pay for status products in the Visiting Professor condition ($\beta = .521$, $t = 2.965$, $p = .005$) and the Lab Assistant condition ($\beta = 1.220$, $t = 4.895$, $p < .001$). This was expected; high (versus low) VI individuals should display higher willingness to pay for status products, reflecting their greater interest in power and status. More importantly, spotlight analysis showed that high VI participants reported greater willingness to pay for status products in the Lab Assistant than the Visiting Professor condition ($\beta = -3.216$, $t = -2.711$, $p = .014$), signaling that high VI participants felt more threatened by the lab assistant, hence their greater desire to compensate by acquiring status products. Note that none of these effects emerged for willingness to pay for neutral products. In fact, the pattern was the opposite (see Appendix E).

4.3.4 Mediation Analysis

Mediation analyses were conducted to test whether feelings of power threat (i.e., concern for power on the MMG measure) mediated affective responses and willingness to pay for status products. Results indicated that concern for power mediated the

interactive influence of VI and Experimenter's Rank on affective responses (Sobel's Test: $z = 3.326, p < .001$). Specifically, the interaction effects of VI and Experimenter Rank on affective responses ($\beta = .216, t = 2.115, p = .041$) became non-significant ($\beta = -.069, t = -.899, p = .374$) after entering the concern for power index as a mediator ($\beta = -.189, t = -7.427, p < .001$). Concern for power also mediated willingness to pay for status products (Sobel's Test: $z = -3.586, p < .001$); the interaction effects of VI and Experimenter Rank on willingness to pay for status products ($\beta = -1.310, t = -3.581, p = .001$) became non-significant ($\beta = -.064, t = -.417, p = .679$) after entering the concern for power index as a mediator ($\beta = .827, t = 16.328, p < .001$). These results suggested that high VI individuals' experience of power threat, triggered by negative behaviors by someone with low rank, can influence their affective and compensatory responses.

4.3.5 Discussion

The current results showed that the more someone had a culturally nurtured concept of power associated with status, the more negative their affective responses to rude treatment by someone with low rank. As a result, these participants were more willing to pay for status products, reflecting their motivation to compensate for their lack of power (Rucker & Galinsky, 2008). Mediation tests confirmed that these participants' power concerns influenced their affective and compensatory responses. Given these results, it was expected that those high in VI may perceive being mistreated by someone with low social rank as a form of disrespect. To examine this process directly, the next study measured cognitive responses to analyze self-focused reactions of indignation.

4.4 STUDY 4

If high VI individuals felt disrespected by someone's negative behavior, encountering a rude person of low rank will elicit self-focused cognitions and indignant thoughts (e.g., "I deserve more respect"). In contrast, encountering a rude person of high rank may elicit power threat and may instead elicit deferential responses. This may be reflected in avoidance-related cognitions (e.g., "let's not make a big deal") and external attributions for the rude behavior (e.g., she is having a bad day").

4.4.1 Methods

Seventy-four undergraduates (55% male) participated in the study. Participants read the same rude hotel service scenario used in study 1. Next, they filled out the satisfaction scale ($\alpha = .90$) and negative affect scale ($\alpha = .77$), and were asked to list up to seven thoughts regarding how they felt about the situation (Cacioppo & Petty, 1981; Shavitt, 1990). After the thought listing task, participants filled out the cultural orientation scale (Triandis & Gelfand, 1998) and were debriefed.

4.4.2 Results

As expected, the only significant effect associated with affective responses was the interaction between VI and service rank (Table 3). Slope analyses indicated that the higher the VI, the less (more) favorably participants felt when a low-ranking (high-ranking) service person was rude (see Figure 8 for statistical details). These results mirrored those of previous studies.

Six categories of thoughts were developed for the coding plan to test hypotheses about the underlying cognitive processes. They included, (1) self-reference (thoughts related to self), (2) self-focused indignation (related to feelings of personal indignity), (3) chiding (reflecting a desire to chide the service person), (4) role-expectation (relating to expectations about a service person's appropriate behavior), (5) avoidance (reflecting desire to avoid confrontation), and (6) external attribution (thoughts that cited external reasons for rude behavior). Two coders practiced coding a list of thoughts generated from a pretest before coding the actual list independently. Thoughts could be coded into multiple categories, for example, "I feel disrespected" was coded as both self-reference and self-focused indignation. Of the three hundred and twenty-three thoughts coded, the coders achieved 70% agreement. Coders were considered to be in agreement only when they coded a thought into identical categories; all disagreements were resolved through discussion (see Table 7 for examples of listed thoughts).

The proportions of each type of thought were arcsine transformed for analysis. In order to compare the thoughts between high versus low VI participants, a median split on VI scores was performed, and the differences in the proportion of thoughts between the two rank conditions were analyzed via t-test (see Table 8, and Figure 9 and 10).

As shown in Figure 9, high VI participants generated more self-referencing thoughts and thoughts of indignity in the receptionist (versus vice-president) condition. However, they reported more avoidance thoughts and external attributions in the vice-president (versus receptionist) condition. These differences were expected. Because high VI participants perceived the negative behaviors by someone with low rank as a form disrespect, they would think about how they were personally affected (self-referenced

thoughts) and disrespected (thoughts about indignation) when mistreated by a low-ranking other. However, when the rude person had high rank, they tried to avoid the situation by generating external attributions (e.g., “the vice-president is having a bad day”), as well as avoidance thoughts (e.g., “I rather enjoy my trip”).

In contrast, low VI participants reported more avoidance thoughts (e.g., ‘let’s forget it’) and generated more external attributions (e.g., “she must be having family problem”) in the receptionist (versus vice-president) condition (see Figure 10). In the vice-president (versus receptionist) condition, they reported more thoughts relating to chiding (e.g., “I want to score her!”) and more thoughts regarding their expectations of the vice-president (e.g., “she doesn’t act like a hotel vice-president”), suggesting that they expected better service from the high-ranking service person.

4.4.3 Mediation Analysis

As expected, the interaction effect of VI and Service Rank on affective responses ($\beta = .324, t = 2.376, p = .024$) became non-significant ($\beta = .207, t = 1.065, p = .296$) after entering the proportion of self-referent thoughts as a mediator ($\beta = -.818, t = -3.412, p = .002$). This suggests that when one’s cultural orientation associates personal status with power, others’ negative behaviors will trigger thoughts about disrespect which in turn cause the person to feel unfavorably (Sobel’s Test: $z = -3.681, p < .01$)⁷.

⁷ The mediation effects of self-focused indignation on affective responses were also tested. Although the Sobel’s test effect was only marginally significant (Sobel’s Test: $z = -1.721, p = .085$), the interaction between VI and Rank on affective responses ($\beta = .324, t = 2.376, p = .024$) became non-significant ($\beta = .166, t = 1.462, p = .154$) after entering the proportion of thoughts related to self-focused indignation as a mediator ($\beta = -.752, t = -4.359, p < .001$). These results implied that thoughts about being disrespected caused high VI individuals to feel less favorably toward others’ negative behavior.

4.4.4 Discussion

Participants' thoughts in response to a rude service scenario differed as a function of their VI orientation. Specifically, those high in VI thought about how the receptionist disrespected them, whereas those low in VI thought about how the vice-president did not meet the expected standard of service. The mediation analyses gave support to the contention that when a low (versus high) rank other displays negative behavior, those with high VI responded less favorably because they interpreted the situation as a threat to their personal power. These effects were consistently observed with a VI orientation.

In the current studies, the sample consisted mainly of Anglo Americans. To test the generalizability of the current results, it is necessary to include a broad sample of cultural groups known to differ across the four cultural orientations. For example, Hispanics usually score high on the HC orientation whereas Asians usually have high VC orientation scores (Lalwani & Shavitt, 2009; Torelli & Shavitt, 2010). The inclusion of participants with different ethnic backgrounds increases the coverage of vertical and horizontal cultures, which not only increases the potential of capturing effects between rank and the other cultural orientations (and not just VI), but also allows for generalizing the current results across different cultures. Studies 5 and 6 are designed with these objectives in mind.

4.5 STUDY 5

To increase the potential of observing the effects of the other cultural orientations, a multicultural sample consisting of Anglo Americans, Hispanics, and Asians was used in

study 5. Specifically, the Hispanic and Asian cultural group were chosen because these groups were known to score higher in HC and VC than Anglo Americans, respectively (Torelli & Shavitt, 2010; Triandis & Gelfand, 1998). Another goal of this study was to address a possible alternative explanation. Specifically, it was possible that those with high VI prefer the service provided by someone with high rank irrespective of the quality of that service. To address this possibility, a control scenario was added featuring either a receptionist or hotel vice-president performing a routine check-in without any description of rude behavior. If high VI individuals preferred the service of a high-ranking person, one would expect more favorable affective responses toward the hotel vice-president than the receptionist in the control condition. Lastly, because cultural orientation was measured after participants read the rude service scenarios, there was a possibility that others' negative behavior might impact cultural orientation scores. If this was indeed the case, one would expect differences in cultural orientation scores between the two service conditions.

4.5.1 Methods

Participants were 393 people (51% male) from multiple cultural groups. Undergraduates at the University of Illinois at Urbana Champaign included 128 Anglo Americans and 100 East Asians/Asian Americans; these participants received course credits. Also, 80 Asian students from the Nanyang Technological University in Singapore

participated in the study for \$5 each⁸. Eighty-five Hispanic-American church-goers completed a paper version of the study on a voluntary basis (median age = 25; years in the U.S.A. ranged between 5 and 30)⁹.

Hispanic participants completed the study in a church; the remaining participants completed the study in a computer lab. Participants read either the rude or non-rude hotel scenario. In the rude condition, 253 participants read either the scenario about a receptionist (N=128) or a hotel vice-president (N=125) used in study 1. In the non-rude condition, 140 participants read either about a receptionist (N=70) or a hotel vice-president (N=70) (see Appendix F for non-rude scenario). Next, participants reported their satisfaction, rated their negative emotions, and completed the MMG measure and willingness to pay task. After completing the cultural orientation measure (Triandis & Gelfand, 1998), and reporting their demographic data, they were debriefed and thanked.

4.5.2 Results

As in study 3, the two MMG power variables were collapsed to form the Concern for Power Index. Reliability of the satisfaction scale ($\alpha = .90$), negative emotion scale ($\alpha = .77$), and willingness to pay scale for status products ($\alpha = .83$) and neutral products ($\alpha = .76$) was satisfactory.

⁸ Separate analyses were run for East Asians, Asian Americans, and Asian participants from Singapore. Because the pattern of results for the three Asian groups did not differ, their data were combined to increase statistical power.

⁹ Because this sample included some Hispanic participants who were not expected to be proficient in English, the study materials were translated to Spanish using standard translation-back translation procedures (Brislin, 1970).

Cultural orientation scores obtained from the two service conditions were compared via simple t-tests and 2-way ANOVAs. Results indicated that rude service did not significantly alter cultural orientation scores (see Appendix G for details). This ruled out the possibility that the rude service manipulations impacted cultural orientation scores. In addition, the range of cultural orientation scores in studies 1 to 4 were compared to those of study 5 (and study 6) using Levene's test of equality of variance. Results showed that the variances in study 5 (and study 6) were significantly greater than those in the first four studies when a multicultural sample was used (see Appendix H for details). The increase in variances increased the potential of capturing interaction effects between service rank and the cultural orientation scores.

Cultural orientation scores for each cultural group are tabulated and presented in Table 10. Ethnic-group differences in cultural orientation scores were analyzed via One-way ANOVAs; differences between groups emerged on VI scores ($F(2,308) = 10.087, p < .001$) and HC scores ($F(2,308) = 50.012, p < .001$). Specifically, Hispanics scored lower in VI ($M_{VI} = 4.187$) and higher in HC ($M_{HC} = 5.859$) than Anglo Americans ($M_{VI} = 4.813, F(1,156) = 9.180, p = .003; M_{HC} = 4.741, F(1,156) = 101.87, p < .001$) and Asians ($M_{VI} = 4.909, F(1,234) = 21.465, p < .001; M_{HC} = 4.922, F(1,234) = 72.737, p < .001$). These differences were consistent with previous research (e.g., Torelli & Shavitt, 2010).

Differences in VI and HC scores between the Hispanic group and the other two cultural groups suggested possible group-level effects. Because individual cultural orientation scores were nested within group-level cultural orientation scores, it was necessary to examine how group-level effects may contribute to the effects at the individual level. A cross-level analysis using hierarchical linear modeling (Raudenbush

& Bryk, 2002) was required to test whether group-level mean cultural orientation scores contributed to the variance explained by individual-level cultural orientation scores. However, the ICC (intraclass correlation) indices for HI and VC were poor, indicating that these scores were not homogeneous and could not be aggregated at the group level (Bliese, 2000). Further, even though VI and HC scores were sufficiently homogeneous, no cross-level effects were found via HLM. Given this situation, ethnicity was analyzed as a between-group factor together with the other independent variables via traditional OLS regression (see Appendix I for ICCs and HLM details)

Several new variables were added to the regression equations. These included *Service Condition* (rude versus non-rude conditions), the two-way interaction between Service Condition and Service Rank, and the three-way interactions between the four cultural orientation scores, Service Rank, and Service Condition. Next, *ethnicity* was also added to the regression, including the two-way interaction between ethnicity and Service Rank, and the three-way interactions between ethnicity, Service Rank, and Service Condition. The aim was to examine whether ethnicity predicted service responses over and above cultural orientation scores.

Regression results showed that ethnicity did not interact with rank and service condition to influence affective responses, concern for power, or willingness to pay for status and neutral products (see Table 11 for summary). This implied that reactions toward others' negative behaviors were not influenced by one's ethnic background.

As expected, the three-way interaction between VI, Service Rank, and Service Condition ($\beta = .276, t = 5.007, p < .001$) was significant, but more importantly, the three-

way interaction for HC ($\beta = -.406, t = -5.101, p < .001$) was also significant. This was not observed in any of the previous studies. No effects were found for HI and VC.

In the non-rude condition, the interaction of service rank with VI was not significant for any of the dependent variables (Table 3). This ruled out the possibility that high VI participants were simply more appreciative of the service provided by those with high rank. In addition, no significant effects were observed for the other cultural orientations. As such, only results in the rude condition were further analyzed and discussed.

In the rude condition, service rank interacted with VI scores (Figure 11; $\beta = .313, t = 9.497, p < .001$) and with HC scores (Figure 12; $\beta = -.407, t = -8.238, p < .001$) to influence affective responses. Previous findings for VI were replicated. Specifically, the higher participants' VI score, the less favorable were their affective responses when a receptionist was rude ($\beta = -3.23, t = -4.59, p < .001$); but when a hotel vice-president was rude, the higher the participants' VI score, the more favorable were their affective responses ($\beta = .371, t = 6.661, p < .001$). These results were reversed for HC. Specifically, when a receptionist was rude, the higher participants' HC, the more favorable were their affective responses ($\beta = .489, t = 5.837, p < .001$); however, when the hotel-vice-president was rude, the higher the HC level, the less favorable were their affective responses ($\beta = -.347, t = -3.745, p = .001$). A spotlight analysis further confirmed that high HC participants felt less favorable toward the rude vice-president than the rude receptionist ($\beta = -.507, t = -3.505, p = .001$). These results were in line with the theorizing that high HC individuals would respond more negatively when someone of high (versus

low) rank displayed negative behavior because those with power are expected to be benevolent and helpful toward others.

Similar procedures were used for analyzing concern for power. Regression results indicated that only VI and not the other cultural orientation scores interacted with rank and service condition ($\beta = -.340, t = -3.632, p < .001$). As anticipated, in the rude condition, only the VI cultural orientations interacted with service rank to influence concern for power (Figure 13; $\beta = -.363, t = -4.471, p < .001$). Slope analyses revealed that high (versus low) VI participants reported greater power concerns in the receptionist condition ($\beta = 1.241, t = 15.215, p < .001$) as well as the vice-president condition ($\beta = .519, t = 14.234, p < .001$). This replicated previous findings that those with high (versus low) VI were generally more concerned with power. A spotlight analysis showed that high VI participants' power concerns were higher in the rude receptionist than vice-president condition, indicating that they were experiencing greater power threat when treated disrespectfully by a low-ranking person ($\beta = -1.203, t = -7.752, p < .001$).

The three-way interaction between VI, service rank, and service condition was significant for willingness to pay for status products ($\beta = -.538, t = -3.944, p < .001$), but not for neutral products ($\beta = .008, t = .123, p = .902$). Focusing only on the rude service condition, VI interacted with service rank to influence willingness to pay for status products (Figure 14; $\beta = .394, t = -6.157, p < .001$). Rank did not interact with the other cultural orientations. Once again, a slope analysis showed a positive relation between participants' VI level and their willingness to pay for status related products in the low rank condition ($\beta = 1.583, t = 15.094, p < .001$) and high rank condition ($\beta = .738, t = 20.937, p < .001$). A spotlight analysis also showed that those with high VI reported

higher willingness to pay for status products in the rude receptionist (versus vice-president) condition ($\beta = -1.590$, $t = -12.502$, $p < .001$) suggesting that they felt more threatened by the rude receptionist (than the hotel vice-president) and hence more motivated to acquire status products. To further establish the relations between perceptions of power threat and compensatory reactions, mediation tests were conducted.

4.5.3 Mediation Analysis

As predicted, the interaction of VI and service rank on willingness to pay for status products ($\beta = -.355$, $t = -2.693$, $p = .008$) became non-significant ($\beta = .146$, $t = 1.063$, $p = .290$) when the concern for power index was entered as a mediator ($\beta = .958$, $t = 6.352$, $p < .001$), indicating that concern for power fully mediated the interaction of VI and rank on willingness to pay for status products (Sobel's test: $z = -5.480$, $p < .001$). This showed that feelings of power threat were driving participants' compensatory responses¹⁰.

4.5.4 Discussion

The current findings showed that ethnicity as well as group-level cultural orientation scores were not predictive of responses toward others' negative behaviors at the individual level. This may not be surprising because previous literature has

¹⁰ A similar mediation test was also conducted to test the effect of power concerns on affective responses. The interaction of VI and rank on affective responses ($\beta = .211$, $t = 4.568$, $p < .001$) became non-significant ($\beta = .032$, $t = .636$, $p = .526$) after entering concern for power as a mediator ($\beta = -.326$, $t = -6.121$, $p < .001$). This indicated that concern for power mediated the interaction effect of VI and service rank on affective responses (Sobel's test: $z = 5.875$, $p < .001$).

demonstrated that group level cultural variables may not always predict cultural values at the individual level (Oyserman, Coon, & Kemmelmeier, 2002). In addition, Triandis and Gelfand (1998) argued that all four cultural orientations coexist not just within any given individual, but they are also present in every culture. As such, situational factors such as the type of service scenarios used in the current studies may have contributed to stronger effects at the individual- rather than the group-level. Another possibility for the lack group-level predictions could be due to reference group effects (Heine, Lehman, Peng, & Greenholtz, 2002). Because the Hispanic and Asian participants (excluding those from Singapore) had lived in the U.S. for a considerable number of years, they might have responded to the scenarios based on how they thought an Anglo American would have reacted. Supporting this view is evidence from the services literature which suggested that participants of foreign cultures could have adapted to the U.S. culture and evaluated the service scenarios based on local norms. Such cultural adjustment among foreigners or immigrants has been shown to weaken group-level differences in service evaluations (Bennett, 1986; Molinsky, 2007; Stauss & Mang, 1999; Warden, Liu, Huang, & Lee, 2003). Together, these reasons could explain why individual-level cultural orientation scores were stronger predictors in the current study. At the individual-level, the current results replicated previous findings, showing that the more someone had a culturally nurtured concept of power as status (that is, a high VI orientation), the less favorably they responded to, and more threatened they felt, by the negative behavior of someone with low (versus high) rank. More importantly, through the use of a multicultural sample, the study demonstrated effects related to an HC orientation. As the literature suggests, not only is the misuse of power frowned upon within an HC cultural context, those with high

HC tend not to associate power with personal status (Torelli & Shavitt, 2010). As such, being treated rudely would not be expected to implicate one's sense of personal power for people with high HC. This may explain why high HC participants responded less favorably toward the rude behavior of someone with high (versus low) rank.

So far, scores on the VC orientation subscale have not predicted responses to others' negative behavior. It is possible that because for a VC orientation the concept of power is associated with authority (Torelli & Shavitt, 2010; Triandis, 1995), VC scores may only be predictive of one's response in situations involving high-authority service persons such as a doctor. As such, a new hospital scenario was used in the next study.

4.6 STUDY 6

Research has suggested that medical staff such as doctors are perceived as figures of authority (Patterson & Smith, 2001). Because power is associated with authority within a VC cultural context, the effects of VC and rank might be more obvious in contexts involving authority figures.

4.6.1 Methods

Participants were 166 undergraduates (48% male). They included 82 Anglo Americans and 34 East Asians/Asian Americans who received course credits. Another 50 East Asian students participated in the study for \$5 each¹¹. They read a hospital scenario that featured either rude or non-rude services (see Appendix J). In the rude condition, 82

¹¹ Separate analyses were run for East Asians and Asian Americans. Because the pattern of results for these two Asian groups did not differ, their data were combined to increase statistical power.

participants read either about a clinic receptionist (low rank) or a medical consultant (high rank)¹². Eighty-four participants read the non-rude condition. Next, participants reported their satisfaction ($\alpha = .96$), and negative emotions ($\alpha = .89$) after reading the scenarios. Next, they were asked how much authority they felt the hospital service staffer had by responding to a 7-point scale with anchors 1 = very low/ 7 = very high. Next, they completed the MMG and the willingness to pay task. After responding to the cultural orientation scale (Triandis & Gelfand, 1998), and a scale to measure Social Dominance Orientation (SDO, Pratto, Sidanius, Stallworth, & Malle, 1994; Sidanius & Pratto, 1999), participants provided their demographic data, and were dismissed¹³.

4.6.2 Results

No differences in cultural orientation scores emerged between the Anglo American and Asian samples, these results are presented in Table 12, and the intercorrelations in Table 13. Reliability of the satisfaction ($\alpha = .96$), and negative emotions scale ($\alpha = .89$), and the willingness to pay scale for status products ($\alpha = .76$) and neutral products ($\alpha = .75$) were satisfactory.

¹² In a pretest, students reported on a scale from 1 (very low) to 10 (very high) their perception of social rank of a clinic receptionist and a medical consultant. Results revealed a significant difference in social rank between the two service persons ($t(52) = -11.590$, $p < .001$); medical consultants ($M = 8.11$, $SD = 1.60$) were regarded as having significantly higher social rank than clinic receptionists ($M = 4.15$, $SD = .76$).

¹³ The SDO scale captures beliefs in the inequality of social groups (Pratto, et al., 1994), and previous research showed that SDO correlates with a VI orientation (Torelli & Shavitt, 2010). As such, participants with high SDO levels may respond similarly as those with high VI toward others' negative behaviors. Although it was not part of the hypotheses of this research, the possible predictive role of SDO was explored in this study. Analyses on the SDO measure are in Appendix K.

Similar to study 5, cross-level analysis should be conducted to probe for group-level effects, but because no significant differences in cultural orientation scores emerged between the two cultural groups (see Table 12), and subsequent analysis yielded unsatisfactory ICC scores, the standard OLS approach was used instead. Details of the aggregation procedure for the current study are presented in Appendix L.

Ethnicity did not interact with Service Rank and Service Condition to influence any of the dependent variables. This was similar to the findings in the previous study (see Table 11).

Once again, VI, Service Rank, and Service Condition interacted to influence affective responses ($\beta = .290, t = 3.866, p < .001$). Notably, the three-way interaction for HC ($\beta = -.247, t = -2.389, p = .018$) and VC ($\beta = .297, t = 3.410, p = .001$) was also significant. No effects for HI were observed. No effects were found in the non-rude condition (see Table 3), hence only results for the rude condition are further discussed. In the rude condition, VI scores ($\beta = .257, t = 4.075, p < .001$), HC scores ($\beta = -.270, t = -3.509, p = .001$), and VC scores ($\beta = .260, t = 3.521, p = .001$) interacted with service rank to influence affective responses; these interactions are plotted in figures 15, 16, and 17, respectively.

As shown in Figure 15, when a receptionist was rude, the higher participants' VI scores, the less favorable were their affective responses ($\beta = -.232, t = -1.782, p = .099$); but when the medical consultant was rude, the higher participants' VI scores, the more favorable were their affective responses ($\beta = .312, t = 2.589, p = .019$). Notably, results for the VC orientation were similar to a VI orientation (see Figure 16), the higher participants' VC scores, the less favorable were their affective responses when a

receptionist was rude ($\beta = -.283, t = -2.445, p = .022$), and the more favorable were their affective responses when the medical consultant was rude ($\beta = .294, t = 2.234, p = .036$). These implied that when people favored a vertical cultural orientation, they were more likely to be upset with the negative behaviors of someone with low (versus high) rank (compare figures 15 and 16). However, results were different for HC (Figure 17). In the low rank condition, the higher the participants' HC scores, the more favorable were their affective responses ($\beta = .401, t = 3.477, p = .002$). But in the high rank condition, the higher their HC scores, the less favorable were their affective responses ($\beta = -.328, t = -2.065, p = .051$). This replicated earlier results confirming that high HC individuals were more annoyed with a rude service person with high (versus low) rank. But more importantly, responses of those with high VC were also observed, and the pattern of results was similar to those with high VI.

As expected, service rank and service condition interacted with VI ($\beta = -.329, t = -2.375, p = .019$), and with VC ($\beta = -.311, t = -1.925, p = .056$) to influence concern for power. No effects were reported in the non-rude condition for all the other cultural orientations (see Table 3). In the rude condition, VI (Figure 18; $\beta = -.249, t = -2.435, p = .017$), and VC (Figure 19; $\beta = -.322, t = -2.685, p = .009$) interacted separately with service rank to influence concern for power. HI and HC did not yield significant effects.

Slope analyses indicated that the higher the participants' VI, the greater the frequency of agreement with the power statements in the receptionist condition ($\beta = 1.093, t = 11.257, p < .001$) and in the medical consultant condition ($\beta = .597, t = 25.735, p < .001$). Similarly, the higher the VC level, the greater the frequency of agreement with the power statements in the receptionist condition ($\beta = 1.313, t = 4.504, p < .001$) and in

the medical consultant condition ($\beta = .622, t = 3.546, p = .002$). These results suggested that those with high VI or VC were more concerned than others about their own power. This was expected given that those who emphasized vertical cultural orientations focused more on hierarchy. In addition, spotlight analyses showed that the power concerns for high VI participants ($\beta = -1.156, t = -22.458, p < .001$) and high VC participants ($\beta = -.855, t = -2.967, p = .006$) were higher in the rude receptionist than vice-president condition, indicating that they were experiencing greater power threat when treated disrespectfully by a low-ranking person.

As predicted, VI interacted with service rank and service condition to impact willingness to pay for status products ($\beta = -.519, t = -3.855, p < .001$). However, the three-way interaction for VC was marginal ($\beta = -.284, t = -1.806, p = .073$). As expected, the three-way interactions for VI ($\beta = .019, t = .204, p = .839$) and for VC ($\beta = -.140, t = -1.296, p = .197$) did not influence willingness to pay for neutral products; these results were not discussed further. No other cultural orientations yielded significant effects.

In the rude service condition, service rank interacted with VI scores (Figure 20; $\beta = -.452, t = -5.662, p < .001$), and VC scores (Figure 21; $\beta = -.285, t = -3.049, p = .003$) to influence willingness to pay for status products. No effects emerged for HI and HC (see Table 3).

Slope analyses showed similar results for VI and VC. The higher the participants' VI scores, the more willing they were to pay for status related products in the low rank condition ($\beta = 1.642, t = 13.676, p < .001$) and high rank condition ($\beta = .653, t = 12.143, p < .001$). Similarly, the higher the participants' VC scores, the more willing they were to pay for status products in the high rank ($\beta = 1.143, t = 3.240, p = .003$) and the low rank

condition ($\beta = .546, t = 3.948, p = .001$). Spotlight analyses confirmed that high VI participants ($\beta = -1.942, t = -13.404, p < .001$) and high VC participants ($\beta = -.964, t = -2.700, p = .012$) were more motivated to acquire high status products when offended by the receptionist than the medical consultant. Although these results suggested that those with high VC scores interpreted and responded to the situation similarly as those with high VI scores, but because high VC individuals presumably associate power with authority (Torelli & Shavitt, 2010), high VC individuals' responses should be driven by the perceived authority level of the service person. This prediction was tested next.

4.6.3 Mediation Analysis

Following recommendations (Preacher & Hayes, 2008), double mediation analyses were conducted to test the effects of power concern and perceived authority of the service person on affective responses (Figure 22) and willingness to pay for status products (Figure 23). As seen in Figure 22, results showed that perceived authority ($\beta = .156, t = 3.578, p = .001$), but not concern for power ($\beta = -.169, t = -1.778, p = .082$), mediated the VC X Service Rank interaction on affective responses ($\beta = .029, t = .488, p = .628$). This is in line with the prediction that high VC individuals' affective responses toward a rude service person are driven by the perceived authority of the service person. In addition, as Figure 23 shows, it was concern for power ($\beta = .810, t = 14.535, p < .001$), not perceived authority ($\beta = -.066, t = -.887, p = .379$), that mediated high VC participants' willingness to pay for status products ($\beta = .005, t = .039, p = .969$). This is consistent with the prior studies that showed that feelings of power threat triggered compensatory consumption of status goods.

Analyses were also conducted to examine the mediation effects of power concern on the influence of VI X Service Rank on affective responses (Figure 24) and willingness to pay for status products (Figure 25). Because the regression path from VI X Service Rank on authority was not significant ($\beta = .100$, $t = .903$, $p = .369$), simple mediation analyses were run (Baron & Kenny, 1986). As figures 24 and 25 show, the interactions of VI and service rank on affective responses (Sobel's test: $z = 2.506$, $p = .012$) as well as willingness to pay for status products (Sobel's test: $z = -3.015$, $p = .003$) were fully mediated by power concerns. These results replicated study 5's mediation findings.

CHAPTER 5

GENERAL DISCUSSION

Across six studies, this research demonstrated that interpretation of social situations can be influenced by one's cultural orientation as well as the social rank of other actors. Specifically, because individuals high in the cultural orientation of Vertical Individualism (VI) focus on personal power and status, they tend to think about how their own power is implicated during social interactions, particularly when other people have low rank and are thus expected to be deferential. In contrast, those who score highly on Horizontal Collectivism (HC) have culturally nurtured power goals that are associated with helpful behaviors, thus these people tend not to interpret situation as implicating their own power, but they expect people with high rank to behave benevolently. Although hierarchy is important for individuals with high Vertical Collectivism (VC), they only think about how their own power is implicated in contexts where the notion of authority is salient. These effects were demonstrated in the six studies presented here. Specifically, study 1 showed that participants high in VI responded less favorably to the negative behavior of a receptionist (low rank) than a hotel vice-president (high rank). When given the chance to self-affirm, these effects went away, implying that the situation was interpreted as a threat only by those high in VI. Study 2 manipulated participants' social rank and demonstrated that when participants high in VI assumed the role of a business executive (versus a student), they felt less favorable when a desk manager was rude. Study 3 replicated the results by using an actual situation where participants received negative treatment from an experimenter posing as a professor (high rank) or a lab

assistant (low rank). Further, the study directly measured participants' power concerns and compensatory reactions. Results revealed that when someone with low (versus high) rank was rude, participants high in VI experienced more of a power threat and were more motivated to regain their power by acquiring status-enhancing products. Study 4 examined cognitive responses and showed that those high in VI felt disrespected when a receptionist treated them rudely but not when a hotel vice-president did. Together, these four studies provided converging evidence that those high in VI interpreted the negative behavior of someone with low rank as a threat to their personal power.

To expand the current discussion beyond the role of a VI orientation and personalized power concepts, study 5 and 6 employed a multicultural sample. The inclusion of participants with different ethnic backgrounds increases the coverage of vertical and horizontal cultures, which not only increases the potential of tapping effects related to the others cultural orientations, but also allows for generalizing the current results across different cultural groups. The effects of a VI orientation were replicated in both studies, but more importantly, these studies revealed effects associated with HC and VC (study 6). Specifically, participants high in HC responded less favorably to the negative behaviors displayed by a high (versus low) ranking other. However, these participants did not report increased power concerns or motivation to restore power, implying that even though they felt upset about others' negative behavior, the situation was not perceived as a power threat. Instead, presumably because their concept of power is associated with benevolence (Torelli & Shavitt, 2010), they expected more helpful behaviors from someone with high (versus low) rank. These responses were the reverse of those displayed by those with high VI. Together, the contrasting reactions by high VI

versus high HC participants validated the assumptions about the concept of power associated with these two cultural orientations.

Study 6 used a hospital scenario featuring either a rude medical consultant (high authority) or a rude clinic receptionist (low authority). Because high VC individuals presumably associate power with authority (Torelli & Shavitt, 2010), participants with high VC reported less favorable affective responses, more power concerns, and higher motivation to acquire status enhancing products when a clinic receptionist (versus medical consultant) was rude. Although this suggested that those high in VC interpreted and responded to the situation similarly as those high in VI, mediation tests showed that the perceived level of authority of the service person mediated the responses associated with a VC but not a VI cultural orientation. Once again, this validated the assumptions about the distinct concepts of power associated with a VC and a VI orientation.

Taken together, these results contribute to the literature in several ways. First, although past research on the horizontal and vertical cultural distinction (Singelis, et al., 1995; Triandis, 1995; Triandis & Gelfand, 1998) addressed how an emphasis on hierarchy influences individuals' perceptions and attitudes, it did not address the possibility that cultures nurture distinct views of power (Torelli & Shavitt, 2010). The current research contributes to the study of culture by showing how the reactions as well as thought processes of individuals with different cultural orientation differ in situations that implicate their power. For example, in the rude receptionist condition of study 4, the thoughts of participants high in VI were related to self-respect and indignation; whereas the thoughts of those low in VI were more forgiving and focused on external attributions. In contrast, in the rude vice president condition, participants high in VI thought about

avoiding conflict whereas those low in VI thought about how the hotel vice-president violated role expectations. Hence, applying the Horizontal – Vertical cultural distinction in this research enhances understanding of how culture influences the way individuals perceive power implications in social situations.

Second, past literature on power focused mainly on examining how people behave in a psychological state of feeling powerful versus powerless (e.g., Galinsky, Gruenfeld, & Magee, 2003; Rucker & Galinsky, 2008). In contrast, this research examines power as a relational response to others' social rank, and contributes to the power literature by showing that cultural factors are important antecedents of perceptions of situational power threat.

Based on the common saying that “The customer is always right”, it stands to reason that the paying customer may perceive themselves to be more powerful than the service provider. However, the services literature has suggested that consumers may feel less powerful than service providers who possess a certain expertise, such as tax and finance consultants (Furrer, Liu, & Sudharshan, 2000). The current research offers another perspective to enrich the services literature: A consumer's perceived power also depends on how cultural orientation affects the consumer's interpretation of the service provided by a high- versus low-ranking service person. The existing services literature has yet to consider how consumers' culturally nurtured views about power impact service encounters. For example, based on the current results, consumers high in VI may be likely to lodge a complaint against the receptionist whereas those high in HC may be more likely to take action against the hotel vice-president. Understanding the relations between culture and power concepts may also aid service recovery. For example, because

consumers high in VI feel that their power is threatened by a rude receptionist, instead of giving a free fruit basket or an apology letter, hotel managers should offer compensation such as a free upgrade to a VIP room to help these consumers restore their sense of power. Future research can examine how post-recovery service satisfaction may be enhanced by using specific strategies targeted at fulfilling consumers' culturally nurtured power goals.

The current findings also imply several avenues for future research. For example, Oyserman (2009) provided an integrative review of how *identity-based motivations* (IBM) may trigger mindsets and action tendencies. The current research maps onto the IBM framework by showing how, for those high in VI, negative behaviors by someone with low social rank triggers the mindset to perceive a power threat, and thus triggers a readiness to restore power, for instance by seeking status goods. Future research can investigate how different contexts related to power may trigger specific cultural identities, resulting in distinct action tendencies.

The current research featured only two service scenarios. Future research can examine different service settings to test the generalizeability of the current results. For example, a parking attendant typically has low social rank, but possesses high authority within the context of a car-park. If the parking attendant is rude while issuing a parking ticket, how might the situation implicate power for those high in VI and those high in VC?

The current research focused on rude services as an exemplar of negative behaviors. Future studies can examine how others' positive behaviors are interpreted and how culture moderates such interpretations. For example, as a function of one's cultural

orientation, how might a service person's flattery impact satisfaction and purchase intentions? Does the rank of the ingratiating service person influence perceptions of sincerity? How may flattery implicate customers' power, and what role does culture play? Answers to these questions serve not only the interest of academics but also those of managers and business practitioners. So far, no effects related to power were observed as a function of one's score in Horizontal Individualism (HI). Because the freedom to act without constrain has been defined as a form of power (Lammers, Stoker, & Stapel, 2009), given high HI individuals' emphasis on self-expression, when others' negative behavior constrained high HI individuals' ability to express themselves, would the situation be perceived as a threat to their freedom, hence triggering a powerless psychological state? What types of compensatory responses will these individuals then exhibit? Answers to these questions can further enhance our understanding of how people's culturally nurtured views of power can shape interpretations of, and responses to, social situations that can implicate power.

Last but not least, a limitation of the current research is that no effects are observed at the group-level. Future research can collect data across countries rather than focusing on participants within the U.S. This way, one can avoid the possible situation where participants assimilate to local service norms, hence weakening possible group-level results.

CHAPTER 6

CONCLUSIONS

Because cultural orientations influence the goals associated with power (Torelli & Shavitt, 2010), individuals interpret power-related situations differently. The current research examines this phenomenon in a service context and shows that consumers with different cultural orientations interpret negative behavior by low- versus high-ranking service persons in different ways. Specifically, in everyday settings such as a hotel or a computer lab, when those high in VI encountered the rude behavior of someone of low relative rank, they experienced it as a power threat. Subsequently, they were more motivated than those low in VI to restore power by showing compensatory responses toward status products. In contrast, those high (versus low) in HC responded less favorably when someone of high rank displayed negative behaviors, but the situation was not interpreted as a power threat. This was expected because high HC individuals did not associate power with personal status; instead, they believed that those with power should exhibit helpful behaviors (Torelli & Shavitt, 2010). In a separate study using a hospital setting, in which rank is based on authority, those high in VC and in VI displayed a similar pattern of responses. However, only the responses of those high in VC were mediated by the perceived authority of the service person. In sum, these results add to the study of culture by showing how culture influences perceptions of negative behavior that implicate one's power.

REFERENCES

- Aaker, J. L. (2006). Delineating culture. *Journal of Consumer Psychology*, 16(4), 343-347.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publication.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bennett, M. J. (1986). A developmental approach to training for intercultural sensitivity. *International Journal of Intercultural Relations*, 10(2), 179-196.
- Bliese, P. (2000). Within-group agreement, non-independence, and reliability. In K. Klein & S. Kozlowski (Eds.), *Multi-level theory, research, and methods in organizations* (pp. 349–381). San Francisco, CA: Jossey-Bass.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-cultural Psychology*, 1(3), 185-216.
- Cacioppo, J. T., & Petty, R. E. (1981). Social-psychological procedures for cognitive response assessment: The thought listing technique. In T. Merluzzi, C. Glass & M. Genest (Eds.), *Cognitive assessment* (pp. 309-342). New York: Guilford.
- Chiu, C.-y., & Hong, Y.-y. (2006). *Social Psychology of Culture*. New York: Psychology Press.

- Cutright, K. M., Wu, E. C., Banfield, J. C., Kay, A. C., & Fitzsimons, G. J. (2011). When your world must be defended: Choosing products to justify the system. *Journal of Consumer Research*, 38(1).
- Fiske, A. P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review*, 99(4), 689-723.
- Furrer, O., Liu, B. S.-C., & Sudharshan, D. (2000). The relationships between culture and service quality perceptions: Basis for cross-cultural market segmentation and resource allocation. *Journal of Service Research*, 2(4), 355-371.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of Personality and Social Psychology*, 85(3), 453-466.
- Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales?: The reference-group effect. *Journal of Personality and Social Psychology*, 82(6), 903-918.
- Hofstede, G. H. (1980). *Culture's consequences: International differences in work-related values*. Newbury Park, CA: Sage.
- Hofstede, G. H. (2001). *Culture's consequences : comparing values, behaviors, institutions and organizations across nations*. . Thousand Oaks, California: Sage.
- Johnson, C. S., & Stapel, D. A. (2007). No pain, no gain: The conditions under which upward comparisons lead to better performance. *Journal of Personality and Social Psychology*, 92(6), 1051-1067.
- Kelly, S. W., & Davis, M. A. (1994). Antecedents to customer expectations for service recovery. *Journal of Academy of Marketing Science*, 22(1), 52-61.

- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265-284.
- Kimmelmeier, M., Burnstein, E., Krumov, K., Genkova, P., Kanagawa, C., Hirshberg, M. S., et al. (2003). Individualism, collectivism, and authoritarianism in seven societies. *Journal of Cross-Cultural Psychology*, 34(3), 304-322.
- Kim, S., & McGill, A. L. (2011). Gaming with Mr. Slot or gaming the slot machine? Power, anthropomorphism, and risk perception. *Journal of Consumer Research*, 38(1).
- Kirkman, B. L., Chen, G., Farh, J.-L., Chen, Z. X., & Lowe, K. B. (2009). Individual power distance orientation and follower reactions to transformational leaders: a cross-level, cross-cultural examination. *Academy of Management Journal*, 52(4), 744-764.
- Lalwani, A. K., & Shavitt, S. (2009). The "me" I claim to be: Cultural self-construal elicits self-presentational goal pursuit. *Journal of Personality and Social Psychology*, 97(1), 88-102.
- Lammers, J., Stoker, J. I., & Stapel, D. A. (2009). Differentiating social and personal power: Opposite effects on stereotyping, but parallel effects on behavioral approach tendencies. *Psychological Science*, 20(12), 1543-1549.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychology Review*, 98(2), 224-253.
- Meyers-Levy, J. (2006). Using the horizontal/vertical distinction to advance insights into consumer psychology. *Journal of Consumer Psychology*, 16(4), 347-351.

- Molinsky, A. (2007). Cross-cultural code-switching: The psychological challenges of adapting behavior in foreign cultural interactions. *Academy of Management Review*, 32(2), 622-640.
- Nelson, M. R., & Shavitt, S. (2002). Horizontal and vertical individualism and achievement values: A multimethod examination of Denmark and the United States. *Journal of Cross-Cultural Psychology*, 33(5), 439-458.
- Oyserman, D. (2006). High power, low power, and equality: Culture beyond individualism and collectivism. *Journal of Consumer Psychology*, 16(4), 352-356.
- Oyserman, D. (2009). Identity-based motivation: Implications for action-readiness, procedural-readiness, and consumer behavior. *Journal of Consumer Psychology*, 19(3), 250-260.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128(1), 3-72.
- Patterson, P. G., & Smith, T. (2001). Modeling relationship strength across service types in an Eastern culture. *International Journal of Service Industry Management*, 12(2), 90-113.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67(4), 741-763.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models *Behavior Research Methods*, 40(3), 879-891.

- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical Linear Models* (second ed.). Thousand Oaks, California: Sage.
- Rucker, D. D., & Galinsky, A. D. (2008). Desire to acquire: Powerlessness and compensatory consumption. *Journal of Consumer Research*, 35(2), 257-267.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 25, pp. 1-65). New York: Academic Press.
- Schwartz, S. H., & Bilsky, W. (1987). Toward a universal psychology structure of human values. *Journal of Personality and Social Psychology*, 53(3), 550-562.
- Schwartz, S. H., & Bilsky, W. (1990). Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology*, 58(5), 878-891.
- Shavitt, S. (1990). The role of attitude objects in attitude functions. *Journal of Experimental Social Psychology*, 26, 124-148.
- Shavitt, S., Lalwani, A. K., Zhang, J., & Torelli, C. J. (2006). The horizontal/vertical distinction in cross-cultural consumer research. *Journal of Consumer Psychology*, 16(4), 325-342.
- Shavitt, S., Torelli, C. J., & Riemer, H. (2011). Horizontal and vertical individualism and collectivism: Implications for understanding psychological processes. In M. Gelfand, C.-y. Chiu & Y.-y. Hong (Eds.), *Advances in Culture and Psychology* (Vol. 1). Oxford University Press.
- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press.

- Singelis, T. M., Triandis, H. C., Bhawuk, D. P. S., & Gelfand, M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-cultural Research*, 29(3), 240-275.
- Sokolowski, K., Schmalt, H.-D., Langens, T. A., & Puca, R. M. (2000). Assessing achievement, affiliation, and power motives all at once: The Multi-Motive Grid (MMG). *Journal of Personality Assessment*, 74(1), 126-145.
- Stauss, B., & Mang, P. (1999). "Culture shocks" in inter-cultural service encounters? *Journal of Services Marketing*, 13(4), 329-346.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol. 21: *Social psychological studies of the self: Perspectives and programs* (pp. 261-302). San Diego, CA: Academic Press.
- Steele, C. M., & Liu, T. j. (1983). Dissonance processes as self-affirmation. *Journal of Personality and Social Psychology*, 45(1), 5-19.
- Torelli, C. J., & Shavitt, S. (2010). Culture and concepts of power. *Journal of Personality and Social Psychology*, 99(4), 703-723.
- Triandis, H. C. (1995). *Individualism & collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74(1), 118-128.
- Ueltschy, L. C., Laroche, M., Tamilya, R. D., & Yannopoulos, P. (2004). Cross-cultural invariance of measures of satisfaction and service quality. *Journal of Business Research*, 57(8), 901-912.

- Warden, C. A., Liu, T.-C., Huang, C.-T., & Lee, C.-H. (2003). Service failures away from home: benefits in intercultural service counters. *International Journal of Service Industry Management*, 14(4), 436-457.
- Woike, B. (1995). Most-memorable experiences: Evidence for a link between implicit and explicit motives and social cognitive processes in everyday life. *Journal of Personality and Social Psychology*, 68(6), 1081-1091.
- Woike, B., Mcleod, S., & Goggin, M. (2003). Implicit and explicit motives influence accessibility to different autobiographical knowledge. *Personality and Social Psychology Bulletin*, 29(8), 1046-1055.
- Zhang, Y., Winterich, K. P., & Mittal, V. (2010). Power distance belief and impulsive buying. *Journal of Marketing Research*, 47(5), 945-954.

APPENDIX A – RUDE HOTEL SERVICE SCENARIO FEATURING RECEPTIONIST VERSUS VICE-PRESIDENT.

You are on vacation in the U.S. and you are about to check-in to a 5-star hotel. You approach the Front-desk and say “hi” to a hotel staff. She is wearing a service tag that says Receptionist [Vice-president]. But this person does not reply you, she simply asks for your reservation number and credit card while staring at her computer screen.

The hotel receptionist [hotel vice-president] then asks you a few standard questions about your room preference in an unfriendly and monotonous tone, and then remains silent. During this entire time, she does not smile and does not look at you. In fact, her facial expression is rather hostile. When she is returning your credit card, she does it simply by throwing the card on the reception table instead of handing it back to you. After you receive your room keys, you left the reception area.

APPENDIX B – CULTURAL ORIENTATION SCALE.

Using the scale below, please indicate your level of agreement with each statement by writing the appropriate number in the space next to it. Please, do not spend too much time on any one item.

strongly disagree 1 2 3 4 5 6 7 strongly agree

- _____ 1. I often do my own thing.
- _____ 2. I'd rather depend on myself than others.
- _____ 3. I rely on myself most of the time; I rarely rely on others.
- _____ 4. My personal identity, independent of others, is very important to me.
- _____ 5. Competition is the law of nature.
- _____ 6. When another person does better than I do, I get tense and aroused.
- _____ 7. Winning is everything.
- _____ 8. It is important that I do my job better than others.
- _____ 9. The well being of my co-workers is important to me.
- _____ 10. If a co-worker gets a prize, I would feel proud.
- _____ 11. I feel good when I cooperate with others.
- _____ 12. To me, pleasure is spending time with others.
- _____ 13. Parents and children must stay together as much as possible.
- _____ 14. It is my duty to take care of my family, even when I have to sacrifice what I want.
- _____ 15. Family members should stick together, no matter what sacrifices are required.
- _____ 16. It is important to me that I respect the decisions made by my groups.

Items 1 to 4 measure Horizontal Individualism.

Items 5 to 8 measure Vertical Individualism.

Items 9 to 12 measure Horizontal Collectivism.

Items 13 to 16 measure Vertical Collectivism.

APPENDIX C – RUDE HOTEL SERVICE SCENARIO FEATURING DESK MANAGER (STUDY 2).

Imagine that you are a student [senior business executive] and you are attending a conference [traveling for an important business meeting] within the U.S. You are about to check-in to a 5-star hotel. You approach the Front-desk and say “hi” to a hotel staff. She is wearing a service tag that says Desk Manager. But this person does not reply you, she simply asks for your reservation number and credit card while staring at her computer screen.

The desk manager then asks you a few standard questions about your room preference in an unfriendly and monotonous tone, and then remains silent. During this entire time, she does not smile and does not look at you. In fact, her facial expression is rather hostile. When she is returning your credit card, she does it simply by throwing the card on the reception table instead of handing it back to you. After you receive your room keys, you left the reception area.

APPENDIX D – MULTI-MOTIVE GRID.

The MMG combines features of the projective Thematic Apperception Test (TAT) with features of self-report questionnaires. Sokolowski and colleagues (2000) have provided evidence for the reliability and validity of this method to measure implicit power needs. The MMG consists of ambiguous drawings depicting people in different situations. Each picture is accompanied with several statements that describe thoughts that may be related to the depicted situation. Some statements are associated with power-related thoughts such as *fear of losing power*, and *hope of gaining power*, whereas others are filler statements. Respondents give a yes/no rating to each statement and their implicit motives are measured by summing the number of times they agreed with statements related to power (up to 12 for each power concern). If individuals experience power threat when offended by a rude service person, they should be motivated to maintain their own power in this condition. Consequently, they should be likely to report a higher frequency of “yes” responses to statements related to power concerns in the MMG task.

Sample MMG picture:



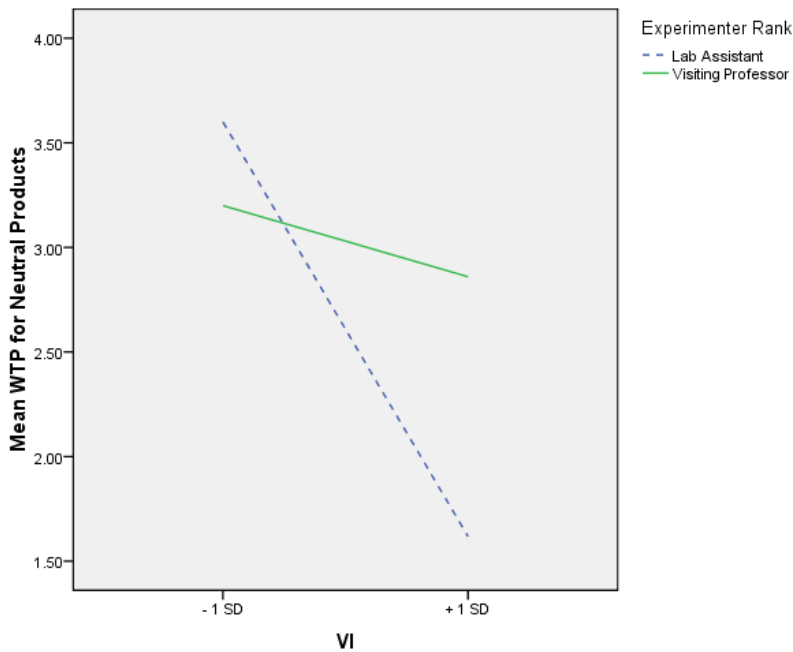
After viewing the picture, please indicate if you were thinking about the following by putting a tick under “Yes” or “No”.

	Yes	No
Feeling good about meeting other people		
Anticipating to lose standing		
Being afraid of being rejected by others		
Thinking about lacking abilities at this task		
Being afraid of being overpowered by other people		
Wanting to postpone a difficult task for a while		
Hoping to get in touch with other people		

APPENDIX E – WILLINGNESS TO PAY FOR NEUTRAL PRODUCTS IN NON-SCENARIO BASED STUDY 3.

Willingness to pay for neutral products was influenced by the interaction between VI and the experimenter's rank ($\beta = .398, t = 2.317, p = .023$). Based on Figure 7 (below), slope analysis revealed that when offended by a lab assistant, the higher the participants' VI level, the less willing they were to pay for neutral products ($\beta = -.518, t = -4.442, p < .001$). However, the slope for the rude visiting professor was not significant ($\beta = -.144, t = -1.294, p = .202$). Subsequent spotlight analysis suggested that participants high in VI were less willing to pay for neutral products in the lab assistant versus visiting professor condition ($\beta = 1.242, t = 3.558, p = .002$). It was speculated that because of the focal need to restore power among high VI participants in the lab assistant condition, products unrelated to status were devalued. Such devaluation effects can occur for items that are considered irrelevant to one's focal goals (Brendl, Markman, & Messner, 2003). The spotlight analysis was not significant at -1SD level of VI ($\beta = -.400, t = -1.040, p = .311$).

Figure 7: Willingness to Pay for Neutral Products in Non-scenario Experiment (Study 3).



Willingness to pay for neutral products

One-way ANOVA, $F(3,38) = 11.343, p = .001$.

	-1SD VI			+1SD VI		
	NEUTWTP	Std. Deviation	Post Hoc	NEUTWTP	Std. Deviation	Post Hoc
Lab Assistant	3.60	0.921	$p = .80$	1.62	0.555	$p < .01$
Visiting Professor	3.20	0.833		2.86	1.002	

**APPENDIX F – NON-RUDE SERVICE SCENARIO FEATURING RECEPTIONIST
AND VICE-PRESIDENT (STUDY 5).**

You are on vacation in the U.S. and you are about to check-in to a 5-star hotel. You approach the Front-desk and say “hi” to a hotel staff. She is wearing a service tag that says Receptionist [Vice-president]. This person asks for your reservation number and credit card, and retrieves your information from her computer.

The hotel receptionist [hotel vice-president] then asks you a few standard questions about your room preference. Next, she returns your credit card and let you sign the check-in sheet. After you receive your room keys, you left the reception area.

APPENDIX G – COMPARING CULTURAL ORIENTATION SCORES ACROSS RUDE VS. NON-RUDE SERVICE SCENARIOS.

Results for Study 5						Results for Study 6		
	Rank	Service Type	Mean Centered Scores	t	Sig.	Mean Centered Scores	t	Sig.
HI	Low	Non-rude	0.006	-0.308	0.758	-0.206	1.107	0.272
		Rude	0.043			0.062		
	High	Non-rude	0.050	1.375	0.170	0.200	-1.239	0.219
		Rude	-0.118			-0.061		
VI	Low	Non-rude	0.048	0.065	0.945	0.068	-0.209	0.835
		Rude	0.038			0.011		
	High	Non-rude	-0.025	0.22	0.826	0.045	-0.715	0.477
		Rude	-0.059			-0.122		
HC	Low	Non-rude	-0.039	-0.495	0.621	-0.134	1.134	0.260
		Rude	0.017			0.066		
	High	Non-rude	-0.060	-0.676	0.499	0.005	0.294	0.769
		Rude	0.014			0.062		
VC	Low	Non-rude	0.085	1.174	0.241	-0.064	0.312	0.756
		Rude	-0.076			0.004		
	High	Non-rude	0.115	0.262	0.793	-0.009	0.346	0.730
		Rude	0.081			0.068		

Independent T-tests were conducted to compare cultural orientation scores by matching the service rank manipulations across the two service conditions. Results did not reveal any significant effects, indicating that even though cultural orientation scores were measured after participants read the rude service scenarios, their cultural orientations were not affected.

Subsequently, the cultural orientation scores for studies 5 and 6 were combined, and subjected to a 2 (service rank: high vs. low) x 2 (service condition: rude vs. control) ANOVA. No significant interactions emerged between service conditions and service ranks for HI ($F(1,546) = 1.432, p = .232$), VI ($F(1,546) = .011, p = .915$), HC ($F(1,546) = .013, p = .911$), and VC ($F(1,546) = .455, p = .500$). These results further confirmed that the manipulations did not affect participants' cultural orientations.

**APPENDIX H – COMPARING VARIANCES OF CULTURAL ORIENTATION
SCORES BETWEEN STUDIES 1 TO 4 WITH STUDIES 5 AND 6.**

	Studies 1 to 4					Studies 5 & 6					Levene's Test of Equality of Variance	
Mean Centered	Min	Max	Mean	SD	Variance	Min	Max	Mean	SD	Variance	F	Sig.
HI	-2.29	1.71	.013	.835	.697	-3.79	1.71	-.012	.979	.958	9.69	0.002
VI	-3.00	2.22	.030	1.15	1.31	-3.54	2.21	-.002	1.26	1.60	8.11	0.005
HC	-2.23	1.77	.003	.785	.616	-3.23	1.85	-.010	.895	.800	8.45	0.004
VC	-3.12	1.63	-.035	.920	.846	-4.46	1.74	.040	1.07	1.15	8.97	0.003

Levene's test of equality of variance showed that the variances for the four cultural orientation scores differed significantly between studies 1 to 4 and studies 5 and 6. Specifically, results shown in the table above indicated that the variances for the cultural orientation scores were increased in studies 5 and 6 after a multicultural sample was used. The increased variations in cultural orientation scores could have contributed to the predictability of HC and VC scores in studies 5 and 6.

APPENDIX I – CROSS-LEVEL ANALYSIS USING HIERARCHICAL LINEAR MODELING (STUDY 5).

Some research has shown differences in group-level cultural orientation scores between cultural groups. For example, Hispanics tend to score higher in HC and lower in VI than Anglo Americans (Torelli & Shavitt, 2010). This pattern was replicated in the preliminary analysis. Hence, it is possible for group-level cultural orientation scores to add to the variance explained by the individual-level cultural orientation scores. To examine this effect, a cross-level analysis was conducted using Hierarchical Linear Modeling (Raudenbush & Bryk, 2002).

A cross-level analysis is conceptually similar to OLS regression analysis with interaction terms for testing moderating effects. However, the difference is that higher level moderators (e.g., countries) replace the usual individual-level moderators (e.g., personality). Past cultural research has employed this approach to examine multilevel phenomena (see Cullen, Parboteeah, & Hoegl, 2004; Fu, et al., 2004; Fulmer, et al., 2010; Hui, Au, & Fock, 2004; Torelli & Shavitt, 2010).

In the current study, cultural orientation scores were aggregated for each of the three cultural groups, and these scores were used to operationalize the *group-level cultural orientation scores*. Using aggregate scores as level-2 variables is well accepted in HLM methodology (Bliese, 2000; Enders & Tofighi, 2007; Klein, et al., 2000). However, the fundamental assumption underlying such aggregation processes is that individual-level data are sufficiently homogeneous within groups so that the data may be meaningfully aggregated at the higher level. To test this assumption, the literature suggests several procedures and indices – r_{WG} , ICC1 (Intraclass Correlation Coefficient), and ICC2.

Aggregation Test for Group Cultural Orientation Scores

The r_{WG} index (James, Demaree, & Wolf, 1984, 1993) provides an *assessment of agreement* within a group by defining agreement in terms of the proportional reduction in error variances. Typically, the higher the r_{WG} , the stronger within-group agreements of the construct (James, et al., 1993); values greater than .70 is desirable (James, et al., 1984). In the current study, a high r_{WG} implies strong agreement of individual-level cultural orientation scores within a cultural group and the aggregate of their cultural orientation scores can be used to operationalize group-level cultural orientation scores. The formula for the r_{WG} index provided by James and colleagues (1984, 1993) is:

$$r_{WG} = 1 - S^2_X / \sigma^2_E, \quad (1)$$

where S^2_X is the observed variance on variable X (i.e., cultural orientation scores) and σ^2_E is the variance expected when there is a complete lack of agreement among the participants.

APPENDIX I – STUDY 5 CROSS-LEVEL ANALYSIS USING HIERARCHICAL LINEAR MODELING.

To assess issues of reliability, two intraclass correlation coefficients (ICC) are proposed (Bartko, 1976; James, 1982). For the current study, ICC1 represents the proportion of variance due to cultural group variability, whereas ICC2 reflects the extent to which cultural groups can be used to reliably differentiate individuals' responses for the measures. For ICC1, a significant *F*-test for a one-way random effects ANOVA indicates that ICC1 is significantly different from zero, implying that aggregation is partially justified (Klein, et al., 2000). Note that for ICC1, a

significant *F*-test is the key determinant of whether the data can be aggregated, and the cut-off value varies by the type of research (Klein, et al., 2000). If ICC1 is satisfactory, ICC2 will be evaluated to assess if group means of the aggregated scores can be reliably differentiated across the different groups. ICC2 values greater than .70 are acceptable, values between .50 and .70 are marginal, and values below .50 are poor (Bliese, 2000). The formulas for calculating ICC1 and ICC2 are as follows (p.355, Bliese, 2000):

$$ICC1 = (MSB - MSW) / (MSB + [(k-1)*MSW]) \quad (2)$$

$$ICC2 = (MSB - MSW) / MSB \quad (3)$$

where MSB is the between-group mean square, MSW is the within-group mean square, and k is the group size.

Results of Aggregation Test

A total of 12 r_{WG} indices were calculated; one for each cultural orientation score across the three cultural groups. All the indices exceeded the .70 cut-off, implying strong agreement of individual-level cultural orientation scores within each cultural group. The average r_{WG} for each cultural orientation score was HI = .86, VI = .74, HC = .90, VC = .80.

The ICC1 *F*-tests for HI ($F(2,308) = 1.388, p = .251$), and VC ($F(2,308) = 1.676, p = .172$) were not significant. These were expected since no differences emerged earlier when cross-group differences in cultural orientation scores were analyzed via ANOVA. This implied that the variance in scores explained by the HI and VC aggregate scores were not significantly different from zero, hence aggregation was not recommended for these two cultural orientation scores. The ICC1 *F*-tests for VI ($F(2,308) = 10.087, p < .001$) and HC ($F(2,308) = 50.012, p < .001$) were significant. Based on formula (2), ICC1 for VI was .08 and HC was .32. This partially justified the aggregation procedure because it implied that group-level VI and HC scores helped explain 8% and 32% of the total variance, respectively.

APPENDIX I – STUDY 5 CROSS-LEVEL ANALYSIS USING HIERARCHICAL LINEAR MODELING.

Based on formula (3), ICC2 for VI and HC were .90 and .97 respectively, indicating that group-level scores for VI and HC differentiated significantly between
Appendix G – Study 5 Cross-level Analysis using Hierarchical Linear Modeling (Continued).

groups. Together, these indices supported the aggregation of VI and HC, but not HI and VC. As such, the HLM model will only include aggregate VI and HC scores at level-2. Because HI and VC are not included in the HLM model, the conventional approach to establishing moderation was employed; i.e., treating ethnicity as a between-groups factor and examining whether ethnicity moderated the current pattern of results. The HLM models are proposed next.

The HLM Models

In study 5, six separate compositional models were proposed, one for each dependent variable – Satisfaction, Negative Affect, Fear of Losing Power, Hope of Gaining Power, Willingness-to-pay for status products (STATSWTP), and Willingness-to-pay for neutral products (NEUTWTP).

At level-1, these DVs were regressed individually against VI and HC cultural orientation scores, service rank (receptionist vs. vice-president), service condition (rude vs. non-rude), the various two-way interactions, as well as the three-way interactions between cultural orientation scores (i.e., VI and HC), service rank, and service condition. This is conceptually similar to the OLS regression presented in the earlier studies. At level-2, the equations are set up to examine the degree to which group-level VI and HC cultural orientation scores contribute to the variance explained by the respective 3-way interaction variable at level-1¹. If a cross-level slope coefficient is significant, it means that group-level cultural orientation scores influence perceptions of power threat, and it will be necessary to conduct separate slope analyses to examine how group- and individual-level orientation scores predict perceptions of power threat.

Due to the numerous independent variables, the two-level model is presented by a system of equations rather than a single equation representing a mixed-effects model (Luke, 2004).

¹ Note that HI and VC were excluded because they failed the aggregation test.

APPENDIX I – STUDY 5 CROSS-LEVEL ANALYSIS USING HIERARCHICAL LINEAR MODELING.

Level-1 Equation:

$$(1) Y = B0 + B1*(SVC_COND) + B2*(SVC_RANK) + B3*(SVC_COND \times SVC_RANK) + B4*(VIMCTR) + B5*(HCMCTR) + B6*(VIMCTR \times SVC_RANK) + B7*(HCMCTR \times VC_RANK) + B8*(VI_3WAY) + B9*(HC_3WAY) + R$$

Level-2 Equations:

$$(2) B0 = G00 + U0$$
$$(3) B8 = G80 + G81*(VI_GRP_M) + U1$$
$$(4) B9 = G90 + G91*(HC_GRP_M) + U2$$

Variables in Level-1 equations:

SVC_COND: service conditions (rude versus non-rude).

SVC_RANK: rank of the service person (hotel receptionist versus vice-president).

SVC_COND x SVC_RANK: interaction between service condition and service rank.

VIMCTR and HCMCTR: mean centered scores of individual-level VI and HC.

VIMCTR x SVC_RANK: interaction between mean centered VI and Service Rank

HCMCTR x SVC_RANK: interaction between mean centered HC and Service Rank

VI_3WAY: three-way interaction between VI, Service Rank, and Service condition

HC_3WAY: three-way interaction between VI, Service Rank, and Service condition

B0 denotes the intercept for the level-1 equation; B1 to B9 are the slope coefficients for the level-1 independent variables; R is the level-1 residual.

Variables in level-2 equations:

VI_GRP_M and HC_GRP_M are the group-level cultural orientation scores for VI and HC.

G00, G80, and G90 are the intercepts for the level-2 equations; U0, U1, and U2 are the level-2 residuals.

G81 and G91 denote the slope coefficients which represent the cross-level effects of aggregate cultural orientation scores on B8 and B9 at level-1.

The DVs in level-2 equations 3 and 4 are the slope coefficients of the 3-way interaction terms in level-1 (i.e., B8 and B9). Using equation 3 as an example, if G81 is significant, it means that the aggregated VI scores moderated the 3-way interactions between service rank, service condition, and individual VI scores at level-1. This implies that aggregate VI scores influence participants' responses to rude service, and the next step will be to conduct slope analyses to examine if the interactions were consistent at both individual- and group-level.

APPENDIX I – STUDY 5 CROSS-LEVEL ANALYSIS USING HIERARCHICAL LINEAR MODELING.

HLM Analysis

The analysis did not reveal any cross-level effects by the group-level cultural orientation scores on all the dependent variables (see table below), the level-2 slope coefficients G81 and G91 were not significant in all the models, implying that group-level cultural orientation scores did not contribute to the variance explained by individual-level cultural orientation scores².

Dependent Variable	VI_Group (G81)			HC_Group (G91)		
	Coefficient	T-ratio	P-value	Coefficient	T-ratio	P-value
Satisfaction	0.072	0.512	0.608	-0.064	-0.438	0.662
Negative Affect	-0.067	-0.707	0.480	-0.034	-0.344	0.730
Fear of Losing Power	-0.107	-0.587	0.557	0.001	0.046	0.964
Hope of Gaining Power	-0.149	-0.757	0.450	0.019	0.089	0.930
WTP - Status Products	0.143	0.710	0.478	-0.234	-0.940	0.348
WTP - Neutral Products	0.066	0.598	0.550	-0.181	-1.268	0.206

Notes: WTP = Willingness to pay

One possible reason for the lack of effects may be that the Hispanic and Asian participants have adjusted their service evaluations based on local norms. Previous literature examining cultural effects in service expectations has shown that as foreigners assimilate into a host nation's culture, they also adjust their service evaluations to the quality of service expected in the host nation. Such cultural adjustment among foreigners or immigrants can weaken group-level differences in service evaluations (Bennett, 1986; Molinsky, 2007; Stauss & Mang, 1999; Warden, et al., 2003).

² Although HI and VC did not qualify the aggregation test, they were included in a separate set of analyses in which all four cultural orientations were included in the HLM models at the individual- and group-level. The results were not any different from the current analyses; no cross-level effects emerged.

APPENDIX J – HOSPITAL SERVICE SCENARIO FEATURING CLINIC RECEPTIONIST AND MEDICAL CONSULTANT (STUDY 6).

Rude service scenario:

You just visited a friend in the hospital. As you were leaving, you wanted to use the restroom but couldn't find one. You saw a uniform staff member walking toward you; she was wearing a tag that says Clinic Receptionist [Senior Medical Consultant].

You went up to this person to ask for directions to the restroom. However, the Clinic Receptionist [Senior Medical Consultant] did not reply to you. Instead she pointed to a map on the wall and told you coldly to read the map yourself. Next, she turned and walked away, giving you a hostile stare.

Non-rude service scenario:

You just visited a friend in the hospital. As you were leaving, you wanted to use the restroom but couldn't find one. You saw a uniform staff member walking toward you; she was wearing a tag that says Clinic Receptionist [Senior Medical Consultant].

You went up to this person to ask for directions to the restroom. The Clinic Receptionist [Senior Medical Consultant] pointed to a location map on the wall and gave you simple instructions to the nearest restroom. Next, both of you went on your separate ways.

APPENDIX K – ANALYSES OF SDO RESULTS (STUDY 6).

As expected, SDO scores correlated with VI ($r = .441, p < .01$) replicating the findings of previous research (Torelli & Shavitt, 2010). SDO was also weakly correlated with VC ($r = .153, p < .05$). Excerpts of intercorrelation results from Table 13 are reproduced below.

Excerpts of intercorrelation results from Table 13.

	1	2	3	4
1 HI	-			
2 VI	0.088	-		
3 HC	0.04	0.012	-	
4 VC	0.04	-0.02	-0.081	-
5 SDO	-0.046	.441**	0.089	.153*

⁺WTP = Willingness to pay, * $p < .05$ (2-tailed), ** $p < .01$ (2-tailed)

SDO as well as its relevant interaction terms were analyzed via regression. Results showed that SDO did not interact with service rank and service condition to influence any of the dependent variables (excerpts of regression results from Table 11 are reproduced below). In other words, SDO was not predictive of responses to others' behavior in the current study. Although VI and VC were correlated with SDO, they are distinct concepts. SDO measures one's preferences for hierarchy within a social system (Sidanius & Pratto, 1999), it does not address how concepts of power are influenced by one's cultural orientation.

Excerpts of regression results for SDO from Table 11.

Study	Dependent Variable	Interaction between SDO, Service Rank, and Service Condition
6	Affective Response Index	-0.044
(Hospital Scenario)	Concern for Power Index	-0.086
	WTP - Status Products	-0.123
	WTP - Neutral Products	-0.163

Notes: WTP = Willingness to pay; * $p < .05$; ** $p < .001$

APPENDIX L – AGGREGATION PROCEDURE FOR CROSS-LEVEL ANALYSIS (STUDY 6).

Following the aggregation test procedures suggested in study 5 (see Appendix I), even though the average r_{WG} for each cultural orientation exceeded the cut-off value of .70 (HI = .82, VI = .78, HC = .88, VC = .83), ICC1 results were poor for each cultural orientation (HI = .01, VI = .02, HC = .01, VC = .01). This was expected since the ANOVA tests on the cultural orientation scores were not significant between Anglo Americans and Asians participants recruited in the current study; the F -values for the four cultural orientations were low, see table below. Because individual-level scores could not be aggregated as group-level scores, the HLM procedure was not run, and the OLS approach was adopted instead.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
HI	Between Groups	.020	1	.020	.018	.892
	Within Groups	174.465	164	1.064		
	Total	174.485	165			
VI	Between Groups	1.530	1	1.530	1.169	.281
	Within Groups	214.507	164	1.308		
	Total	216.037	165			
HC	Between Groups	.251	1	.251	.351	.554
	Within Groups	117.394	164	.716		
	Total	117.645	165			
VC	Between Groups	.253	1	.253	.254	.615
	Within Groups	163.233	164	.995		
	Total	163.486	165			

TABLES AND FIGURES

Table 1: Summary of Confirmatory Factor Analysis and Reliability Scores of the Cultural Orientation Scale Across Studies.

Study	Average Factor Loadings*				Variance Explained	Subscale Reliability (α)			
	HI	VI	HC	VC		HI	VI	HC	VC
1	0.68	0.72	0.75	0.64	61.1%	0.77	0.75	0.77	0.68
2	0.69	0.78	0.69	0.83	63.9%	0.74	0.82	0.72	0.71
3	0.69	0.70	0.73	0.71	60.0%	0.71	0.75	0.72	0.75
4	0.72	0.68	0.67	0.65	61.9%	0.64	0.67	0.67	0.62
5	0.73	0.77	0.71	0.68	54.0%	0.72	0.78	0.72	0.70
6	0.69	0.77	0.70	0.75	60.0%	0.78	0.79	0.73	0.67

* All items loaded in its respective subscale.

Table 2: Correlations Between the Four Cultural Orientation Subscales and the Dependent Variables in Study 1.

	1.	2.	3.	4.	5.	6.
1. HI	-					
2. VI	-.016	-				
3. HC	.060	-.173**	-			
4. VC	-.002	.187*	-.084	-		
5. Satisfaction	-.007	.010	-.104	.120	-	
6. Negative Affect	-.007	-.002	-.005	-.058	-.446**	-

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

Table 3: Summary of the Interaction Effects between Cultural Orientation and Rank Across Studies.

Study	Study Condition	Dependent Variable	HI x Rank	VI x Rank	HC x Rank	VC x Rank
1	Non Self-affirmed	Affective Response	.041	0.904**	-.106	.154
	Self-affirmed	Affective Response	-.117	0.366**	-.005	.174
2	Rude Service	Affective Response	.075	-0.976**	.054	.030
3	Rude Experimenter	Affective Response	-.120	0.727**	-.006	-.142
		Concern for Power	.241	-1.226**	-.373	.089
		WTP - Status Products	.092	-0.907**	.784	-.497
		WTP - Neutral Products	-.107	0.398*	-.310	-.319
4	Rude Service	Affective Response	.153	0.982**	.018	.156
5	Non-rude Service	Affective Response	.030	.030	-.001	.063
		Concern for Power	.146	.033	.126	-.028
		WTP - Status Products	-.131	.032	-.067	.047
		WTP - Neutral Products	.057	.027	.013	-.012
	Rude Service	Affective Response	.053	0.313**	-0.407**	.049
		Concern for Power	-.072	-0.344**	.069	.116
		WTP - Status Products	-.005	-0.394**	-.070	.026
		WTP - Neutral Products	.090	-.037	-.109	.055
6	Non-rude Service (Hospital Scenario)	Affective Response	.018	-.045	-.024	-.038
		Concern for Power	-.010	.023	-.031	-.004
		WTP - Status Products	.052	-.014	.063	.000
		WTP - Neutral Products	.044	.015	.041	-.026
	Rude Service (Hospital Scenario)	Affective Response	.073	0.257**	-0.270**	0.260**
		Concern for Power	-.097	-0.250*	-.166	-0.322**
		WTP - Status Products	-.040	-0.452**	-.116	-0.285**
		WTP - Neutral Products	-.044	.038	-.087	-.160

WTP = Willingness to pay; * $p < .05$; ** $p < .001$

Table 4: Correlations Between the Four Cultural Orientation Subscales and the Dependent Variables in Study 2.

	1.	2.	3.	4.	5.	6.
1. HI	-					
2. VI	-.067	-				
3. HC	.118	.214	-			
4. VC	.012	.019	.013	-		
5. Satisfaction	-.177	-.052	-.001	-.114	-	
6. Negative Affect	.339*	.285*	.132	-.006	-.680**	-

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

Table 5: Correlations Between the Four Cultural Orientation Subscales and the Dependent Variables in Study 3.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. HI	-									
2. VI	0.109	-								
3. HC	0.196	-0.012	-							
4. VC	0.137	0.051	0.424**	-						
5. Hope of Power (HP)	0.178	0.721**	0.188	0.091	-					
6. Fear of Losing Power (FP)	0.231	0.558**	0.024	-0.022	0.669**	-				
7. Satisfaction	-0.219	-0.183	-0.248	-0.179	-0.418**	-0.410**	-			
8. Negative Affect	0.309*	0.143	0.070	0.339*	0.418**	0.383*	-0.607**	-		
9. WTP ⁺ for Status Products	0.103	0.631**	-0.202	-0.259	0.587**	0.450**	-0.239	0.298	-	
10. WTP ⁺ for Neutral Products	-0.239	-0.569**	0.027	-0.120	-0.613**	-0.529**	0.374*	-0.518**	-0.557**	-

⁺ WTP = Willingness to pay, * $p < .05$ (2-tailed), ** $p < .01$ (2-tailed)

Table 6: Correlations Between the Four Cultural Orientation Subscales and the Dependent Variables in Study 4.

	1.	2.	3.	4.	5.	6.
1. HI	-					
2. VI	0.269*	-				
3. HC	-0.077	-0.100	-			
4. VC	-0.186	0.133	0.239*	-		
5. Satisfaction	0.069	0.194	-0.096	0.104	-	
6. Negative Affect	-0.021	-0.107	0.030	-0.158	-.382**	.

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

Table 7: Snap Shot of Participants' Thoughts (Study 4).

<p>High VI, Receptionist Condition</p> <ul style="list-style-type: none"> ➤ Indignation & Self-reference: <ul style="list-style-type: none"> ➤ I feel disrespected. ➤ I am really offended by her reactions. ➤ Chiding: <ul style="list-style-type: none"> ➤ I am going to file a complaint against her. ➤ Fire her! 	<p>High VI, Rude Vice President</p> <ul style="list-style-type: none"> ➤ External Attributions: <ul style="list-style-type: none"> ➤ Maybe she is doing someone else's job. ➤ Maybe something bad happened at home. ➤ Avoidance: <ul style="list-style-type: none"> ➤ I rather head to the beach. ➤ What can I do? Complain to the CEO?
<p>Low VI, Rude Receptionist</p> <ul style="list-style-type: none"> ➤ External Attributions: <ul style="list-style-type: none"> ➤ She is having a bad day, no one is that rude. ➤ This hotel has some problems. ➤ She must be having family problems. ➤ Poor training. 	<p>Low VI, Rude Vice President</p> <ul style="list-style-type: none"> ➤ Role Expectations: <ul style="list-style-type: none"> ➤ As a senior executive, she doesn't know how to perform simple front desk tasks. ➤ How is she the VP with that attitude? ➤ She doesn't act like a VP. ➤ Probably get better service from someone lower in the chain of command.

Table 8: Proportion of Thoughts (Study 4).

Thoughts Category	Low VI Group			High VI Group		
	Receptionist Condition (%)	Vice President Condition (%)	<i>t</i>	Receptionist Condition (%)	Vice President Condition (%)	<i>t</i>
Self-Reference	9	15	-0.754	39	15	3.481**
Self-focused Indignation	9	10	-0.160	33	9	5.531***
Chiding	24	56	-3.466***	33	21	2.028
Role Expectation	13	36	-2.849***	3	12	-1.922
Avoidance	13	0	3.029**	1	15	-2.694**
External Attribution	36	2	7.877***	5	18	-2.620**

Notes: Proportion does not add up to 100 because thoughts may overlap across categories.

* $p < .10$, ** $p < .05$, *** $p < .01$.

Table 9: Correlations Between the Four Cultural Orientation Subscales and the Dependent Variables in Study 5.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. HI	-									
2. VI	.013	-								
3. HC	.040	-.041	-							
4. VC	.009	-.121*	.155*	-						
5. Satisfaction	.036	-.022	.065	.094	-					
6. Negative Affect	-.036	-.018	-.172**	-.122*	-.792**	-				
7. Hope of Power	.042	.532**	.006	-.082	-.190**	.153**	-			
8. Fear of Losing Power	.050	.530**	.073	-.119*	-.221**	.165**	.735**	-		
9. WTP ⁺ Status Products	-.009	.436**	.210**	-.063	-.279**	.168**	.533**	.647**	-	
10. WTP ⁺ Neutral Products	-.053	.004	.026	.112	.081	-.120*	.013	-.009	.019	-

⁺WTP = Willingness to pay, * $p < .05$ (2-tailed), ** $p < .01$ (2-tailed).

Table 10: Means, Standard Deviations, and Reliabilities by Cultural Group for Cultural Orientation Scores in Study 5.

Cultural group	HI			VI			HC			VC		
	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
Anglo Americans	5.43 _a	0.81	0.65	4.81 _b	1.4	0.86	4.74 _a	0.73	0.72	5.35 _a	0.88	0.70
Hispanics	5.22 _a	1.02	0.60	4.19 _a	1.21	0.68	5.86 _b	0.67	0.66	5.45 _a	1.32	0.60
Asians (East Asians/Asian Americans/Singaporeans)	5.30 _a	0.94	0.82	4.91 _b	1.11	0.80	4.92 _a	0.87	0.77	5.43 _a	1.07	0.76

Notes: Means not sharing the same subscript in the same column differ significantly ($p < .05$). Cultural orientation scores did not differ between Anglo Americans and Asians. This may be attributed to the fact that Asian participants completed the measures in English, hence making the independent self more salient among Asian participants (Trafimow, Silverman, Fan, & Law, 1997).

Table 11: Summary of the Three-way Effects for Ethnicity and SDO in Study 5 and Study 6.

Study	Dependent Variable	Interaction between Ethnicity, Service Rank, and Service Condition	Interaction between SDO, Service Rank, and Service Condition
5 (Hotel Scenario)	Affective Responses	-0.006	-
	Concern for Power	0.0240	-
	WTP - Status Products	0.005	-
	WTP - Neutral Products	-0.014	-
6 (Hospital Scenario)	Affective Response	-0.092	-0.044
	Concern for Power	0.045	-0.086
	WTP - Status Products	0.122	-0.123
	WTP - Neutral Products	0.028	-0.163

Notes: WTP = Willingness to pay; none of the interactions achieved statistical significance

Table 12: Means, Standard Deviations, and Reliabilities by Cultural Group for Cultural Orientation Scores and SDO scores in Study 6.

Cultural group	HI			VI			HC			VC			SDO		
	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
Anglo Americans	5.41 _a	1.00	0.79	4.81 _a	1.06	0.77	4.11 _a	0.87	0.68	5.22 _a	1.01	0.67	5.17 _a	0.55	0.66
Asians (East Asians/Asian Americans)	5.39 _a	1.06	0.78	5.00 _a	1.22	0.80	4.18 _a	0.82	0.77	5.30 _a	0.98	0.68	5.17 _a	0.65	0.73

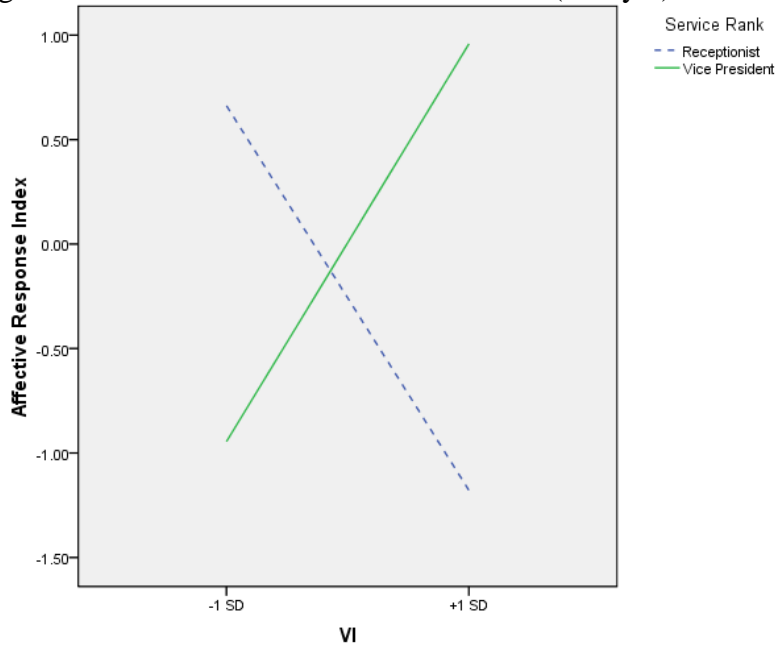
Notes: Means not sharing the same subscript in the same column differ significantly ($p < .05$).

Table 13: Correlations Between the Four Cultural Orientation Subscales and the Dependent Variables in Study 6.

		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1.	HI	-											
2.	VI	.088	-										
3.	HC	.040	.012	-									
4.	VC	.040	-.020	-.081	-								
5.	SDO	-.046	.441**	.089	.153*	-							
6.	Authority	-.097	.016	-.017	-.067	-.016	-						
7.	Satisfaction	.047	.100	-.030	-.020	.018	.196*	-					
8.	Negative Affect	-.098	-.071	.069	.069	.051	-.180*	-.817**	-				
9.	Hope of Power	-.172*	-.108	-.001	-.146	.063	.034	-.077	.074	-			
10.	Fear of Losing Power	-.165*	-.100	-.046	-.161*	.002	-.044	-.049	.020	.838**	-		
11.	WTP ⁺ Status Products	-.183*	-.086	-.002	-.182*	.014	-.036	-.140	.105	.787**	.843**	-	
12.	WTP ⁺ Neutral Products	-.157*	-.077	-.071	.002	.123	.011	.011	-.031	.019	-.018	.009	-

⁺WTP = Willingness to pay, * $p < .05$ (2-tailed), ** $p < .01$ (2-tailed)

Figure 1: Condition without Self-affirmation (Study 1).



Notes: The spotlight analysis at the +1 SD level of VI indicated that high VI participants reported less favorable affective responses toward a rude receptionist than a rude vice-president ($\beta = 2.136$, $t = 10.866$, $p < .001$). The spotlight analysis at -1 SD level of VI indicated that low VI participants reported more favorable affective responses toward the rude receptionist than the vice-president ($\beta = -1.607$, $t = -8.440$, $p < .001$).

ANOVA analyses are conducted for satisfaction and negative affect scores (see below). The designs are 2 (VI: +1SD vs. -1SD) x 2 (Service Rank: High vs. Low). Results from the post-hoc tests supported the pattern of results in the spotlight analyses presented in Figure 1 above. (Similar tables are presented for subsequent figures presented.)

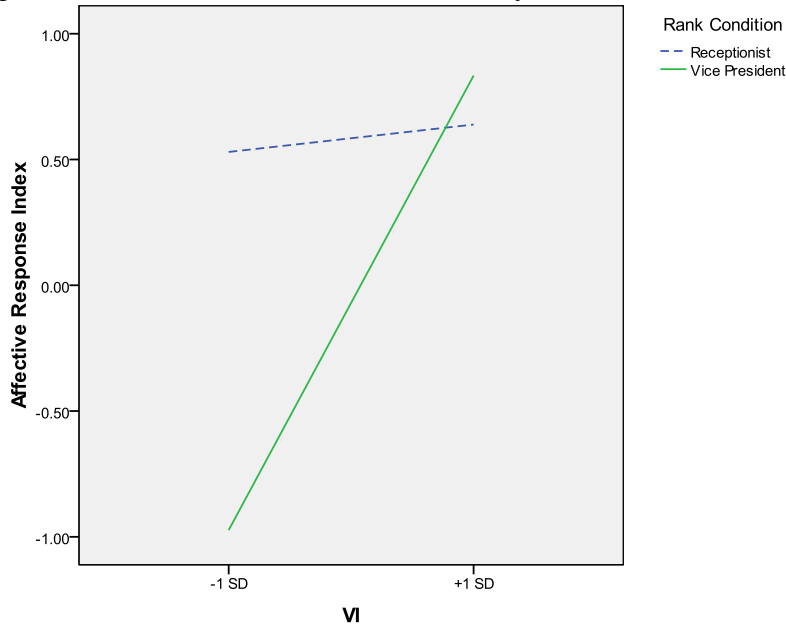
Satisfaction (without self-affirmation) - One-way ANOVA, $F(3,47) = 15.130$, $p = .001$.

	-1SD VI			+1SD VI		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Receptionist Cond.	2.23	0.904	$p < .05$	1.38	0.389	$p < .01$
Vice President Cond.	1.55	0.361		2.82	0.764	

Negative Affect (without self-affirmation) - One-way ANOVA, $F(3,47) = 80.995$, $p = .001$.

	-1SD VI			+1SD VI		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Receptionist Cond.	1.25	0.283	$p < .01$	3.02	0.533	$p < .01$
Vice President Cond.	2.85	0.316		1.38	0.241	

Figure 2: Self-affirmation Condition (Study 1).



Notes: The slope in the vice-president condition was significant ($\beta = .903$, $t = 13.693$, $p < .001$), but not the slope in the receptionist condition ($\beta = .054$, $t = .466$, $p = .645$). The spotlight analysis at +1 SD was not significant ($\beta = .054$, $t = .466$, $p = .645$). However, at -1 SD of VI, participants low in VI reported more favorable affective responses in the rude receptionist condition than in the rude vice-president condition ($\beta = -1.503$, $t = -9.122$, $p < .001$). In other words, the self-affirmation procedure did not affect participants low in VI. This was expected because those with low VI did not perceive others' rude behavior as a power threat (i.e., no threat to buffer via self-affirmation).

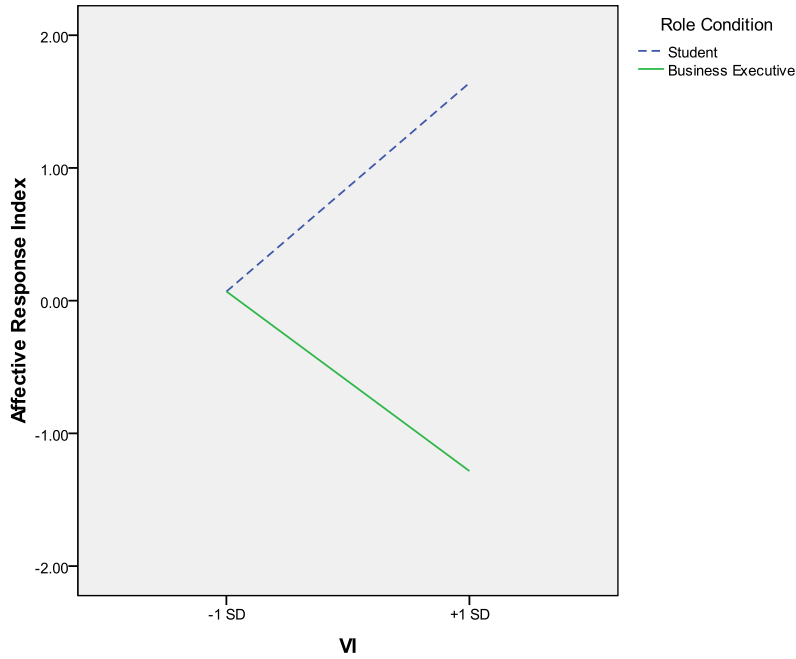
Satisfaction (Self-affirmation Condition) - One-way ANOVA, $F(3,62) = 19.003$, $p = .001$

	-1SD VI			+1SD VI		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Receptionist Cond.	2.18	0.751	$p < .05$	2.69	0.765	$p = .95$
Vice President Cond.	1.38	0.285		2.79	0.347	

Negative Affect (Self-affirmation Condition) - One-way ANOVA, $F(3,62) = 21.732$, $p = .001$

	-1SD VI			+1SD VI		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Receptionist Cond.	1.39	0.409	$p < .01$	1.71	0.532	$p = .65$
Vice President Cond.	2.73	0.465		1.53	0.489	

Figure 3: Social Rank Manipulation Study (Study 2).



Notes: The spotlight analysis at +1 SD confirmed that high VI participants felt less favorable toward the desk manager in the executive role than in the student role ($\beta = -2.924$, $t = -22.431$, $p < .001$). However, the spotlight analysis at -1 SD was not significant ($\beta = .001$, $t = .015$, $p = .989$), indicating that the affective responses reported by low VI participants was independent of the social rank they adopted. Notably, the interaction plot did not replicate the cross-over pattern shown previously in study 1 (see Figure 1). This could be due to the way rank was manipulated in the current study. Previously, in study 1, low VI participants might have reported their affective responses based on the service standards expected from someone with high versus low rank, i.e., low VI participants might think that a vice-president should be better trained, hence they expected better services from the vice-president than the receptionist. However, in study 2, such expectations did not occur for low VI participants because the rank of the rude service person was held constant. This speculation was supported when participants reported their thoughts regarding role-expectations of the service person in study 4, see notes for Figure 10.

Satisfaction: One-way ANOVA, $F(3,21) = 71.000$, $p = .001$.

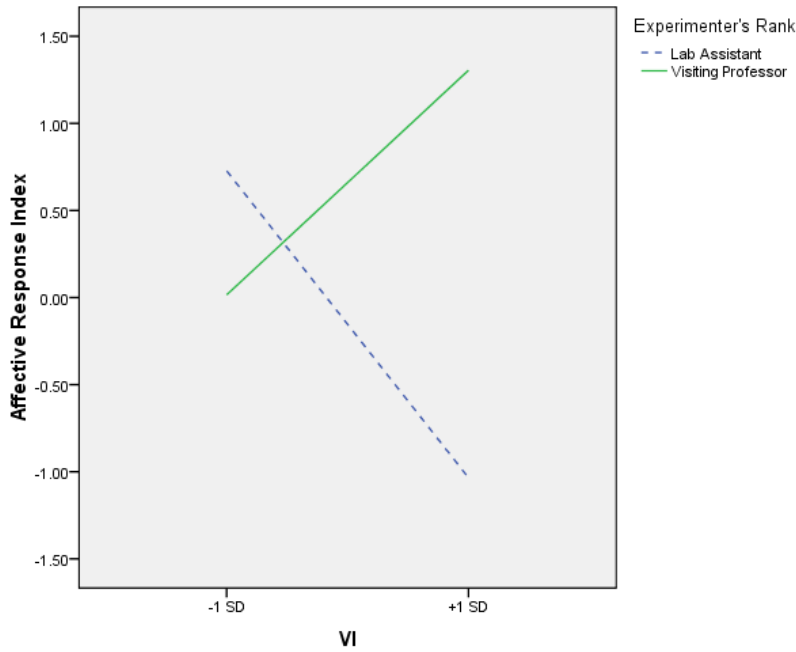
	-1SD VI			+1SD VI		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Student Role	1.89	0.137	$p = .94$	3.09	0.399	$p < .01$
Executive Role	2.00	0.250		1.07	0.122	

Table for Negative Affect, Social Rank Manipulation Study (cont.).

Negative Affect: One-way ANOVA, $F(3,21) = 91.551$, $p = .001$.

	-1SD VI			+1SD VI		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Student Role	2.25	0.198	$p = .91$	1.28	0.229	$p < .01$
Executive Role	2.35	0.271		3.29	0.236	

Figure 4: Affective Response Index in Non-scenario Based Study 3.



Notes: The spotlight analysis was significant at the +1 SD ($\beta = 2.339$, $t = 9.915$, $p < .001$), indicating that participants with low VI reported less favorable affective responses in the Lab Assistant condition than the Visiting Professor condition. The spotlight analysis at the -1 SD indicated that participants with low VI reported more favorable affective responses in the Lab Assistant condition than the Visiting Professor condition ($\beta = -.711$, $t = -2.559$, $p = .019$). This mirrored the cross-over pattern of results in earlier studies (e.g., see Figure 1 in study 1).

Satisfaction

One-way ANOVA, $F(3,38) = 10.363$, $p = .001$.

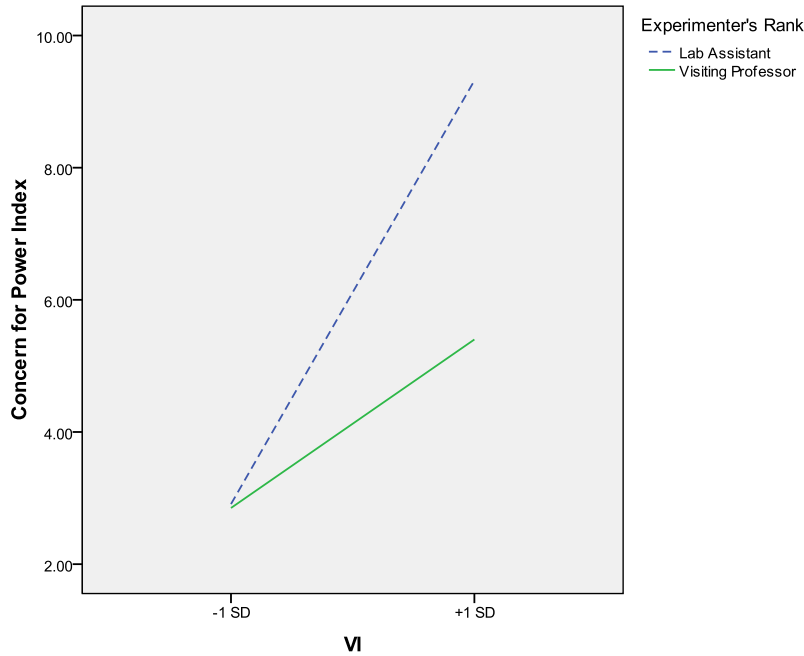
	-1SD VI			+1SD VI		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Lab Assistant	3.27	0.647	$p = .293$	2.09	0.831	$p < .01$
Visiting Professor	2.80	0.422		3.50	0.527	

Negative Affect

One-way ANOVA, $F(3,38) = 28.141$, $p = .001$.

	-1SD VI			+1SD VI		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Lab Assistant	2.47	1.08	$p = .077$	4.94	0.395	$p < .01$
Visiting Professor	3.47	1.36		1.40	0.516	

Figure 5: Concern for Power Index in Non-scenario Based Study 3.



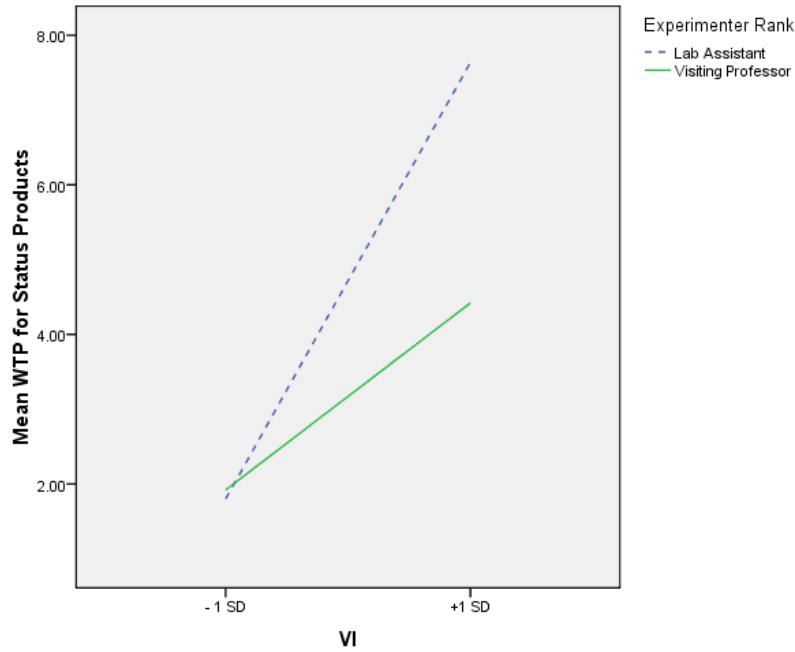
Notes: The spotlight analysis at +1SD high VI participants' concern for power in the Lab Assistant condition was higher than in the Visiting Professor condition ($\beta = -3.918$, $t = -3.685$, $p = .002$), implying that those with high VI were more concerned about their power and feeling more threatened when mistreated by someone with low (versus high) rank. The spotlight analysis was not significant at the -1 SD level ($\beta = -.059$, $t = -.101$, $p = .920$), implying that low VI participants did not interpret the experimenter's negative behavior as a power threat, hence the MMG measure did not record increased power concerns ($\beta = -3.918$, $t = -3.685$, $p = .002$)

Concern for Power Index

One-way ANOVA, $F(3,38) = 25.932$, $p = .001$.

	-1SD VI			+1SD VI		
	Concern for Power Index	SD	Post Hoc	Concern for Power Index	SD	Post Hoc
Lab Assistant	2.91	1.500	$p = .91$	9.32	2.461	$p < .01$
Visiting Professor	2.85	1.133		5.40	2.412	

Figure 6: Willingness to Pay for Status Products in Non-scenario Based Study 3.



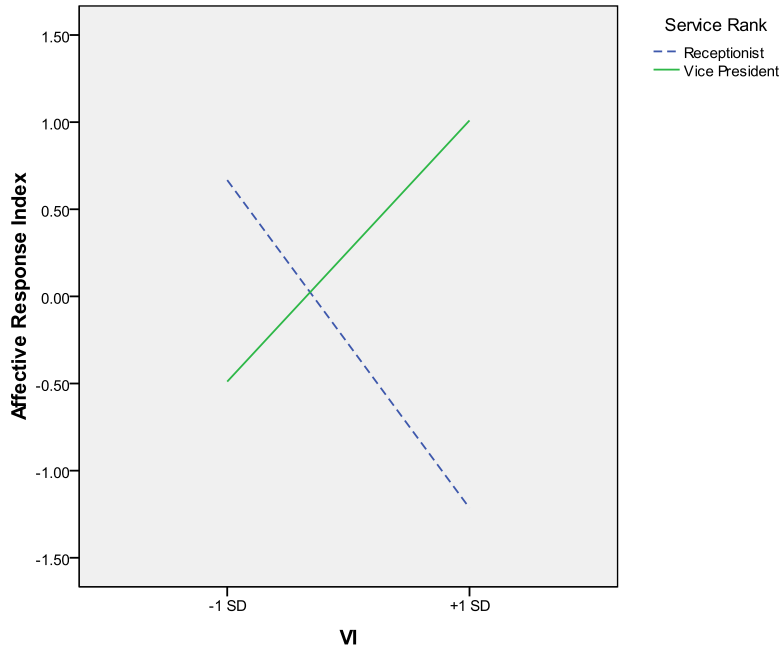
Notes: The spotlight analysis at +1 SD showed that high VI participants reported greater willingness to pay for status products in the Lab Assistant than the Visiting Professor condition ($\beta = -3.216$, $t = -2.711$, $p = .014$), signaling that high VI participants felt more threatened by the lab assistant, hence their greater desire to compensate by acquiring status products. The spotlight analysis was not significant at -1 SD ($\beta = .120$, $t = .415$, $p = .683$), indicating that the willingness to pay for status products for those low in VI was not moderated by service rank. In addition, the lower willingness to pay for status products among those low (versus high) in VI also implied that they were not interpreting the experimenter's negative behavior as a power threat; hence there was low motivation to acquire status products.

Willingness to pay for status products (STATSWTP)

One-way ANOVA, $F(3,38) = 20.796$, $p = .001$.

	-1SD VI			+1SD VI		
	STATSWTP	SD	Post Hoc	STATSWTP	SD	Post Hoc
Lab Assistant	1.80	0.709	$p = .98$	7.64	3.182	$p = .02$
Visiting Professor	1.92	0.605		4.42	2.077	

Figure 8: Affective Response Index in Cognitive Response Study 4.



Notes: The slopes were significant in the receptionist condition ($\beta = -.615$, $t = -4.832$, $p < .001$) and in the vice-president condition ($\beta = .467$, $t = 4.561$, $p < .001$). Spotlight analyses were significant at the +1 SD level ($\beta = 2.224$, $t = 5.986$, $p < .001$), and at the -1 SD level as well ($\beta = -1.157$, $t = -5.254$, $p < .001$), indicating that high (low) VI participants reported more (less) favorable affective responses in the rude receptionist than the rude vice-president condition. These results replicated those in the previous studies.

Satisfaction.

One-way ANOVA, $F(3,28) = 9.906$, $p = .001$.

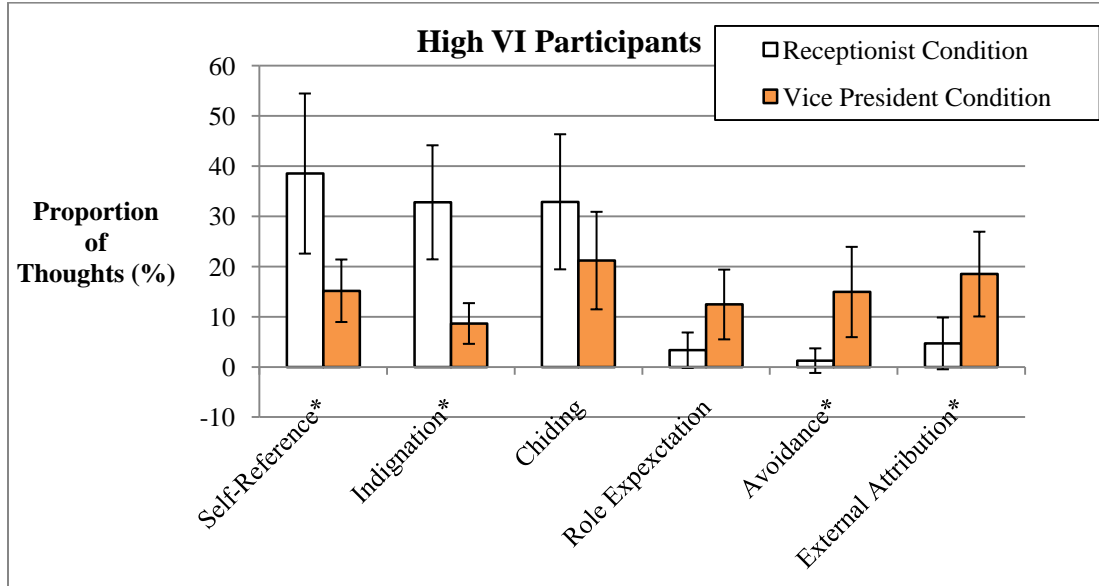
	-1SD VI			+1SD VI		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Receptionist Cond.	2.80	0.506	$p = .07$	1.94	0.491	$p < .01$
Vice President Cond.	2.17	0.225		3.26	0.830	

Negative Affect.

One-way ANOVA, $F(3,47) = 80.995$, $p = .001$.

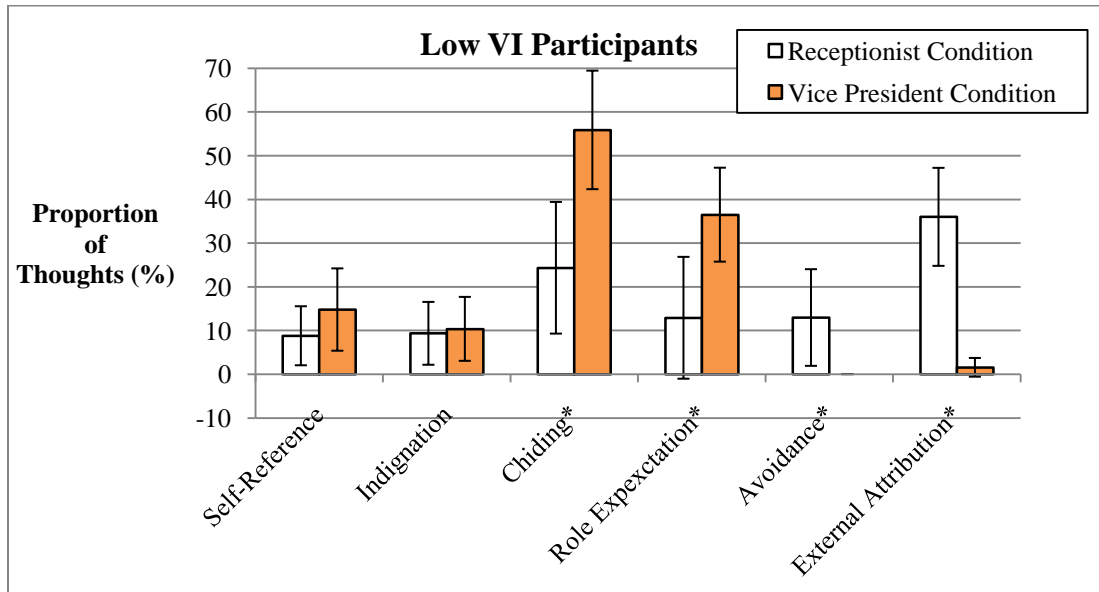
	-1SD VI			+1SD VI		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Receptionist Cond.	2.25	0.217	$p < .01$	3.59	0.314	$p < .01$
Vice President Cond.	3.00	0.429		2.24	0.283	

Figure 9: Cognitive Responses for High VI Participants (Study 4).



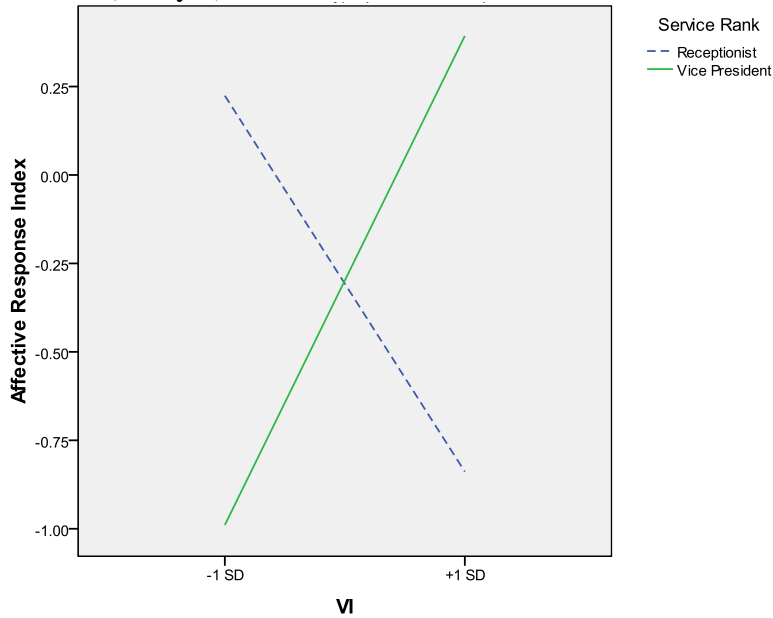
Notes: Error bars represent standard error at 95% confidence interval, $*p < .05$.

Figure 10: Cognitive Responses for Low VI Participants (Study 4).



Notes: Error bars represent standard error at 95% confidence interval, $*p < .05$. The higher proportion of thoughts regarding role expectation in the vice-president condition supported the speculation (see notes for Figure 3) that low VI participants evaluated the service encounter based on the seniority of the service person – i.e., they expected better service from a service person with higher rank.

Figure 11: VI by Rank Interaction on Affective Response Index in Rude Service Condition (Study 5).



Note: The spotlight analyses at +1 SD of VI showed that high VI participants reported less favorable affective responses toward a rude receptionist than a rude vice-president ($\beta = .616$, $t = 5.248$, $p < .001$). The spotlight analysis at -1SD of VI indicated that participants low in VI reported more favorable affective responses towards a rude receptionist than a rude vice-president ($\beta = -.607$, $t = -5.517$, $p < .001$).

Satisfaction (Rude Condition)

One-way ANOVA, $F(3,133) = 20.575$, $p < .001$.

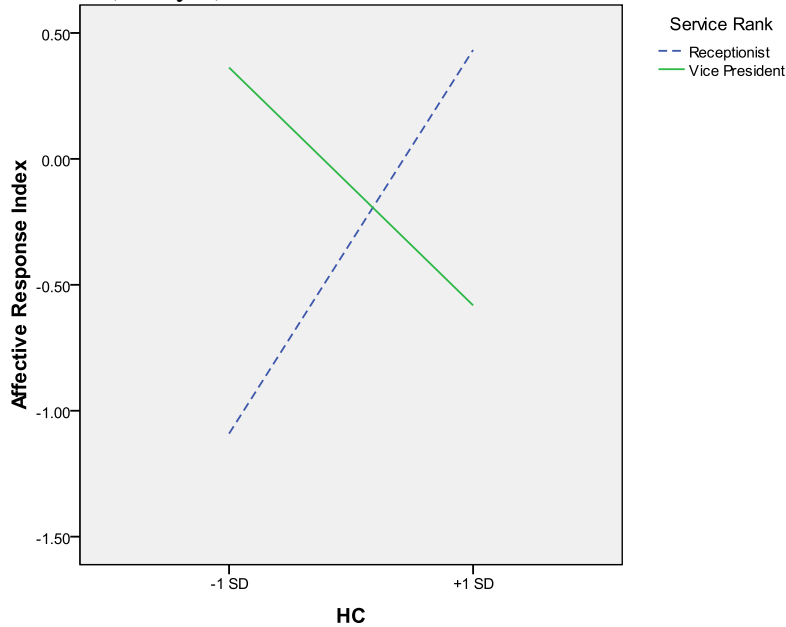
	-1SD VI			+1SD VI		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Receptionist Cond.	2.99	0.994	$p < .01$	1.80	1.164	$p < .01$
Vice President Cond.	1.74	0.805		3.21	0.934	

Negative Affect (Rude Condition)

One-way ANOVA, $F(3,133) = 13.230$, $p < .001$.

	-1SD VI			+1SD VI		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Receptionist Cond.	2.11	0.685	$p < .01$	2.74	.880	$p < .01$
Vice President Cond.	2.87	0.619		1.97	0.609	

Figure 12: HC by Rank Interaction on Affective Response Index in Rude Service Condition (Study 5).



Note: A spotlight analysis at +1 SD showed that high HC participants felt less favorable toward the rude vice-president than the rude receptionist ($\beta = -.507$, $t = -3.505$, $p = .001$), indicating that high HC individuals would respond more negatively when someone of high (versus low) rank displayed negative behavior because those with power are expected to be benevolent and helpful toward others. The spotlight analysis at -1SD indicated that low HC participants reported less favorable affective responses in the rude receptionist condition than the rude hotel vice-president condition ($\beta = .727$, $t = 6.655$, $p < .001$).

Satisfaction (Rude Condition)

One-way ANOVA, $F(3,133) = 9.736$, $p < .001$.

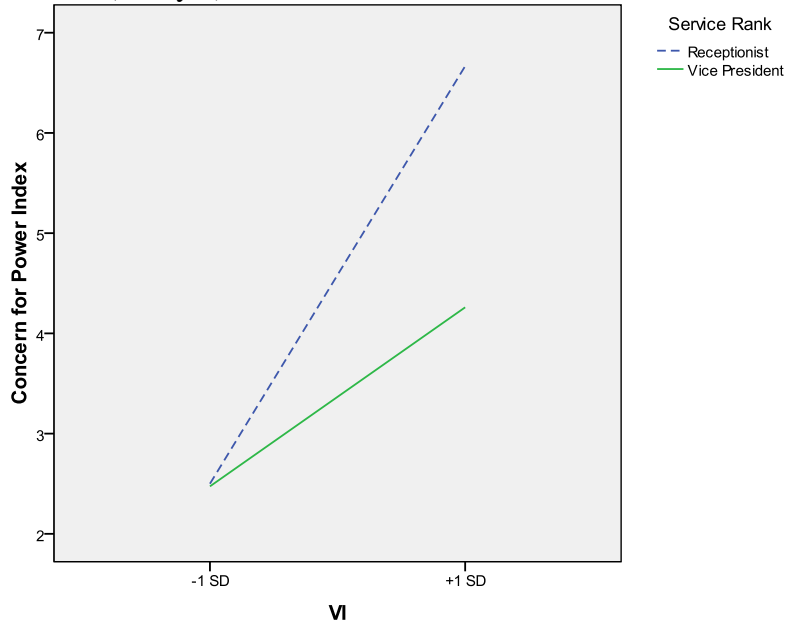
	-1SD HC			+1SD HC		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Receptionist Cond.	1.69	0.916	$p < .01$	2.70	1.274	$p = .085$
Vice President Cond.	3.13	1.053		2.12	1.016	

Negative Affect (Rude Condition)

One-way ANOVA, $F(3,133) = 8.193$, $p < .001$.

	-1SD HC			+1SD HC		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Receptionist Cond.	2.93	0.616	$p < .01$	2.18	0.874	$p = .059$
Vice President Cond.	2.07	0.829		2.60	0.632	

Figure 13: VI by Rank Interaction on Concern for Power Index in Rude Service Condition (Study 5).



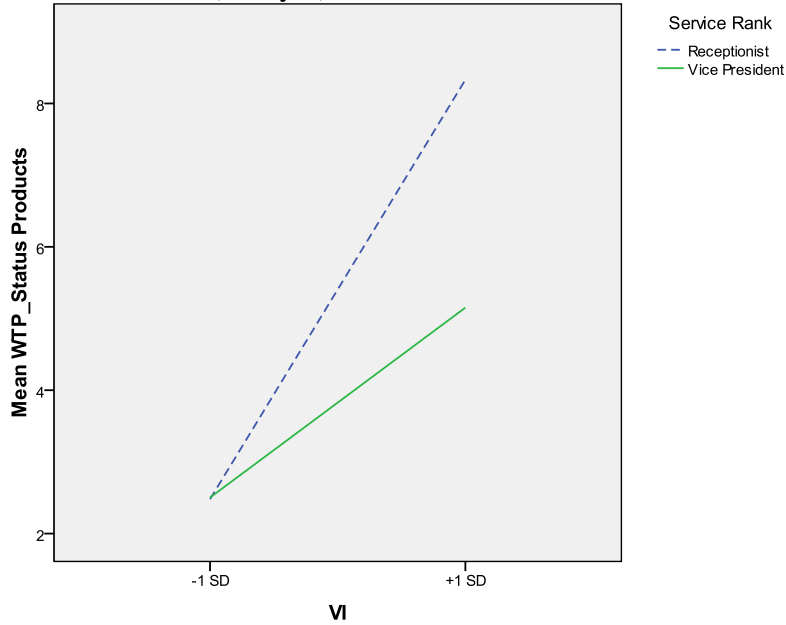
Note: A spotlight analysis at +1 SD showed that high VI participants' power concerns were higher in the rude receptionist than vice-president condition, indicating that they were experiencing greater power threat when treated disrespectfully by a low-ranking person ($\beta = -1.203$, $t = -7.752$, $p < .001$). The spotlight analysis at -1SD did not reveal any difference in the concern for power index between the two service ranks ($\beta = -.013$, $t = -.116$, $p = .909$).

Concern for Power Index (Rude Condition)

One-way ANOVA, $F(3,88) = 97.461$, $p < .001$.

	-1SD VI			+1SD VI		
	Concern for Power Index	SD	Post Hoc	Concern for Power Index	SD	Post Hoc
Receptionist Cond.	2.50	0.786	$p = .91$	6.67	1.545	$p < .01$
Vice President Cond.	2.47	0.589		4.26	0.561	

Figure 14: VI by Rank Interaction on Willingness to Pay for Status Products in Rude Service Condition (Study 5).



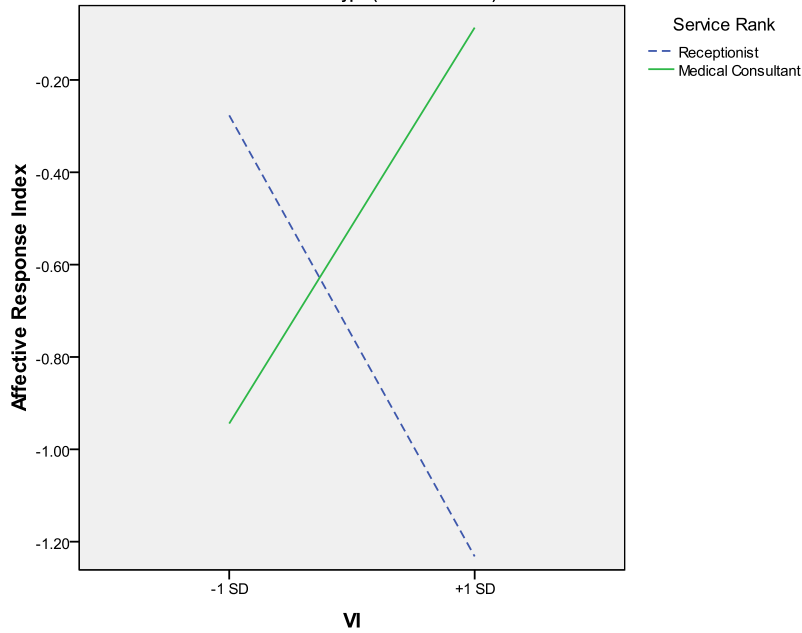
Notes: The spotlight analysis at +1 SD showed that those with high VI reported higher willingness to pay for status products in the rude receptionist (versus vice-president) condition ($\beta = -1.590$, $t = -12.502$, $p < .001$) suggesting that they felt more threatened by the rude receptionist (than the hotel vice-president) and hence more motivated to acquire status products. The spotlight analysis at -1 SD did not yield significant effects ($\beta = .011$, $t = .202$, $p = .841$), indicating that service rank did not influence low VI participants' motivation to acquire status products.

Willingness to Pay for Status Products (Rude Condition)

One-way ANOVA, $F(3,90) = 40.702$, $p < .001$.

	-1SD VI			+1SD VI		
	STATSWTP	SD	Post Hoc	STATSWTP	SD	Post Hoc
Receptionist Cond.	2.35	0.489	$p = .96$	8.56	1.121	$p < .01$
Vice President Cond.	2.46	0.509		5.14	0.351	

Figure 15: VI by Rank Interaction on Affective Response Index in Rude Service Condition (Study 6).



Notes: A spotlight analysis at +1 SD showed that participants high in VI reported less favorable affective responses toward a rude receptionist than a rude medical consultant ($\beta = .573$, $t = 2.958$, $p = .010$); however, at -1 SD, low VI participants' affective responses did not differ significantly across the two rank conditions ($\beta = -.334$, $t = -1.502$, $p = .154$).

Satisfaction (Rude Condition)

One-way ANOVA, $F(3,32) = 4.083$, $p = .016$.

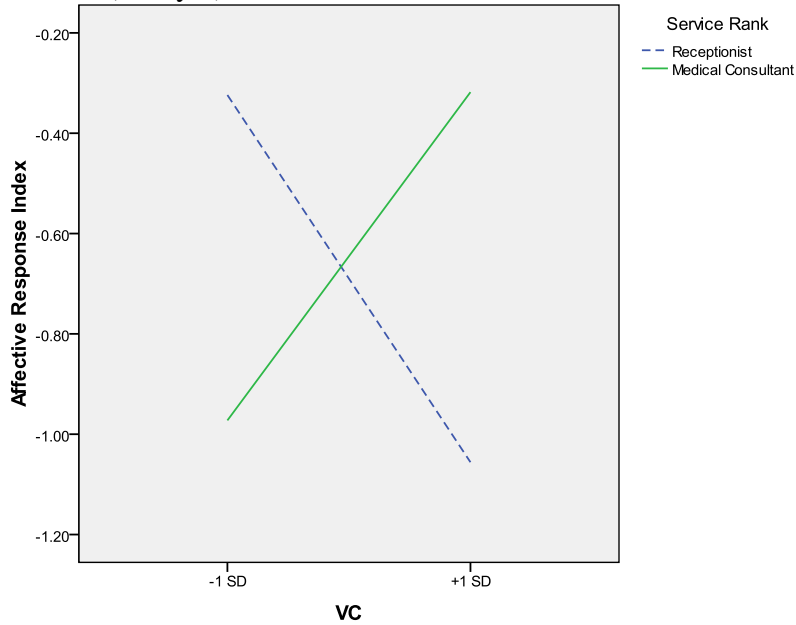
	-1SD VI			+1SD VI		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Receptionist Cond.	2.89	0.779	$p = .166$	1.92	0.886	$p = .049$
Medical Consultant Cond.	2.03	0.809		3.00	0.667	

Negative Affect (Rude Condition)

One-way ANOVA, $F(3,32) = 2.698$, $p = .064$.

	-1SD VI			+1SD VI		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Receptionist Cond.	2.18	0.349	$p = .803$	2.69	0.536	$p = .050$
Medical Consultant Cond.	2.41	0.624		2.03	0.271	

Figure 16: VC by Rank Interaction on Affective Response Index in Rude Service Condition (Study 6).



Notes: The spotlight analysis at +1 SD showed that participants high in VC reported more favorable affective responses toward the rude receptionist than the rude medical consultant ($\beta = .369$, $t = 2.942$, $p = .006$). At the -1 SD level, participants with low VC scores reported more favorable affective responses toward the rude receptionist than the rude medical consultant condition, but the effects were marginal ($\beta = -.324$, $t = -1.969$, $p = .063$).

Satisfaction (Rude Condition)

One-way ANOVA, $F(3,51) = 3.900$, $p = .014$.

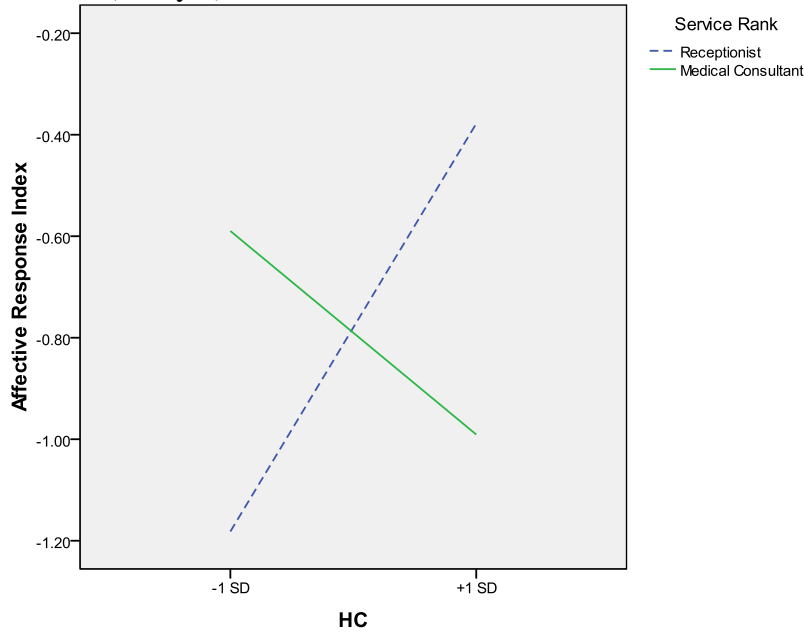
	-1SD VC			+1SD VC		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Receptionist Cond.	2.80	0.834	$p = .118$	2.04	0.687	$p = .071$
Medical Consultant Cond.	2.07	0.798		2.78	0.741	

Negative Affect (Rude Condition)

One-way ANOVA, $F(3,51) = 4.358$, $p = .009$.

	-1SD VC			+1SD VC		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Receptionist Cond.	2.18	0.388	$p = .293$	2.56	0.390	$p = .016$
Medical Consultant Cond.	2.47	0.397		2.13	0.327	

Figure 17: HC by Rank Interaction on Affective Response Index in Rude Service Condition (Study 6).



Notes: The spotlight analysis at +1 SD of HC showed that participants high in HC reported less favorable affective responses toward the rude medical consultant than the rude receptionist ($\beta = .296$, $t = 1.887$, $p = .073$). These results were similar to study 5. At the -1 SD level, low HC participants reported less favorable affective responses toward the receptionist than the medical consultant, however, the difference was marginal ($\beta = -.306$, $t = -2.025$, $p = .056$).

Satisfaction (Rude Condition)

One-way ANOVA, $F(3,45) = 2.816$, $p = .051$.

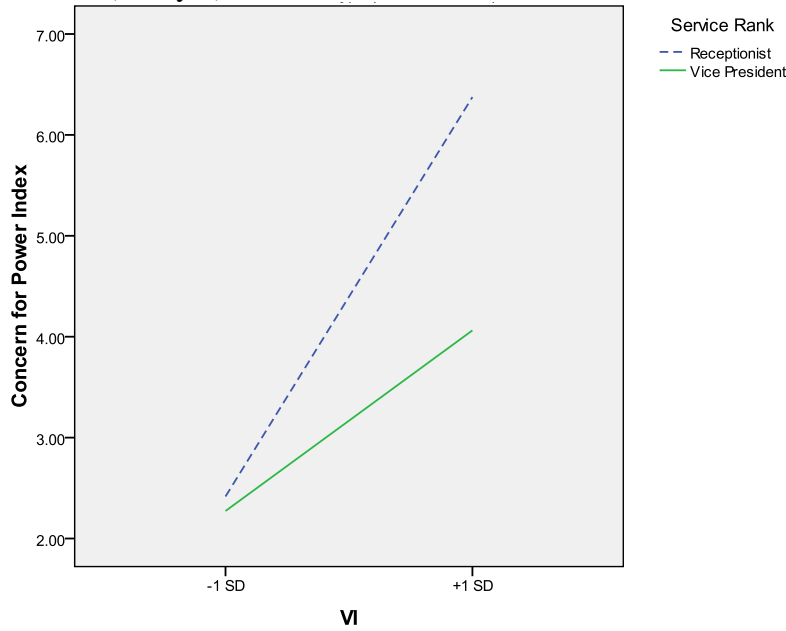
	-1SD HC			+1SD HC		
	Satisfaction	SD	Post Hoc	Satisfaction	SD	Post Hoc
Receptionist Cond.	1.92	0.552	$p = .343$	2.73	0.681	$p = .050$
Medical Consultant Cond.	2.42	0.804		2.08	0.807	

Negative Affect (Rude Condition)

One-way ANOVA, $F(3,45) = 2.546$, $p = .069$.

	-1SD HC			+1SD HC		
	Negative Affect	SD	Post Hoc	Negative Affect	SD	Post Hoc
Receptionist Cond.	2.63	0.336	$p = .162$	2.10	0.271	$p = .080$
Medical Consultant Cond.	2.25	0.589		2.70	0.439	

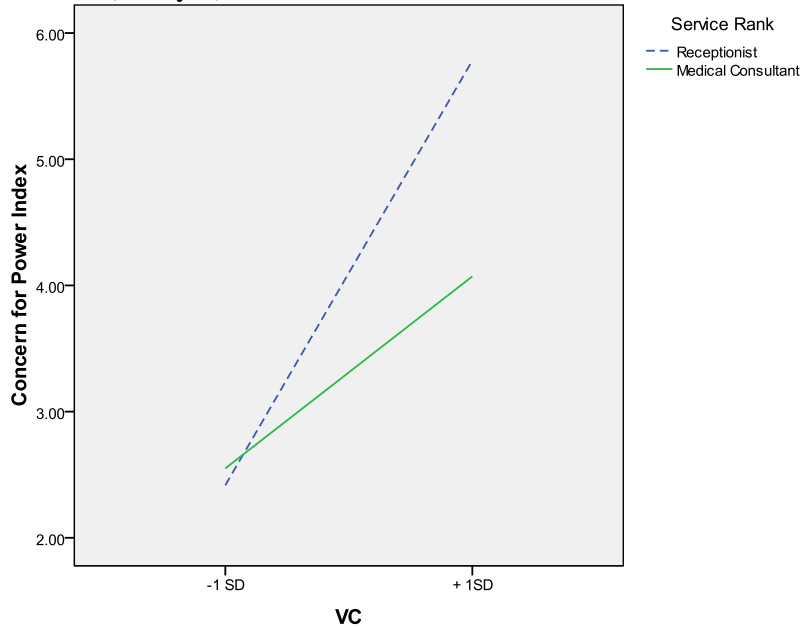
Figure 18: VI by Rank Interaction on Concern for Power Index in Rude Service Condition (Study 6).



Notes: The spotlight analysis at +1 SD revealed that power concerns for participants high in VI were significantly higher in the rude receptionist than in the rude medical consultant condition ($\beta = -1.156$, $t = -22.458$, $p < .001$), implying that high VI participants were more concerned about their power when they were mistreated by someone of low (versus high) rank. The spotlight analysis at -1 SD level of VI showed no differences in power concerns between the two service rank conditions for participants with low VI ($\beta = -.072$, $t = -.453$, $p = .657$).

Concern for Power Index (Rude Condition)						
One-way ANOVA, $F(3,32) = 135.016$, $p < .001$.						
	-1SD VI			+1SD VI		
	Concern for Power Index	SD	Post Hoc	Concern for Power Index	SD	Post Hoc
Receptionist Cond.	2.41	0.102	$p = .931$	6.38	0.231	$p < .001$
Medical Consultant Cond.	2.27	0.261		4.06	0.177	

Figure 19: VC by Rank Interaction on Concern for Power Index in Rude Service Condition (Study 6).



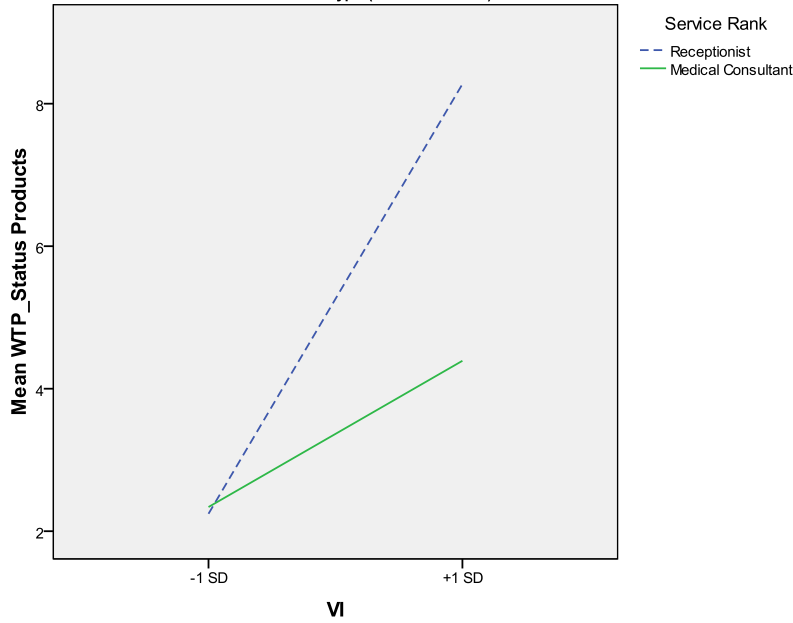
Notes: The spotlight analysis at +1 SD of VC showed that those with high VC also felt more concerned about their power in the receptionist condition than in the medical consultant condition ($\beta = -.855$, $t = -2.967$, $p = .006$). The spotlight analysis at -1 SD level of VC showed no differences in power concerns between the two service rank conditions for participants with low VC ($\beta = -.067$, $t = .248$, $p = .807$).

Concern for Power Index (Rude Condition)

One-way ANOVA, $F(3,51) = 16.092$, $p < .001$.

	-1SD VC			+1SD VC		
	Concern for Power Index	SD	Post Hoc	Concern for Power Index	SD	Post Hoc
Receptionist Cond.	2.41	1.36	$p = .996$	5.78	2.05	$p = .012$
Medical Consultant Cond.	2.55	1.11		4.07	0.703	

Figure 20: VI by Rank Interaction on Willingness to Pay for Status Products in Rude Service Condition (Study 6).



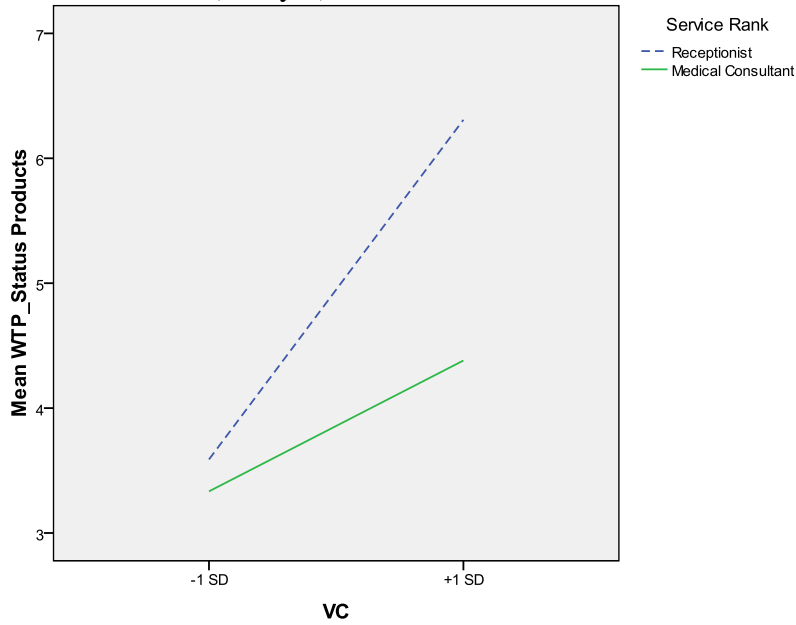
Notes: The spotlight analysis at +1 SD level of VI showed that those with high VI reported higher willingness to pay for status products when offended by the receptionist versus medical consultant ($\beta = -1.942$, $t = -13.404$, $p < .001$), indicating that these participants perceived more threat when a receptionist was rude than when a medical consultant was rude. This pattern did not emerged for participants low in VI as the spotlight analysis at -1 SD was not significant ($\beta = .047$, $t = .557$, $p = .586$).

Willingness to Pay for Status Products (Rude Condition)

One-way ANOVA, $F(3,32) = 293.513$, $p < .001$.

	-1SD VI			+1SD VI		
	STATSWTP	SD	Post Hoc	STATSWTP	SD	Post Hoc
Receptionist Cond.	2.24	0.381	$p = .978$	8.28	0.819	$p < .001$
Medical Consultant Cond.	2.34	0.310		4.39	0.024	

Figure 21: VC by Rank Interaction on Willingness to Pay for Status Products in Rude Service Condition (Study 6).



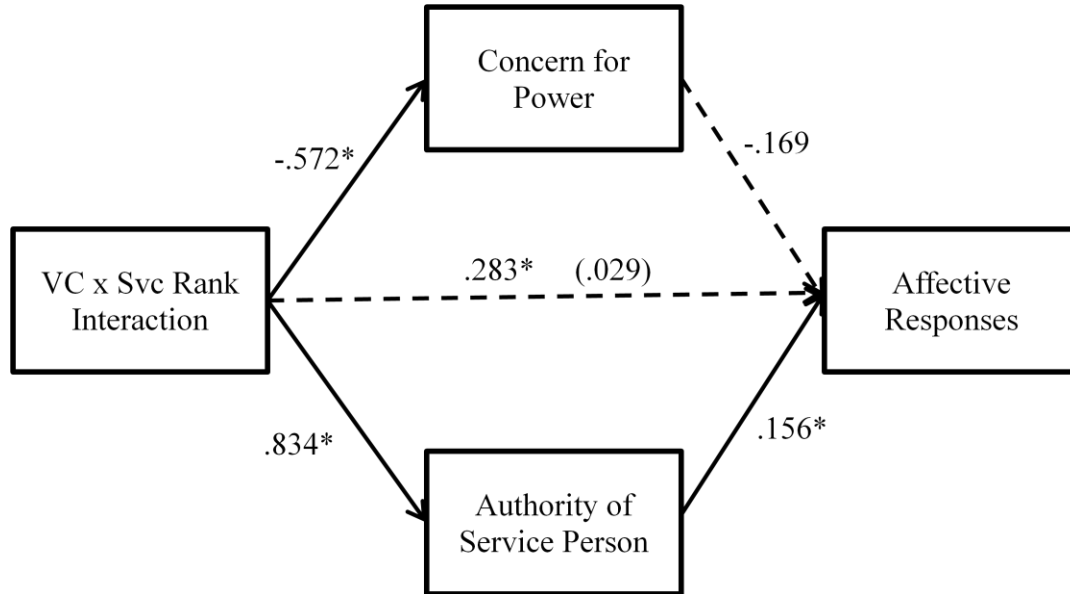
Notes: The spotlight analysis at +1 SD level showed that participants high in VC were more willing to pay for status products in the rude clinic receptionist than the rude medical consultant ($\beta = -.964$, $t = -2.700$, $p = .012$), indicating that these participants felt threatened by the rude clinic receptionist. This effect was not replicated for participants low in VC as the spotlight analysis at -1 SD level was not significant ($\beta = -.128$, $t = -.406$, $p = .689$).

Willingness to Pay for Status Products (Rude Condition)

One-way ANOVA, $F(3,51) = 8.089$, $p < .001$.

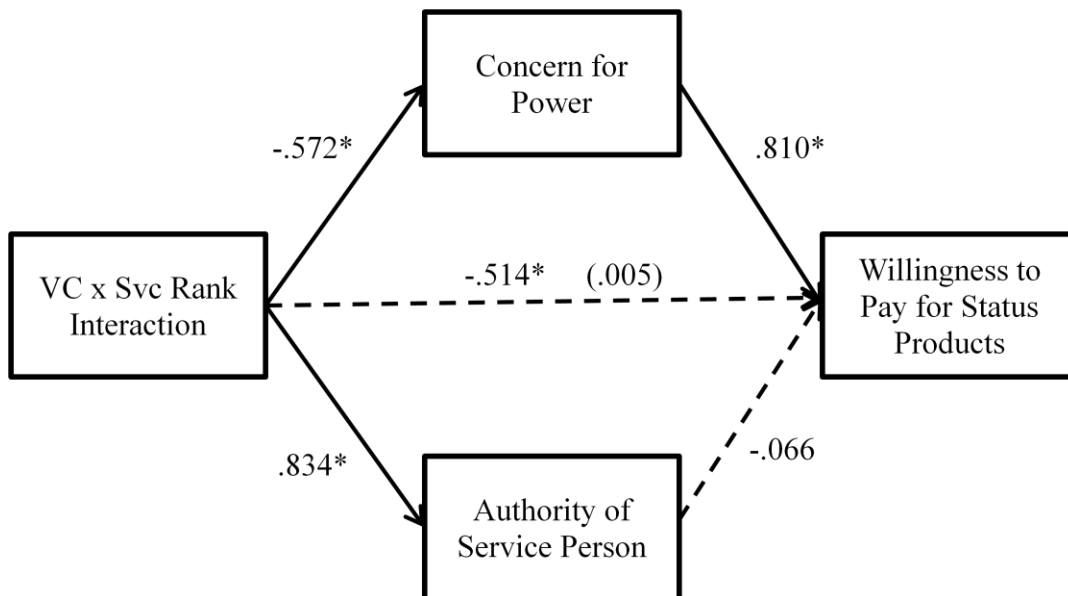
	-1SD VC			+1SD VC		
	STATSWTP	SD	Post Hoc	STATSWTP	SD	Post Hoc
Receptionist Cond.	3.59	1.831	$p = .987$	6.31	2.558	$p = .022$
Medical Consultant Cond.	3.33	0.836		4.38	0.802	

Figure 22: Double Mediation for Affective Response Index (Study 6).



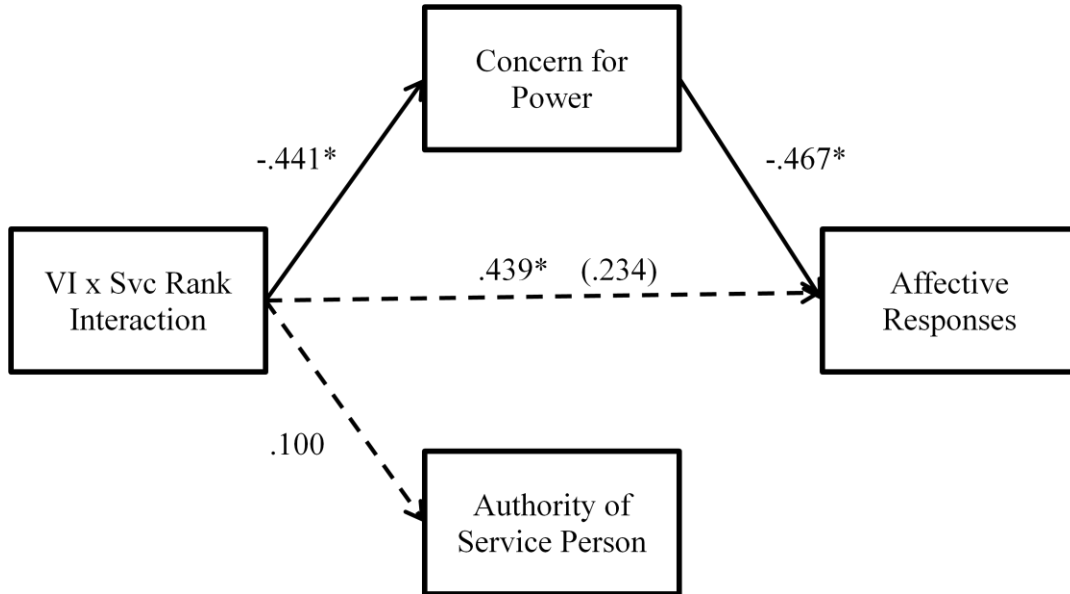
Notes: * $p < .05$; the regression coefficient between VC x Svc Rank and Affective Responses after controlling for both mediators is in parentheses.

Figure 23: Double Mediation for Willingness to Pay for Status Products (Study 6).



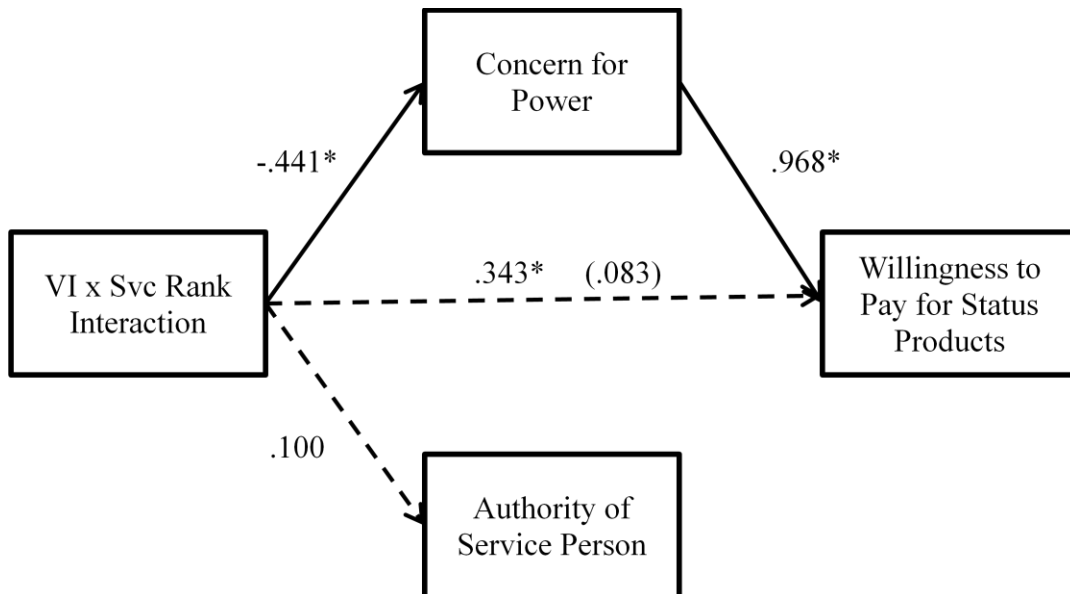
Notes: * $p < .05$; the regression coefficient between VC x Svc Rank and Willingness to Pay for Status Products after controlling for both mediators is in parentheses.

Figure 24: Simple Mediation for Affective Response Index (Study 6).



Notes: * $p < .05$; the regression coefficient between VC x Svc Rank and Affective Responses after controlling for both mediators is in parentheses; Sobel's test: $z = 2.506$, $p = .012$.

Figure 25: Simple Mediation for Willingness to Pay for Status Products (Study 6).



Notes: * $p < .05$; the regression coefficient between VC x Svc Rank and Affective Responses after controlling for both mediators is in parentheses; Sobel's test: $z = -3.015$, $p = .003$.

AUTHORS' BIOGRAPHY

Jimmy graduated from the Nanyang Technological University (NTU) of Singapore with a bachelor business degree in Marketing in 1997. Upon his graduation, he worked two years for Ranoda Electronics as a Sales Engineer within the Asia Pacific region, and four years for the pharmaceutical division of Johnson and Johnson (J&J) Singapore Private Limited. He left his position as sales-manager in J&J in 2003 to pursue his MBA in the Nanyang Business School. During the same time, he taught on a part-time basis for NTU in courses such as Consumer Behavior, Research Methods, and Integrated Marketing Communications. Upon graduating from his MBA class with honors, he joined the Marketing PhD program here in the University of Illinois at Urbana Champaign to further pursue his interest in research. Following his completion of his PhD degree, he will join the Marketing Department in Monash University, Melbourne, Australia as an Assistant Professor.