

CONSUMER SENSE OF POWER AND MESSAGE ASSERTIVENESS
IN FOOD ADVERTISING

by

XIN CINDY WANG

A DISSERTATION

Presented to the Department of Marketing
and the Graduate School of the University of Oregon
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

June 2017

DISSERTATION APPROVAL PAGE

Student: Xin Cindy Wang

Title: Consumer Sense of Power and Message Assertiveness in Food Advertising

This dissertation has been accepted and approved in partial fulfillment of the requirements for the Doctor of Philosophy degree in the Department of Marketing by:

Jiao Zhang	Chairperson
Lynn Kahle	Core Member
Hong Yuan	Core Member
Sara Hodges	Institutional Representative

and

Scott L. Pratt	Dean of the Graduate School
----------------	-----------------------------

Original approval signatures are on file with the University of Oregon Graduate School.

Degree awarded June 2017

© 2017 Xin Cindy Wang

DISSERTATION ABSTRACT

Xin Cindy Wang

Doctor of Philosophy

Department of Marketing

June 2017

Title: Consumer Sense of Power and Message Assertiveness in Food Advertising

Scant research on food advertising and purchase decisions has examined the moderating role of social constructs such as power. In this research, I investigate how consumers' sense of power influences the persuasiveness of message assertiveness in food advertising. The agentic–communal framework of sense of power and findings suggests that high-power individuals are more likely to adopt and be receptive to strong, competent information and communication strategies than low-power individuals in interpersonal communication. In this research, I propose a new theoretical framework that predicts how message recipients' sense of power enables or weakens the persuasiveness of the assertive message such as, “You must buy [the name of the advertised food].”

More specifically, I looked at the likelihood of purchasing ‘vice’ versus ‘virtue’ foods after viewing the ad. I argue that for high-power individuals, an assertive tone in the food ads would increase the purchase of a vice food and decrease the purchase intent of a virtue food. However, for low-power individuals, an assertive tone in the food ads would decrease the purchase of a vice food but increase the purchase intent of a virtue food. Low power is less congruent with assertive messages but more congruent with non-assertive messages.

Across three studies, I provide empirical support for the predictions and the congruence mechanism. The results show that high-power consumers process assertive

messages more fluently than non-assertive messages. Low-power consumers process assertive messages less fluently than non-assertive messages. Processing fluency increases the relative focus on tastiness in food evaluation, but process disfluency increases the relative focus on healthiness in food evaluation. The findings of this research have important implications for developing effective marketing communications and promoting healthy eating.

CURRICULUM VITAE

NAME OF AUTHOR: Xin Cindy Wang

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

University of Oregon, Eugene
Oklahoma State University, Stillwater
Qingdao University, Qingdao

DEGREES AWARDED:

Doctor of Philosophy, Marketing, 2017, University of Oregon
Master of Business Administration, 2012, Oklahoma State University
Bachelor of Arts, English, 2008, Qingdao University

AREAS OF SPECIAL INTEREST:

Consumer Sense of Power
Social Influence in Consumption Contexts
Marketing Communication
Cross-cultural Consumer Beliefs and Behavior

PROFESSIONAL EXPERIENCE:

Consultant, Triton Energy, 2010

Supply Chain Management Specialist, A.P. Moller–Maersk Group, 2008

GRANTS, AWARDS, AND HONORS:

AMA-Sheth Doctoral Consortium Fellow, 2016

Robert Mittelstaedt Doctoral Symposium Fellow, 2015

Robin & Roger Best Research Award, 2016

Robin & Roger Best Research Award, 2015

Robin & Roger Best Research Award, 2014

PUBLICATIONS:

Reich, B., & Wang, X. (2015). And justice for all: Revisiting the Global Belief in a Just World Scale. *Personality and Individual Differences*, 78, 68-76.
doi:10.1016/j.paid.2015.01.031

ACKNOWLEDGMENTS

I could not have completed this process without the unwavering support of Jiao Zhang. I also thank Professors Sara Hodges, Lynn Kahle, and Hong Yuan, for their generous help and insightful comments as I moved forward with this piece of work. Additionally, I want to thank my fellow colleagues and friends at University of Oregon for their support and accompaniment on this journey toward my doctoral degree.

I dedicate this manuscript to my grandmother, Lin Gao—tiny, but strong; unable to read or write, but full of wisdom; someone who took great care of me while I grew up and taught me to be fearless, open-minded, and to live life to its fullest. For her unconditional love, this is for her.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
II. THEORETICAL BACKGROUND AND HYPOTHESES	4
Assertive Message and Compliance	4
Sense of Power and Persuasion.....	6
Recipients' Sense of Power and Message Assertiveness.....	9
III. STUDY 1A	13
Method	13
Results.....	14
Discussion	15
IV. STUDY 1B	16
Method	16
Results.....	17
Discussion.....	17
V. STUDY 2	19
Method	20
Results.....	21
Discussion.....	27
VI. STUDY 3	29
Method	29
Results.....	32
Discussion.....	37

Chapter	Page
VII. GENERAL DISCUSSION.....	38
Theoretical Contributions	40
Managerial Implications	41
APPENDICES	43
A. MEASURES	43
B. STUDY STIMULI	44
REFERENCES CITED.....	45

LIST OF FIGURES

Figure	Page
1. Conceptual Model.....	12
2. Study 1A Result	15
3. Study 1B Result.	18
4. Study 2 Result.....	23
5. Study 3 Result.....	34

CHAPTER I

INTRODUCTION

Consumers are exposed every day to a large number of advertisements for various food products, and their food purchase decisions are influenced by such advertisements. It is reasonable to assume that the characteristics of marketing communications, as well as the characteristics of the message recipients, could influence the effectiveness of marketing communication. For example, individuals with a high sense of power could respond differently to persuasive messages that adopt an assertive, forceful tone from those with a low sense of power.

One general characteristic of persuasive messages is assertiveness. In marketing communication, there is ample variety in the level of assertiveness a brand presents. For example, Burger King uses an assertive and imperative slogan of “Have it Your Way,” and Sprite says, “Obey Your Thirst;” while some messages prove less assertive, such as: “Would you like a burger today?” The assertive message, on one hand, conveys importance and grabs attention (Kronrod, Grinstein, and Wathieu, 2012b). On the other hand, assertiveness can be perceived as forceful or as a threat to personal freedom, thus fostering reactance and reluctance towards the message (e.g., Dillard and Shen, 2005; Quick and Considine, 2008; Quick and Stephenson, 2007).

Existing research on the relationship between message assertiveness and compliance has mainly show that persuasion messages using assertive language are generally ineffective. For instance, prior research on messages geared toward living a healthy and sustainable lifestyle, such as general health campaigns promoting anti-smoking, exercising, and recycling, found that messages adopting forceful, imperative, and assertive languages

decrease recipients' compliance (e.g., Dillard and Shen, 2005; Lord, 1994; Quick and Considine, 2008; Quick and Stephenson, 2007; Sanders and Fitch, 2001). Moreover, assertive messages may raise reactance and create a backlash against the recommendations (e.g., Fitzsimons and Lehmann, 2004; Kellerman and Shea, 1996).

Recent research began to explore the conditions under which assertive messages could be more effective than non-assertive messages in persuasion. Assertive messages could be more effective in communications involving hedonic products (Kronrod, Grinstein, and Wathieu, 2012a). Assertive messages could also lead to more compliance when paired with the right communication strategy. For example, to encourage desired behaviors, using an assertive message to praise its recipients is more effective than using an assertive tone to scold the recipients (Grinstein and Kronrod, 2015).

However, little research has examined how the effect of message assertiveness in marketing communication depends on the message recipients' characteristics. The present research aims to fill this knowledge gap by examining how consumers' sense of power influence influences the persuasiveness of assertive messages. Recipients often associate assertive messages with a powerful source (Bacharach and Lawler 1981). This research addresses a central question of whether assertive messages in food advertising are more persuasive among low-power consumers or among high-power consumers.

The findings of this research suggest that the key to answering this question is not simply a matter of high or low power, but it is, in fact, a complicated process. The research provided evidence that high-power is more congruent with assertive messages, and low power is more congruent with non-assertive messages. The congruence between power and message assertiveness leads to more fluent processing and a relative reliance on the affective

evaluation, whereas incongruence between power and message assertiveness leads to uneven processing and to a relative reliance on cognitive analysis in the evaluation process (Forster, Leder and Ansorge, 2013; Reber, Winkielman, and Schwarz, 1998; Wadhwa and Zhang, 2015). Whether assertive messages will lead to compliance or noncompliance at different power states depends on whether the food product is superior on the affective (hedonic) aspects or the cognitive (utilitarian) aspects. When message assertiveness (versus non-assertiveness) and the power state (high versus low) fit (are congruent), the assertive message would help a product that is evaluated on affective features and in turn hurt a product that is evaluated on cognitive features.

This research examines the interaction effect of sense of power and message assertiveness in food advertising and has identified a new circumstance where assertive messages have a positive effect on persuasion effectiveness—namely when encouraging individuals with a low sense of power to purchase virtue foods. Not only does this research provide strong empirical implications about how to motivate consumers to eat better and to live healthier lives, but it also addresses the pattern of findings documented by Kronrod et al. (2012a)—that an assertive message is more effective in communications involving hedonic products and is moderated by consumers' sense of power. The pattern occurs among consumers with a sense of high power but reverses among consumers with a sense of low power.

CHAPTER II

THEORETICAL BACKGROUND AND HYPOTHESES

Assertive Message and Compliance

Food advertising messages can be either non-assertive—using a soft, polite tone that subtly prods consumers to buy the advertised food (e.g., “It’s worth trying our food”)—or assertive—using an imperative or a forceful tone to compel consumers to purchase the advertised food (e.g., “You must try our food”) (Kronrod, Grinstein, and Wathieu, 2012). Because politeness is critical in persuasion (Brown and Levinson, 1987; Levine and Boster, 2001; Paulson and Roloff, 1997; Sanders and Fitch, 2001), persuasive messages featuring an assertive language tend to be less effective in gaining compliance than messages featuring non-assertive language (Dillard and Shen, 2015; Lord, 1994; Quick and Considine, 2008; Quick and Stephenson, 2007; Sanders and Fitch, 2001); assertive messages may even create reactance and subsequently backfire (Fitzsimons and Lehmann, 2004; Kellermann and Shea, 1996). A general finding in the literature is that the use of an assertive tone in communications threatens the freedom of consumers and limits their autonomy in choosing options. For example, researchers show that when individuals are exposed to messages that use assertive and forceful language to promote exercise, those consumers perceive these persuasive messages as a threat to their freedom, which will be followed by reactance manifested in negative emotions and cognitions along with other generally unfavorable responses (Quick and Considine, 2008). Similar findings were documented in public health anti-smoking and safe sex campaigns (Dillard and Shen, 2005; Grandpre et al., 2003; Quick and Stephenson, 2007).

Recent research, however, has begun to show that in certain situations, assertive messages can be more effective than non-assertive messages in gaining compliance. For example, Kronrod et al. (2012b) suggest that the issue of importance helps the persuasiveness of assertive messages. They show that assertive language in environmental messages aimed at reducing air pollution, water conservation, and recycling, such as “Reducing air pollution: everyone must use more public transportation!” is more effective than non-assertive language such as “Reducing air pollution: everyone could use more public transportation!” This is especially true when participants believe these environmental issues are more important. The authors propose that perceived issue importance affects linguistic expectations, and assertive language supports notions of perceived urgency and mission (Kronrod et al., 2012b).

Besides the perceived issue importance by the recipients, the persuasiveness of assertive messages is also influenced by the communication strategy of the message source and the nature of the promoted product or behavior. Researchers found that an assertive message may lead to more compliance when paired with the proper communication strategy (e.g., praising versus scolding). For example, to encourage desired hygiene behaviors, using an assertive message to praise the recipients is more effective than using it to scold the recipients (Grinstein and Kronrod, 2015). Praise elevates the use of and expectations for assertive language (Forgas, 1998; Forgas and Cromer, 2004), while scolding evokes a negative emotional response and would produce expectations of less assertive language (Jackson, 2005). Similarly, Kronrod et al. (2012a) show that for hedonic products, assertive messages lead to a higher purchase intent than non-assertive messages because an assertive message conveys the linguistic expectation of a hedonic nature. The presence of positive

mood in hedonic consumption alters communication expectations for more assertive language.

Sense of Power and Persuasion

Power refers to an asymmetric control over valued resources in social relations (Keltner, Gruenfeld, and Anderson, 2003; Magee and Galinsky, 2008). If a person controls a resource valued by another person, he or she is said to have power over that person. The first person is independent, while the second person is dependent on the first person; thus, power captures interpersonal dependence in social relations. As a social construct, power serves as a tool to structure and organize individuals and groups (Rucker, Hu, and Galinsky, 2014).

Galinsky, Gruenfeld, and Magee (2003) argued that power can also become a psychological property of the individual. The experience of holding power in a particular situation generates a constellation of characteristics and propensities that manifest themselves in affect, cognition, and behaviors (Keltner, Gruenfeld, and Anderson, 2003). Differences in individuals' socioeconomic status (Kraus, Piff and Keltner, 2009) or social roles, such as government officials versus regular citizens, boss versus employee, parent versus child, or group leader versus group member, can lead to differences in both objective and subjective power, that is, a sense of power as a psychological state (Anderson and Galinsky, 2006; Magee, Milliken, and Lurie, 2010; Smith and Trope, 2006).

There are also situations that can temporarily throw people into feeling powerful or conversely, powerless. As a result, sense of power as a psychological state could be situationally primed by structural factors, such as role-play (e.g. Anderson and Galinsky, 2006) or cognitive factors such as event recall or semantic word priming (e.g. Keltner et al., 2003). A person's chronic sense of high power or low power can be measured (Anderson,

John and Keltner, 2012), and the person's sense of high or low power can also be temporally influenced by semantic priming procedures. In general, research shows that measured power and manipulated power have similar effects (Anderson and Galinsky, 2006; Rucker and Galinsky, 2008).

The last decade have witnessed an acceleration of research efforts to unpack power's far-reaching effects on consumer behavior (Dubois, Rucker, and Galinsky, 2012, for a review); however, only a limited amount of research has explored how power systematically affects the persuasiveness of message communication. Concerning audience power, Brinol et al. (2007) examined the effect of message recipients' power on attitude change and showed that power affects social judgment. The authors showed that power has different effects on persuasion depending on when power was induced. Specifically, when primed to feel powerful before processing a message, people would validate their existing views and reduce the perceived need to attend to subsequent information; when primed to feel powerful after a message has been processed, individuals would validate one's recent generated thoughts and become more confident in their message-related thoughts. Dubois, Rucker, and Galinsky (2016) studied communicator power and found that compared to low-power states, high-power states produce a greater emphasis on information that conveys competence (e.g., using adjectives like "capable," "skillful," "intelligent," and "confident"), contrasted with messages that convey warmth (e.g., using modifiers like "good natured" "trustworthy," "tolerant," "friendly," and "sincere"). Therefore, high-power communicators generate messages with greater competence information, and high-power audiences are persuaded more by competence information; however, the authors mostly emphasized the difference of the content of the message and the power dynamic between communicator and audience. They

did not address the issue with different tones and communication styles being used for the same message.

The literature in communication and psychology has indicated that a person's level of relative and absolute power has a direct impact on the adoption and expectations of different types of messages and strategies to gain compliance (Boster et al., 1995; Levine and Boster, 2001; Miller, et al., 1977). According to Bakan (1966) who introduced the concepts of agency and communion, individuals with an agentic orientation emphasize self-protection, self-assertion, and self-expansion. Wiggins (1991) posited that individuals with an agentic orientation tend to express dominant acts while avoiding submissive acts. In contrast, individuals with a communal orientation are more likely to consider others when making decisions. According to the agentic–communal model of power (Rucker, Dubois, and Galinsky, 2011; Rucker and Galinsky, 2016; Rucker et al., 2012), high-power individuals tend to adopt an agentic orientation, whereas low-power individuals tend to adopt a communal orientation. An assertive message sounds impolite and indicates the limitation of one's freedom and autonomy (e.g., Dillard and Shen, 2005); therefore, high-power could lead to lower compliance than low-power when the message uses an assertive tone.

Researchers have shown that less powerful individuals were perceived as more likely to use gentler and weaker communication strategies (e.g., hinting and flattering) and supplication (e.g., pleading and acting helpless); powerful individuals were instead perceived as more likely to bully (Howard, Blumstein, and Schwartz, 1986). Similarly, recent research suggests that high-power individuals favor competence in communication messages while lower power people favor warmth (Dubois, Rucker, and Galinsky, 2016). Assertive messages are rated as more abstract, more personal, and more competent, but non-assertive messages

are rated as more concrete, more communal, and warmer. Therefore, high power could lead to higher compliance than low power when the message uses an assertive tone.

Recipients' Sense of Power and Message Assertiveness

Although power has been shown to influence message selection and behavior, the persuasiveness of the assertive versus non-assertive message in low versus high-power groups remains unknown. Does high power or low power lead to more compliance? The literature on power and assertive messages suggests two opposite predictions as shown in the previous section. My central premise is that, because of the fit of language expectation between power state (high versus low) and communication strategy (strong versus weak, or competence versus warmth), high power is more compatible and congruent with assertive messages, while low power is more compatible and congruent with non-assertive messages in communication.

Previous literature on power and communication showed that, high-power individuals are more likely to use and be receptive to communication information that conveys competence and strength than are low-power individuals (e.g. Dubois, Rucker, Galinsky, 2016; Levine and Boster, 2001). Thus it is reasonable to assume that high-power individuals will find assertive messages (versus non-assertive messages) more congruent and compatible with their expectations, whereas low-power individuals will find assertive messages to be less congruent and less compatible with their expectations.

The congruence between communication expectations and message assertiveness may lead to more fluent information processing (e.g., Lee and Labroo, 2004) or generate a sense of fit, which has been shown to increase individuals' reliance on affective reactions rather than their reliance on cognitive analysis in evaluations (Forster, Leder and Ansonge, 2012;

Reber, Winkielman, and Schwarz, 1998; Wadhwa and Zhang, 2015). For example, Wadhwa and Zhang (2015) showed that because rounded numbers were more fluently processed, rounded prices (e.g. \$200) encouraged reliance on feelings; because non-rounded numbers were disfluently processed, non-rounded prices (e.g., \$198.76) encouraged reliance on cognition. Thus, rounded (non-rounded) prices led to a subjective experience of “feeling right” when the purchase decision was driven by feelings (cognition) and led to high purchase intent for a hedonic product (e.g., champagne) and a low purchase intent for utilitarian products (e.g., a calculator).

Whether the congruence between consumers’ sense of power and message assertiveness in food advertising will increase or decrease their purchase intention for an advertised food depends on whether the advertised food is a vice food or a virtue food. In the existing literature, virtue and vice products are typically conceptualized in relation to each other as relative virtues and relative vices (Doorn and Verhoef, 2011). Vice food usually refers to delicious but unhealthy eating options like pizza, and virtue food often denotes wholesome but less tasty alternatives like salad (Sela, Berger, and Liu, 2009). In a food context, an affective evaluation usually refers to the tastiness of the food, and a cognitive evaluation mostly refers to the careful assessment on the healthiness of the food. Since vice foods (virtue foods) score high on tastiness (healthiness) but score low on healthiness (tastiness), congruence (incongruence) between consumers’ sense of power and message assertiveness will have a positive (negative) effect on the purchase intention for a vice food but a negative (positive) effect on the purchase intention for a virtue food.

Since assertive (non-assertive) messages are congruent (incongruent) with high power, assertive messages will enable high-power individuals to evaluate the food ads via

affect and increase the relative reliance on the hedonic aspect of a product, which will increase consumers' purchase intent for vice foods but decrease their purchase intent for virtue foods. However, if the message is non-assertive, high power individuals would experience process incongruence because of the misfit between power state and message tone. This incongruence would, in turn, increase an individual's focus on cognitive analysis in evaluations. Therefore, for high-power individuals, non-assertive messages will increase the relative salience of the health benefits of a product, which in turn will increase their purchase intent for virtue goods rather than vice foods.

Since non-assertive (assertive) messages are congruent (incongruent) with low power, similarly, for low-power individuals, congruence between communication expectations and non-assertive messages may increase processing fluency (e.g., Lee and Labroo, 2004) or generate a sense of fit, which will in turn increase individuals' reliance on food tastiness rather than healthiness in evaluations (Forster, Leder and Ansoerge, 2012; Reber, Winkielman, and Schwarz, 1998; Wadhwa and Zhang, 2014). Consequently, non-assertive messages will increase the relative focus of the hedonic aspect of a product, which will increase low-power individuals' purchase intent for vice foods but decrease the purchase intent for virtue foods. However, if the message is assertive, incongruence between communication expectations and message assertiveness may lead to processing disfluency (e.g., Lee and Labroo, 2004) or generate a sense of misfit, which would decrease individuals' focus on tastiness and increase their reliance on healthiness in evaluations. Consequently, for low-power individuals, assertive messages will increase the relative salience of health-related assessment, which will decrease their purchase intent for vice foods but increase their

purchase intent for virtue goods. The preceding analysis leads to the following hypotheses (for theoretical model; see figure 1.):

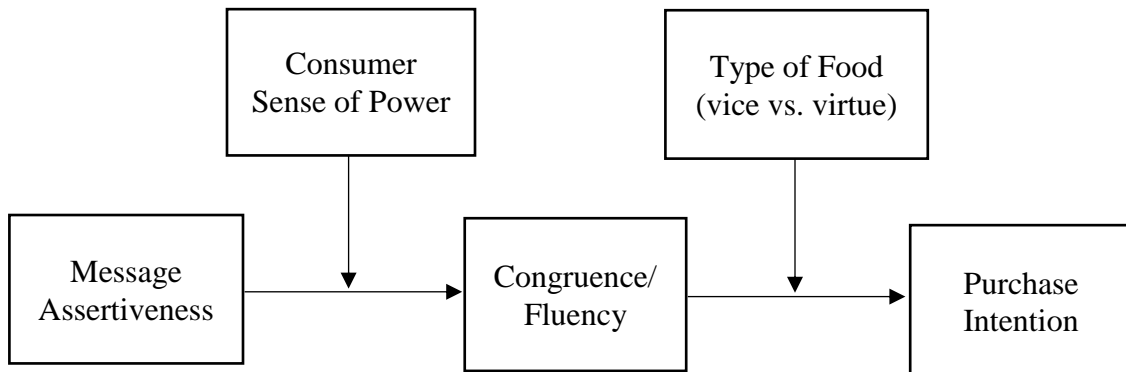
H1a: For high-power consumers, using an assertive (vs. a non-assertive) tone in food advertising will be more persuasive for vice food and less persuasive for virtue food.

H1b: For low-power consumers, using an assertive tone (vs. a non-assertive) in food advertising is more persuasive for virtue food and less persuasive for vice food.

H2a: High-power consumers will process assertive messages more fluently than non-assertive messages. Low-power consumers will process assertive messages less fluently than non-assertive messages.

H2b: Processing fluency increases the relative focus on tastiness in food evaluation, but process disfluency increases the relative focus on healthiness in food evaluation.

Figure 1.



CHAPTER III

STUDY 1A

Study 1A examined whether individuals' sense of power influenced the effectiveness of using assertive messages in food advertisements. In Study 1A, I focused on the situation where the advertised food was a vice food—a box of chocolate truffles. The assertiveness of the advertisement was manipulated, and participants' chronic sense of power was measured. Study 1A tested the hypothesis that using an assertive rather than a non-assertive message in an advertisement for a vice food would increase high-power participants' purchase intent but decrease low-power participants' purchase intent.

Method

Participants and Design. Ninety-one students at a large U.S. university (46.9% female; $M_{\text{age}} = 20.6$) participated in the study for partial course credit. They were randomly assigned to one of the two message conditions, the assertive message, and the non-assertive message.

Procedure. Participants were shown an advertisement for a box of Teuscher's Signature Truffles. Message assertiveness was manipulated by showing a sentence situated at the bottom of the ad that read, "You must try our chocolate" (assertive-message condition), or "It's worth trying our chocolate" (non-assertive-message condition). This manipulation was adapted from Kronrod et al. (2012).

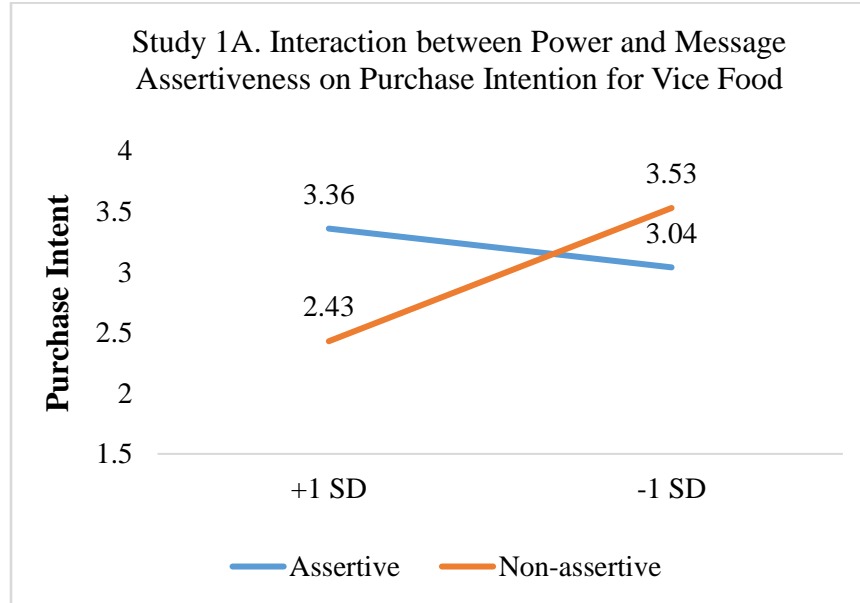
The dependent measure was purchase intention for the advertised food. Participants were asked four questions: a) "Would you buy a box of Teuscher's signature truffles?" (1 = *definitely would not buy*, 7 = *definitely would buy*); b) "How likely is it that you would purchase this product?" (1 = *highly unlikely*, 7 = *highly likely*); c) "How certain are you that

you would purchase this product?” (1= *very uncertain*, 7 = *very certain*); and d) “How definite is it that you would purchase this product?” (1= *definitely not*, 7 = *definitely will*). These questions were adapted from Dubois et al. (2009) and Kronrod et al. (2012). After the participants had answered these questions along with several demographics questions, they filled the 8-item chronic sense of power scale developed by Anderson, John, and Keltner, (2012; see Appendix A).

Results

Participants’ ratings on the four purchase intent questions were averaged to form a composite of purchase intention ($\alpha = .92$). A regression analysis was run to test the hypothesis using the composite of purchase intention as the dependent variable, and using message assertiveness (dummy coded), sense of power (a continuous variable, mean-centered, $M = 4.48$), and the interaction between the two variables as the independent variables. The analysis found a significant two-way interaction ($t(1, 87) = 4.97, p < .05$). The pattern of the interaction was consistent with the prediction (see figure 2). Spotlight analyses showed that the high-power participants (1SD above the mean score of sense of power) indicated a significantly stronger purchase intention in the assertive-message condition ($M = 3.36$) than in the non-assertive-message condition ($M = 2.43, t = 2.08, p < .05$), whereas the low-power participants (1 SD below the mean score of sense of power) indicated a slightly lower purchase intention in the assertive-message condition ($M = 3.04$) than in the non-assertive-message condition ($M = 3.53, t = -1.08, p = .28$).

Figure 2.



Discussion

The findings of Study 1A provided initial support for the hypothesis that consumers' sense of power could influence the persuasiveness of an advertisement for a food product. Moreover, the influence was such that when the advertised food was a vice food, assertiveness of the advertising message had a positive effect on high-power consumers' purchase intentions but a negative effect on low-power consumers' purchase intention.

CHAPTER IV

STUDY 1B

Study 1B further examined how individuals' sense of power influences the effect of message assertiveness in food advertisements. Adding on to Study 1A, Study 1B involved a virtue food, whole-wheat cereal. Study 1B tested the hypothesis that using an assertive rather than a non-assertive message in an advertisement for a virtue food would decrease high-power participants' purchase intent but increase low-power participants' purchase intent. Unlike Study 1A, in which participants' sense of power was measured, in Study 1B, participants' sense of power was manipulated through priming.

Method

Participants and Design. Two hundred fifty students at a large U.S. university (43.7% female, $M_{age} = 21.1$) participated in the study for partial course credit. They were randomly assigned to one of six conditions in a 3 (Sense of power: Low, High, Control) x 2 (Message Assertiveness: Assertive, Non-assertive) between-subjects design.

Procedure. Participants were presented with a print ad for shredded wheat cereal from the brand, Family Cereal (a fictitious brand; see Appendix B). Participants' sense of power was manipulated by showing a headline at the top of the ad. In the high-power condition, the headline read, "We all feel powerful in the morning;" in the low-power condition, the headline read, "We all feel powerless in the morning;" in the control condition, there was no headline. This manipulation was adopted from Dubois et al. (2012).

The manipulation of message assertiveness was similar to that used in Study 1A. There was a sentence at the bottom of the printed ad. In the assertive-message condition, the

sentence was, “You must try our cereal;” in the non-assertive-message condition, the sentence was, “It’s worth trying our cereal.”

The dependent measure was purchase intention. Participants were asked two questions: a) “Would you buy a box of Family Cereal’s shredded wheat cereal?” and b) “Would you buy a box of Family Cereal’s shredded wheat cereal in the next few weeks?” Participants were then dismissed after demographic information was collected.

Results

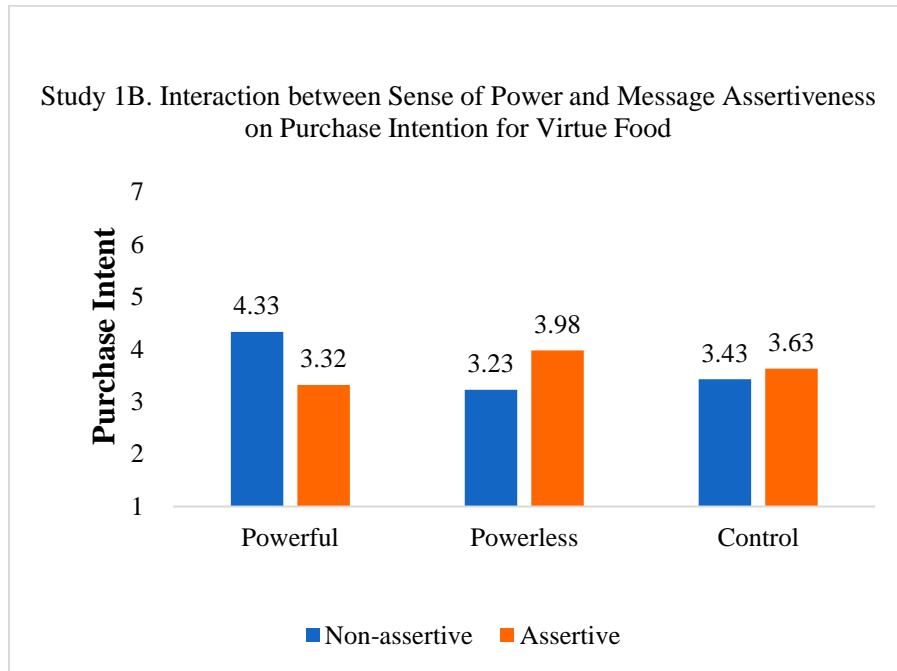
Participants’ ratings on the two purchase intent questions were averaged to form a composite of purchase intention ($r = .94$) and then submitted to a 3 (Sense of Power) \times 2 (Message Assertiveness) ANOVA. The analysis revealed a significant two-way interaction ($F(2, 244) = 6.13, p < .01$). The pattern was as predicted (see Figure 3). Planned contrasts analyses showed that in the high-power condition, participants’ purchase intent rating was significantly lower in the assertive-message condition than in the non-assertive-message condition ($M_{assertive} = 3.31, SD = 1.72$ versus $M_{non-assertive} = 4.33, SD = 1.68; F(1, 244) = 8.15, p < .01$). In the low-power condition, however, participants’ purchase intent was significantly higher in the assertive-message condition than in the non-assertive message condition ($M_{assertive} = 3.98, SD = 1.81$, versus $M_{non-assertive} = 3.23, SD = 1.92; F(1, 244) = 4.41, p < .05$). In the control condition, message assertiveness did not significantly influence purchase intent ($M_{assertive} = 3.43, SD = 1.56$, versus $M_{non-assertive} = 3.63, SD = 1.73; F(1, 244) < 1$).

Discussion

The finding of Study 1B provided support for the hypothesis that when an advertisement featured a virtue food, using an assertive rather than a non-assertive message

in the advertisement would decrease high-power consumers' purchase intent but increase low-power consumers' purchase intent.

Figure 3.



CHAPTER V

STUDY 2

The objective of Study 2 was twofold. One was to test H1 further and replicate the findings of Studies 1A and 1B. The food featured in an advertisement was manipulated as either a vice food (chocolate) or a virtue food (salad). The other was to examine the mechanism underlying the findings in Studies 1A and 1B. Study 2 measured processing fluency, perceived tastiness of the advertised food, and perceived healthiness of the advertised food. Study 2 tested the hypothesis that in a high-power state, assertive messages would increase the relative reliance on food tastiness, thus leading to high purchase intent for vice food and low purchase intent for virtue food. In low-power state, however, assertive messages would decrease the relative reliance on food tastiness but increase the relative reliance on healthiness, thus leading to low purchase intent for vice food and high purchase intent for virtue food.

Method

Participants and Design. Two hundred twenty participants recruited from Amazon's Mechanical Turk (39.5% female; $M_{\text{age}} = 28.3$) completed the study in exchange for nominal payment. They were randomly assigned to one of eight conditions in a 2 (Sense of Power: High, Low) \times 2 (Type of Food: Vice, Virtue) \times 2 (Message Assertiveness: Non-assertive, Assertive) between-subjects design.

Procedure. Participants saw a print advertisement displayed on the computer screen. At the center of the ad was either a picture of a box of Earth Green's premium salad (Virtue-food condition) or a picture of a box of Teuscher's signature truffles (Vice-food condition).

The name and price of the foods were shown beneath the picture (see Appendix B); the price was held constant between the two food conditions at \$12.99.

Similar to Study 1, sense of power was manipulated by adding a headline above the picture of the food. In the high-power condition, the headline was, “We all feel powerful sometimes;” in the low-power condition, the headline was, “We all feel powerless sometimes.” This manipulation was adapted from Dubois et al. (2012).

Message assertiveness was manipulated by adding a sentence beneath the picture of the food. In the non-assertive-message condition, the sentence was, “It’s worth trying our chocolate [salad];” in the assertive-message condition, the sentence was, “You must try our chocolate [salad].” This manipulation was adapted from Kronrod et al. (2012a).

The dependent measure was the same purchase intent questions in Study 1B. Several process measures were collected afterward. First, participants’ processing fluency was measured by three questions, “Did you find the message easy or difficult to understand/process/comprehend?” (1 = *very easy*, 7 = *very difficult*), adopted from White, Donnell, and Dahl (2011). Second, participants’ perceptions of the tastiness (1 = *not at all tasty*, 7 = *very tasty*) and healthiness (1 = *not at all healthy*, 7 = *very healthy*) of the advertised food were added. Third, participants were asked to indicate the extent to which they agreed or disagreed (1 = *strongly disagree*, 7 = *strongly agree*) with three statements about the advertisement: “The ad was well-designed/persuasive/convincing” as a measure of their evaluation of the advertisements. To measure if the ad triggered reactance, participants were asked to evaluate the appropriateness of the ad by indicating the extent to which they agreed or disagreed (1 = *strongly disagree*, 7 = *strongly agree*) with five statements about the ad: “The ad seemed forceful/ demanding/pushy/overbearing/aggressive.” To check the effectiveness of the

manipulation of sense of power, participants were asked to indicate the extent to which they felt powerful (1 = *I feel powerless*, 7 = *I feel powerful*) and the extent to which they felt they were in control (1 = *very little*, 7 = *very much*) at that moment. To check the effectiveness of the message assertiveness manipulation, participants were asked to rate how assertive they found the advertisement to be (1 = *not assertive at all*, 7 = *very assertive*). Finally, the participants answered several demographics questions and were thanked for their participation.

Results

Manipulation Checks. The ratings for the sense-of-power and sense-of-control questions were averaged to form a sense-of-power composite ($\alpha = .84$) and submitted to a 2 (Sense of Power) \times 2 (Message Assertiveness) \times 2 (Type of Food) ANOVA. The analysis found a significant main effect of sense of power ($F(1, 212) = 4.29, p < .05$): priming high power increased the sense-of-power composite ($M_{\text{high-power}} = 5.26, SD = 1.28$ versus $M_{\text{low-power}} = 4.85, SD = 1.44$), indicating that the manipulation of sense of power was effective. There was also a marginal main effect of message assertiveness ($F(1, 212) = 3.65, p = .058$); participants in the assertive-message condition felt more powerful ($M = 5.24, SD = 1.36$) than did those in the non-assertive-message condition ($M = 4.88, SD = 1.37$). No other effects were significant ($ps > .16$).

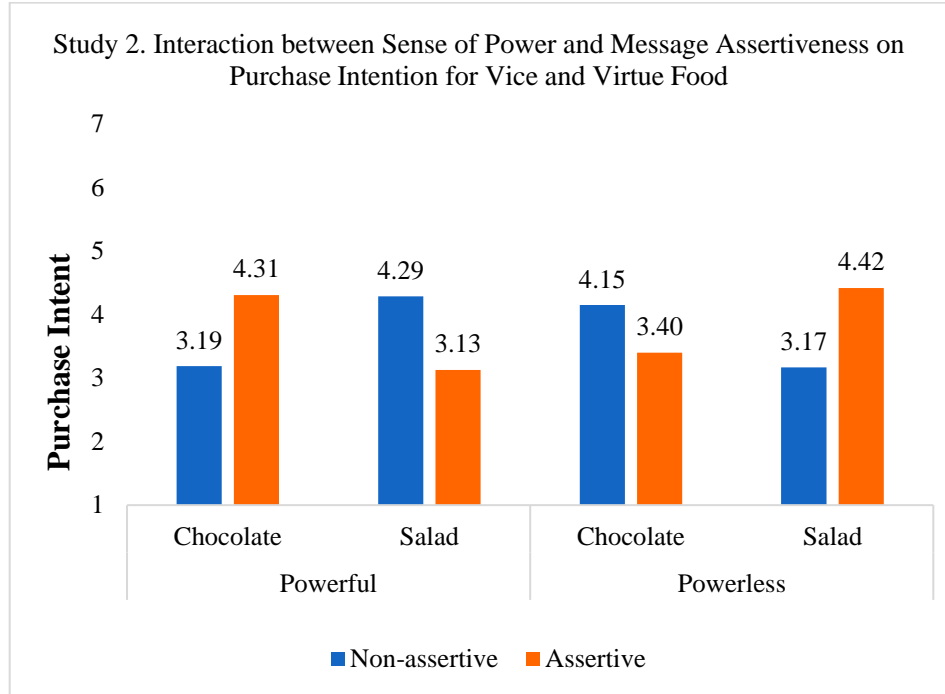
A similar 2 \times 2 \times 2 ANOVA on the rating of message assertiveness found a significant main effect of message assertiveness ($F(1, 212) = 12.71, p < .001$): participants in the assertive-message condition found the message more assertive ($M = 4.35, SD = 1.67$) than did those in the non-assertive-message condition ($M = 3.45, SD = 2.03$), suggesting that

the manipulation of message assertiveness was effective. No other effects were significant ($ps > .27$).

Purchase Intent. The purchase intent question was submitted to form a purchase intent composite ($\alpha = .93$) and submitted to a 2 (Sense of Power) \times 2 (Type of food) \times 2 (Message Assertiveness) ANOVA. The analysis revealed a significant three-way interaction ($F(1, 212) = 18.38, p < .01$). No other effects were significant ($F_s < 1$). The pattern of the three-way interaction was as predicted (see Figure 4).

The three-way interaction was probed by examining the sense of power \times message assertiveness two-way interaction separately in the vice-food condition and the virtue-food condition. In the vice-food (chocolate) condition, there was a significant sense of power \times message assertiveness two-way interaction ($F(1, 212) = 5.37, p < .05$). Planned contrasts analyses showed that in the high-power condition, participants indicated a stronger purchase intent when the ad message was assertive ($M = 4.31, SD = 1.68$) than non-assertive ($M = 3.19, SD = 1.78; F(1, 212) = 5.02, p < .05$), whereas in the low-power condition, participants indicated a weaker purchase intent when the ad message was assertive ($M = 3.40, SD = 1.69$) than non-assertive ($M = 4.15, SD = 1.75; F(1, 212) = 2.49, p = .10$). In the virtue-food (salad) condition, there was also a significant sense of power \times message assertiveness two-way interaction ($F(1, 212) = 18.38, p < .001$). Planned contrasts analyses showed that in the high-power condition, participants indicated a weaker purchase intent when the ad message was assertive ($M = 3.13, SD = 1.85$) than non-assertive ($M = 4.29, SD = 2.30; F(1, 212) = 5.52, p < .05$), whereas in the low-power condition, participants indicated a stronger purchase intent when the ad message was assertive ($M = 4.42, SD = 1.52$) than non-assertive ($M = 3.17, SD = 2.11; F(1, 212) = 6.47, p < .05$).

Figure 4.



Processing Fluency. A 2 (Sense of Power) \times 2 (Message Assertiveness) \times 2 (Type of Food) ANOVA on the composite score of processing fluency ($\alpha = .97$) found a significant sense of power \times message assertiveness two-way interaction ($F(1, 212) = 8.46, p < .05$). No other effects were significant ($ps > .11$). The pattern of the two-way interaction was consistent with the hypothesis: in the high-power condition, participants indicated that processing the ad was more fluent when the ad message was assertive ($M = 5.68, SD = 1.28$) than non-assertive ($M = 5.02, SD = 2.03; F(1, 216) = 4.08, p < .05$); in contrast, in the low-power condition, participants indicated that processing the ad was less fluent when the ad message was assertive ($M = 4.94, SD = 1.91$) than non-assertive ($M = 5.61, SD = 1.42; F(1, 216) = 4.24, p < .05$).

Perceived Tastiness. A similar 2 \times 2 \times 2 ANOVA on the rating of the perceived tastiness of the advertised food found a significant main effect of type of food ($F(1, 212) =$

28.82, $p < .001$); participants rated the vice food as tastier ($M = 5.22$, $SD = 1.54$) than the virtue food ($M = 4.15$, $SD = 1.74$). There was a significant three-way interaction ($F(1, 212) = 26.47$, $p < .001$). In the vice-food condition, there was a significant sense of power \times message assertiveness two-way interaction ($F(1, 212) = 22.39$, $p < .001$). Planned contrast analyses showed that in the high-power condition, participants perceived the food as tastier when the ad message was assertive ($M = 6.11$, $SD = 1.28$) than non-assertive ($M = 4.33$, $SD = 1.47$; $F(1, 212) = 17.99$, $p < .001$), whereas in the low-power condition, participants perceived food as less tasty when the ad message was assertive ($M = 4.55$, $SD = 1.33$) than non-assertive ($M = 6.04$, $SD = 1.20$; $F(1, 212) = 12.29$, $p < .001$).

In the virtue-food condition, the sense of power \times message assertiveness two-way interaction was not significant ($F(1, 212) = 2.05$, $p = .15$). Planned contrast analyses showed that in the high-power condition, participants perceived the food as directionally tastier when the message was assertive ($M = 4.76$, $SD = 1.68$) than non-assertive ($M = 4.15$, $SD = 1.81$; $F(1, 212) = 2.20$, $p = .14$), whereas in the low-power condition, participants perceived food as similarly tasty when the ad message was assertive ($M = 4.03$, $SD = 1.43$) as non-assertive ($M = 3.63$, $SD = 1.94$; $F(1, 212) < 1$).

Perceived Healthiness. A similar $2 \times 2 \times 2$ ANOVA on the rating of the healthiness of the food found a significant main effect of type of food ($F(1, 212) = 35.45$, $p < .001$); participants rated the virtue food as healthier ($M = 4.13$, $SD = 2.02$) than the vice food ($M = 2.69$, $SD = 1.59$). There was also a significant sense of power \times message assertiveness two-way interaction ($F(1, 212) = 13.32$, $p < .001$). When the message was assertive, high-power participants perceived the food as less healthy than low-power participants ($M_{\text{high-power}} = 2.68$, $SD = 1.59$ versus $M_{\text{low-power}} = 3.72$, $SD = 1.86$; $F = 10.77$, $p < .01$). When the message was

non-assertive, high-power participants perceived the food as healthier than low-power participants ($M_{\text{high-power}} = 3.85$, $SD = 2.19$ versus $M_{\text{low-power}} = 3.01$, $SD = 1.84$; $F = 6.29$, $p < .05$). Looking at it differently, high-power participants perceived the food as less healthy when the message was assertive than non-assertive message ($F = 13.87$, $p < .01$); low-power participants, however, perceived the food as healthier when the message was an assertive message than non-assertive message ($F = 4.28$, $p < .05$).

Finally, there was a significant three-way interaction ($F(1, 212) = 13.16$, $p < .001$). The three-way interaction was probed by examining the sense of power \times message assertiveness two-way interaction in the vice-food and virtue-food conditions separately. In the vice-food condition, the sense of power \times message assertiveness two-way interaction was not significant ($F < 1$). Message assertiveness did not influence the perceived healthiness of food in low-power condition ($M_{\text{assertive}} = 2.56$, $SD = 1.53$ versus $M_{\text{non-assertive}} = 2.78$, $SD = 1.71$; $F < 1$) or high-power condition ($M_{\text{assertive}} = 2.62$, $SD = 1.43$ versus $M_{\text{non-assertive}} = 2.83$, $SD = 1.79$; $F < 1$). In the virtue-food condition, there was a significant sense of power \times message assertiveness two-way interaction ($F(1, 212) = 25.29$, $p < .001$). Planned contrast analyses revealed that in high-power conditions, participants perceived the food as less healthy when the ad message was assertive ($M = 3.11$, $SD = 1.93$) than non-assertive ($M = 5.03$, $SD = 2.04$; $F(1, 212) = 17.11$, $p < .001$), whereas in low-power conditions, participants perceived the food as healthier when the ad message was assertive ($M = 4.87$, $SD = 1.50$) than non-assertive ($M = 3.37$, $SD = 1.90$; $F(1, 212) = 10.52$, $p = .001$).

Reactance to message. A similar $2 \times 2 \times 2$ ANOVA on the rating of reactance to the advertising message (forceful, pushy, overbearing, aggressive, and demanding) ($\alpha = .96$) found a significant main effect of message assertiveness ($F(1, 212) = 12.35$, $p < .01$), such

that assertive messages generated higher reactance ($M = 3.52$, $SD = 1.57$) than non-assertive messages ($M = 32.70$, $SD = 1.91$). No other significant effect was found ($ps > .15$).

Mediation. It was suggested that perceived tastiness and healthiness of the advertised food would mediate the sense of power \times type of food \times message assertiveness three-way interaction on purchase intent. Specifically, I predicted that when the assertiveness of the advertising message was congruent with participants' sense of power (i.e., non-assertive message for low-power participants, or assertive message for high-power participants), participants' purchase intent would be mediated by their perceptions of the tastiness of the food, regardless of whether the food was a vice food or a virtue food. In contrast, when the assertiveness of the advertising message was incongruent with participants' sense of power (i.e., assertive message for low-power participants, or non-assertive message for high-power participants), participants' purchase intent would be mediated by their perceptions of the healthiness of the food, regardless of whether the food was a vice food or a virtue food.

Mediation analysis, suggested by Hayes and Preacher (2013; PROCESS model 12), was conducted to test the estimated moderated mediation for the three-way interaction. Both the perceived tastiness rating and the perceived healthfulness rating were included as mediators in the model. The results of a bias-corrected (BC) bootstrapping analysis (based on 10,000 samples with replacement) revealed that perceived tastiness (95% BC bootstrap confidence interval [CI] of -3.04 to -1.04) and perceived healthfulness (95% BC bootstrap CI of -2.42 to $-.64$) both significantly mediated the three-way interaction on purchase intent. Moreover, as predicted for the high-power participants, when the ad message was non-assertive (i.e., incongruent) purchase intent was significantly mediated by the perceived healthiness rating (95% BC bootstrap CI of $.01$ to 1.56) but not by the perceived tastiness

rating (95% BC bootstrap CI of $-.16$ to $.89$). When the ad message was assertive (i.e., congruent), however, high-power participants' purchase intent was significantly mediated by the perceived tastiness rating (95% BC bootstrap CI of -1.50 to $-.40$) but not by the perceived healthiness rating (95% BC bootstrap CI of $-.17$ to $.92$). Similarly, for the low-power participants, when the ad message was non-assertive (i.e., congruent) their purchase intent was mediated by the perceived tastiness rating (95% BC bootstrap CI of -1.82 to $-.44$) but not by the perceived healthiness rating (95% BC bootstrap CI of $-.16$, to $.78$); when the ad message was assertive (i.e., incongruent), their purchase intent was significantly mediated by the perceived healthiness rating (95% BC bootstrap CI of $.45$ to 1.57) but not by the perceived tastiness rating (95% BC bootstrap CI of $-.64$ to $.03$).

Discussion

The findings of Study 2 replicate the findings documented in Studies 1A and 1B. Furthermore, Study 2 provided process evidence for the proposed mechanism. First, consistent with the hypothesis that assertive messages are more congruent with high sense of power while non-assertive messages are more congruent with a low sense of power, the results of Study 2 showed a significant sense of power \times message assertiveness, and the pattern was as predicted. Second, consistent with the hypothesis that congruence (incongruence) between ad message assertiveness and consumers' sense of power would lead to processing fluency (disfluency), which will increase (decrease) consumers' reliance on perceived tastiness over perceived healthiness of the advertised food in making food purchase decisions, the mediational results of Study 2 showed that high-power participants' purchase intent was mediated by perceived tastiness in the assertive-message condition but was mediated by perceived healthiness in the non-assertive-message condition. Low-power

participants' purchase intent was, however, mediated by perceived tastiness in the non-assertive-message condition but was mediated by perceived healthiness in the assertive-message condition.

Indeed, for the high-power participants, the persuasiveness of message assertiveness was consistent with the findings of Kronrod et al. (2012a): An assertive message decreased their purchase intent for the virtue food but increased their purchase intent for the vice food. A novel finding was that an assertive message had a beneficial effect on low-power participants, decreasing their purchase intent for the vice food and increasing their purchase intent for the virtue food. The overall pattern of results on purchase intent and perceptions of food tastiness and healthfulness was consistent with the idea that in the non-assertive-message conditions, priming high power increases (decreases) individuals' focus on food healthfulness (tastiness), whereas in the assertive-message conditions, priming high power decreases (increases) individuals' focus on food healthfulness (tastiness).

CHAPTER VI

STUDY 3

Study 3 aimed to replicate the findings in Study 2 and provided further evidence for the proposed mechanism. Study 3 extended Study 2 in several respects. First, in contrast to Study 2, which involved different food products, Study 3 held the food product constant and emphasized the hedonic versus utilitarian aspects by manipulating its position as tasty or healthy. Second, both Studies 1 and 2 used a headline manipulation of sense of power. To show that the findings were not limited to this particular type of manipulation of sense of power, Study 3 used a different manipulation of sense of power. Participants performed a task before seeing the food advertisement, which asked the participants to imagine a situation in which they played either a high-power role (group leader) or a low-power role (group member). This manipulation of sense of power was cleaner and more closely related to the construct of power, which captures social dependence and asymmetric control over valued resources in social contexts. Finally, to provide more direct evidence for the proposed mechanism, Study 3 not only measured perceived tastiness and healthfulness of the advertised food but also measured participants' focus on the tastiness versus healthfulness of the food in their evaluations.

Method

Participants and Design. Two hundred eighty-seven undergraduate students at a large U.S. university (48.7% female; $M_{\text{age}} = 22.3$ years) participated in the study for partial course credit. They were randomly assigned to one of 12 conditions in a 3 (Sense of Power: High, Low, Control) \times 2 (Food Positioning: Tasty, Healthy) \times 2 (Message Assertiveness: Non-assertive, Assertive) between-subjects design.

Procedure. Participants first completed a task that manipulated sense of power, adopted from Garbinsky et al. (2014). Participants were asked to imagine playing the role of either a group leader or a group member, and thus they would either evaluate another members' performance or be evaluated by the group leader. Specifically, participants in the high-power (low-power) condition read the following scenario:

Imagine that you are a college student taking a class that is required for your major. Your professor has assigned a group project that is worth 75% of your final grade and has specifically selected you (another student) as the group leader. The professor told you (the group leader) that they decided to put you (him) in charge of the group because they believe you are (he is) most capable. You have (You are one of) ten other group members that will listen to your (the group leader's) instructions and look to you (the group leader) for guidance in order to complete the group project on time. At the end of the semester, you (the group leader) will evaluate each group member's performance and your (his) evaluation will be incorporated into their project grade. They (You) will not have the opportunity to evaluate you (the group leader).

After reading the scenario, participants wrote a paragraph to describe how they would feel in the assigned role. Participants in the control condition did not perform this task.

In a pretest of this manipulation, another group of participants ($n = 39$) from the same population were randomly assigned to one of the two power conditions and asked to indicate the extent to which they felt powerful and the extent to which they felt they were in control at that moment (1 = not at all, 7 = extremely). Participants' moods were also measured using the PANAS scale adapted from Watson, Clark, and Tellegen (1998). The sense-of-power rating and the sense-of-control rating ($\alpha = .91$) were averaged to create a sense-of-power composite. The results of a t -test showed that the composite was higher in the high-power condition ($M = 5.45$, $SD = 1.61$) than in the low-power condition ($M = 4.39$, $SD = 1.59$; $t(37) = 2.50$, $p < .05$), indicating that the manipulation of sense of power worked as intended. Consistent with the findings of the research on sense of power (Rucker et al. 2012; Smith and

Trope 2006), participants' moods ($\alpha = .91$) did not significantly differ between the two power conditions ($t(37) = 1.15, p > .25$).

After the power prime, participants saw displayed on the computer screen a print ad for Sander's Mixed Berries Yogurt. Food positioning was manipulated by adding a headline above the picture of the yogurt. In the tasty-position condition, the headline was, "Sander's Mixed Berries Yogurt, The Tastiest Yogurt!" In the healthy-position condition, the headline was, "Sander's Mixed Berries Yogurt, The Healthiest Yogurt!" In a pretest of this manipulation, a group of participants from the same population ($n = 47$) saw one of the two versions of the ad and rated the tastiness and healthfulness of the yogurt. As expected, the yogurt received a higher tastiness rating in the tasty-position condition ($M = 5.65, SD = 1.03$) than in the healthy-position condition ($M = 4.67, SD = 1.85; t(46) = 2.28, p < .05$), and it received a higher healthfulness rating in the healthy-position condition ($M = 5.54, SD = 1.06$) than in the tasty-position condition ($M = 4.43, SD = 1.85; t(46) = 2.52, p < .05$). These results suggested that the manipulation of food positioning worked as intended.

As in the previous two studies, message assertiveness was manipulated by adding a sentence beneath the picture of the food. In the non-assertive-message condition, the sentence was, "It's worth trying our yogurt." In the assertive-message condition, the sentence was, "You must try our yogurt."

The dependent measure was purchase intent. Participants indicated whether they would buy the advertised yogurt that day and whether they would buy it within the next few weeks (1 = definitely would not buy, 7 = definitely would buy). As in Study 2, participants' perceptions of the tastiness and healthfulness of the food were measured. Study 3 also added a new question to measure participants' focus: Specifically, participants were asked, "When

you were evaluating Sander's Mixed Berries Yogurt, were you focused more on the yogurt's healthfulness or its tastiness?" (1 = healthfulness, 7 = tastiness).

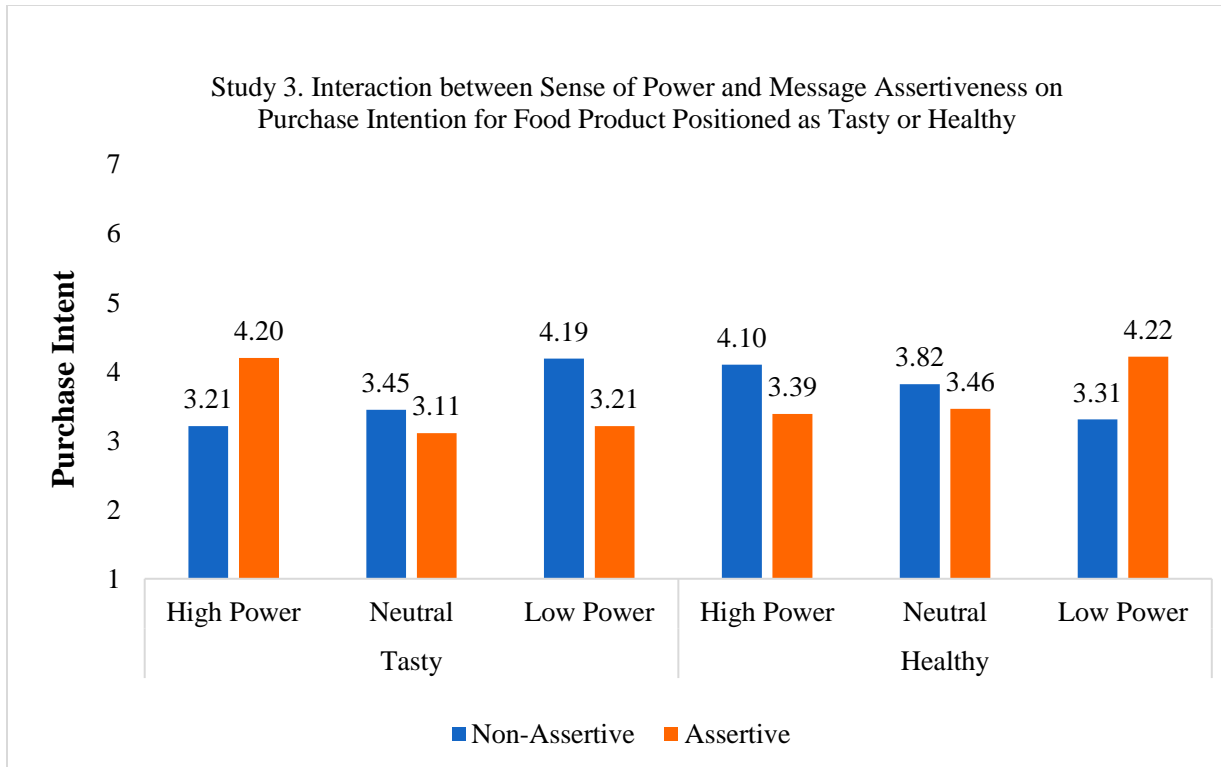
Results

Purchase Intent. The two purchase intent questions were averaged to form a purchase intent composite ($r = .92$) and submitted to a 3 (sense of power) \times 2 (food positioning) \times 2 (message assertiveness) ANOVA. The analysis found a significant three-way interaction ($F(2, 275) = 7.60, p = .001$). No other effects were significant ($F_s < 1$). The pattern of the three-way interaction was as predicted and replicated that found in Study 2 (see figure 5).

The pattern of the three-way interaction was probed by examining the power \times message framing two-way interaction in the tasty-positioning and healthy-positioning conditions separately. When the yogurt was positioned as the tastiest, there was a significant two-way interaction ($F(2, 140) = 4.84, p < .01$). High-power participants were more willing to purchase the yogurt if the ad message was assertive rather than non-assertive ($M_{assertive} = 4.20, SD = 1.24$ versus $M_{non-assertive} = 3.21, SD = 1.63, F(1, 140) = 4.90, p < .05$), whereas low-power participants were more willing to purchase the yogurt if the ad message was non-assertive rather than assertive ($M_{assertive} = 3.21, SD = 1.65$, versus $M_{non-assertive} = 4.19, SD = 1.55, F(1, 140) = 4.31, p < .05$). Participants in the control condition indicated a similar purchase intent regardless of message assertiveness ($M_{assertive} = 3.10, SD = 1.71$ versus $M_{non-assertive} = 3.45, SD = 1.84, F < 1$). When the yogurt was positioned as the healthiest, there was a significant two-way interaction of power and message assertiveness ($F(1, 135) = 3.43, p < .05$). High-power participants did not reveal that they were significantly more willing to purchase the yogurt if the ad message was non-assertive than assertive ($M_{assertive} = 3.39, SD =$

1.82 versus $M_{non-assertive} = 4.10$, $SD = 1.37$, $F(1, 135) = 2.34$, $p = .13$), whereas low-power participants were more willing to purchase the yogurt if the message was assertive rather than non-assertive ($M_{assertive} = 4.22$, $SD = 1.33$, versus $M_{non-assertive} = 3.31$, $SD = 1.78$, $F(1, 135) = 3.96$, $p < .05$).

Figure 5.



Focus. A 2 (Sense of Power) x 2 (Message Assertiveness) x 2 (Food Positioning) ANOVA on the rating of focusing on tastiness versus healthfulness of the yogurt in evaluation found a significant sense of power \times message assertiveness two-way interaction ($F(1, 185) = 14.22$, $p < .01$). No other effects were significant ($F_s < 1$). In the non-assertive-message condition, high-power participants focused less (more) on the tastiness (healthfulness) of the yogurt ($M = 3.35$, $SD = 1.76$) than low-power participants ($M = 4.08$, $SD = 1.51$; $F(1, 185) = 5.11$, $p < .05$). In the assertive-message condition, however, high-

power participants ($M = 4.06$, $SD = 1.41$) focused more (less) on the tastiness (healthfulness) of the yogurt than low-power participants ($M = 3.04$, $SD = 1.68$; $F(1, 185) = 9.42$, $p < .01$). That is, high-power participants focused more (less) on the healthfulness (tastiness) of the yogurt in the non-assertive-message condition than in the assertive-message condition ($F(1, 185) = 4.76$, $p < .05$); low-power participants, however, focused less (more) on the healthfulness (tastiness) of the yogurt in the non-assertive-message condition than in the assertive-message condition ($F(1, 185) = 9.90$, $p < .01$). These results are consistent with the proposed mechanism.

Perceived Tastiness. A $2 \times 2 \times 2$ ANOVA on the rating of the tastiness of the yogurt found a significant main effect of food positioning ($F(1, 185) = 22.42$, $p < .001$), such that the yogurt received a higher tastiness rating in the tasty-position condition ($M = 4.84$, $SD = 1.66$) than in the healthy-position condition ($M = 3.69$, $SD = 1.74$); a significant sense of power \times message assertiveness two-way interaction ($F(1, 185) = 6.62$, $p < .01$), such that high-power participants perceived the yogurt as tastier if the message was assertive ($M = 4.80$, $SD = 1.49$) than non-assertive ($M = 3.84$, $SD = 1.84$; $F(1, 185) = 7.37$, $p < .01$), whereas low-power participants perceived the yogurt as similarly tasty regardless of message assertiveness ($M_{assertive} = 4.04$, $SD = 1.60$ versus $M_{non-assertive} = 4.38$, $SD = 1.94$; $F < 1$); and a marginal significant three-way interaction ($F(1, 185) = 3.60$, $p = .059$). No other effects were significant ($ps > .21$).

The pattern of the three-way interaction was probed by examining the sense of power \times message assertiveness two-way interaction separately in the tasty-positioning and healthy-positioning conditions. When the yogurt was positioned as the tastiest, there was a significant sense of power \times message assertiveness two-way interaction ($F(1, 185) = 10.03$, $p < .01$):

High-power participants perceived the yogurt as tastier if the ad message was assertive ($M = 5.30$, $SD = 1.41$) rather than non-assertive ($M = 4.21$, $SD = 1.77$; $F(1, 185) = 5.68$, $p < .05$), whereas low-power participants perceived the yogurt as less tasty if the ad message was assertive ($M = 4.36$, $SD = 1.73$) rather than non-assertive ($M = 5.38$, $SD = 1.50$; $F(1, 185) = 4.43$, $p < .05$). When the yogurt was positioned as the healthiest, the sense of power \times message assertiveness interaction was not significant ($F < 1$); message assertiveness did not significantly influence perceived tastiness of the yogurt in high-power condition ($M_{assertive} = 4.18$, $SD = 1.37$ versus $M_{non-assertive} = 3.48$, $SD = 1.87$; $F(1, 185) = 2.18$, $p > .14$) or low-power condition ($M_{assertive} = 3.76$, $SD = 1.45$ versus $M_{non-assertive} = 3.38$, $SD = 1.84$; $F < 1$).

Perceived Healthfulness. A similar $2 \times 2 \times 2$ ANOVA on the rating of the healthfulness of the yogurt found a significant main effect of food positioning ($F(1, 185) = 10.89$, $p < .01$), such that the yogurt received a higher healthfulness rating in the healthy-position condition ($M = 5.61$, $SD = 1.58$) than in the tasty-position condition ($M = 4.90$, $SD = 1.79$); a significant main effect of sense of power ($F(1, 185) = 18.26$, $p < .001$), such that high-power participants rated the yogurt as more healthful ($M = 5.71$, $SD = 1.66$) than low-power participants ($M = 4.78$, $SD = 1.66$); and, a significant three-way interaction ($F(1, 185) = 8.96$, $p < .01$). No other effects were significant ($ps > .23$).

The pattern of the three-way interaction was probed by examining the sense of power \times message assertiveness two-way interaction in the tasty-positioning and healthy-positioning conditions separately. When the yogurt was positioned as the tastiest, the sense of power \times message assertiveness interaction was not significant ($F(1, 185) = 1.15$, $p > .28$). Message assertiveness did not significantly influence perceived healthiness of the tasty food between high-power condition ($M_{assertive} = 5.33$, $SD = 1.30$ versus $M_{non-assertive} = 4.63$, $SD = 1.74$; $F(1,$

185) = 2.68, $p > .10$) and low-power condition ($M_{assertive} = 4.77$, $SD = 1.88$ versus $M_{non-assertive} = 4.79$, $SD = 1.38$; $F < 1$). When the yogurt was positioned as the healthiest, there was a significant sense of power \times message assertiveness two-way interaction ($F(1, 185) = 8.11$, $p < .01$): high-power participants perceived the yogurt as similarly healthy regardless of whether the ad message was assertive ($M = 6.14$, $SD = 1.52$) or non-assertive ($M = 6.80$, $SD = 1.29$; $F(1, 185) = 2.16$, $p > .14$), whereas low-power participants perceived the yogurt as healthier if the ad message was assertive ($M = 5.40$, $SD = 1.47$) than non-assertive ($M = 4.13$, $SD = 1.73$; $F(1, 185) = 8.36$, $p < .01$).

Mediation. A mediation analysis similar to that in Study 2 was conducted. The results of the analysis showed that perceived tastiness (95% BC bootstrap CI of -1.74 to $-.01$) and perceived healthfulness (95% BC bootstrap CI of -1.86 to $-.36$) both mediated the three-way interaction on purchase intent. The overall pattern of the mediation results is similar to that found in Study 2. As predicted, for the high-power participants, when the message was non-assertive (i.e., incongruent), the purchase intent was significantly mediated by the perceived healthfulness rating (95% BC bootstrap CI of $.42$ to 1.28) but not by the perceived tastiness rating (95% BC bootstrap CI of $-.88$ to $.11$). When the ad message was assertive (i.e., congruent), however, high-power participants' purchase intent was significantly mediated by the perceived tastiness rating (95% BC bootstrap CI of $-.94$ to $-.16$) but not by the perceived healthfulness rating (95% BC bootstrap CI of $-.08$ to $.66$).

Similarly for low-power participants, when the ad message was non-assertive (i.e., congruent) their purchase intent was mediated by the perceived tastiness rating (95% BC bootstrap CI of -1.49 to $-.43$) but not by the perceived healthfulness rating (95% BC bootstrap CI of $-.60$ to $.07$); when the ad message was assertive (i.e., incongruent), their

purchase intent was significantly mediated by the perceived healthfulness rating (95% BC bootstrap CI of .02 to .62) but not by the perceived tastiness rating (95% BC bootstrap CI of $-.72$ to $.13$).

Discussion

The findings of Study 3 replicated those in Study 2 and provided additional support for the proposed mechanism for congruence. The basic effect of power was replicated by using a different and cleaner manipulation of sense of power and controlling for the potential confound in Study 2, which involved different food products. Study 3 not only replicated the mediational results found in Study 2 but also provided direct evidence for the proposed theory that high-power (low-power) individuals focus more on food tastiness (healthfulness) in evaluating food products when the message was assertive. When the message was non-assertive, the pattern reverses: high-power (low-power) individuals focus more on food healthfulness (tastiness) in evaluating food products.

CHAPTER VII

GENERAL DISCUSSION

The current research examined how consumers' sense of power influences the persuasiveness of assertive messages in food advertising. More specifically, it looked at their likelihood of purchasing vice versus virtue foods after viewing the ad. Building on the agentic–communal framework of sense of power (Rucker et al., 2012) and findings suggesting that high-power individuals are more likely to adopt and be receptive to strong, competent information and communication strategies than low-power individuals in interpersonal communication (Dubois, Rucker, and Galinsky, 2016; Levine and Boster, 2001), a new theoretical framework was proposed to predict how message recipients' sense of power enables or weakens the persuasiveness of the assertive message, such as “You must buy [the name of the advertised food].”

High power is more congruent with assertive messages. This congruence will enable consumers to process the information more smoothly and fluently; therefore, it leads the consumers to rely more on the affective evaluation, such as food tastiness, in the decision-making process. High power is less congruent with non-assertive messages. This incongruence will prevent consumers from processing the information smoothly and fluently; therefore, it leads the consumers to rely more on the cognitive evaluation, such as food healthiness. For high-power individuals, then, an assertive tone in the food ads would increase the purchase of a vice food and decrease the purchase intent of a virtue food. Similarly, low power is less congruent with assertive messages but more congruent with non-assertive messages. This congruence (incongruence) would, in turn, lead to relative reliance on the food tastiness (healthiness) in the evaluation process, so an assertive tone in the food

ads would increase the purchase intent of a virtue food and decrease the purchase intent of a vice food.

The results of three studies provided empirical support for the predictions and the congruence mechanism. When food advertisements used an assertive tone, priming high power (versus low power) increased participants' purchase intent for vice foods and decreased their purchase intent for virtue foods; the perceived tastiness of the advertised food mediated high-power participants' purchase intent, while the perceived healthfulness of the advertised food mediated low-power participants' purchase intent. When food advertisements used a neutral or non-assertive tone, priming high power (versus low power) decreased participants' purchase intent for vice foods but increased their purchase intent for virtue foods.

More importantly, the congruency between sense of power and message assertiveness influenced the relative reliance on tastiness versus healthiness. When food advertising messages were assertive, priming high power decreased participants' focus on food healthfulness over food tastiness. The studies showed that the perceived tastiness of the advertised food mediated high-power participants' purchase intent, whereas the perceived healthfulness of the advertised food mediated low-power participants' purchase intent. When food advertising messages were non-assertive, the pattern reversed. Priming high power increased participants' focus on food healthfulness over food tastiness. The studies showed that the perceived healthfulness of the advertised food mediated high-power participants' purchase intent, whereas the perceived tastiness of the advertised food mediated low-power participants' purchase intent.

Theoretical Contributions

Adding to recent findings of when and how to use assertive messages, the current research introduced a relevant social construct—sense of power—to the persuasion literature of message assertiveness. This research shows that, the findings of Kronrod et al. (2012) that assertive messages (versus non-assertive messages) are more effective for hedonic products but are less effective for utilitarian products, can apply to the context of food purchase decisions, but only for consumers who experience a sense of high power. When participants were primed to experience low power, however, the pattern of results were the opposite of that predicted by Kronrod et al. (2012). Assertive messages (versus non-assertive messages) decreased low-power participants' purchase intent for vice foods but increased their purchase intent for virtue foods because the incongruence between low-power and assertive tone enables low-power participants to rely on their cognitive analysis to make the decision. The finding that assertive messages increased low-power participants' purchase intent for virtue foods provided new evidence that assertive messages could be more effective than non-assertive messages in gaining compliance under certain conditions (Kronrod et al., 2012a, 2012b; Grinstein and Kronrod, 2016).

This research also makes theoretical contributions to the literature on food marketing and the literature on power. Limited research in either arena has examined the possibility that consumers' social aspects, such as their power or sense of power, may influence their food purchase decisions. In a separate study in which no messages regarding assertiveness were included, the findings replicated the patterns in non-assertive conditions of the current research, showing that high-power individuals are more likely to focus on food healthfulness than the food's indulgence in deciding whether to purchase the food product.

Managerial Implications

The findings have important managerial implications because consumers' sense of power is something marketers can easily influence. For example, as both current research and Dubois et al.'s (2012) research showed, natural and subtle manipulations, such as adding the headlines "We all feel powerful sometimes" and "We all feel powerless sometimes," to a food advertisement is sufficient to influence an individual's sense of power or lack thereof. Madzharov, Block, and Morrin, (2015) also showed that ambient scents in retail stores can influence shoppers' sense of power and consequently influence their product preference and purchases.

Concerns about obesity and associated health conditions, like type 2 diabetes, have grown rapidly in the past few years (Thorpe, 2009). More importantly, obesity has been shown to be negatively correlated with socioeconomic status (e.g., Sobal and Stunkard, 1989; Ogden, Carroll, Kit, and Flegal, 2012). The current research shows that perhaps individuals in low-power status are more vulnerable to unhealthy eating habits. It also provides insights on how to effectively motivate low-power individuals to eat healthier foods in response to appropriate communication tools, such as using an assertive tone or an empowering message.

The findings of the current research should help marketers of food products to develop more effective marketing communication. Because food advertising messages typically use a neutral or a non-assertive tone, the findings suggest that in selecting the target consumers for their marketing communication, marketers should consider the type of food they are promoting and target consumers' sense of power. For example, if they are promoting indulgent foods, targeting consumers with a sense of lower power will be more effective than targeting consumers with a sense of high power. Similarly, if they are promoting healthy

foods, targeting consumers with a sense of high power will be more effective than targeting consumers with a sense of low power. Related to this result, marketers of indulgent foods may do well by priming a sense of powerlessness in their marketing communication, whereas marketers of healthy foods may do well by priming a sense of powerfulness in their marketing communication.

Although using a polite and non-assertive tone in advertisements can be more effective than using a forceful and an assertive tone, as Kronrod et al. (2012a) showed, this generalization is not always the case. The findings of this research suggested two situations in which marketers of food products could do better by using an assertive tone in their advertisements: (1) when they promote indulgent foods to consumers with a sense of high power; and, (2) when they promote healthy foods to consumers with a sense of low power.

APPENDIX A

MEASURES

Mood (PANAS measures)

Please indicate your feelings at this moment

Distressed, Enthusiastic, Irritable, Upset, Nervous, Interested, Excited, Inspired, and Active

(Not at all or Very slightly → Extremely)

Sense of Power Scale

Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality, 80*(2), 313-344.

1. I can get him/her/them to listen to what I say.
2. My wishes do not carry much weight.
3. I can get him/her/them to do what I want.
4. Even if I voice them, my views have little sway.
5. I think I have a great deal of power.
6. My ideas and opinions are often ignored.
7. Even when I try, I am not able to get my way.
8. If I want to, I get to make the decisions.

APPENDIX B


STIMULI — SAMPLE ADS

**We All Feel Powerful
Sometimes**



Teuscher 12 pc Signature Truffles, the finest Swiss chocolate. Price \$12.99.

**We All Feel Powerless
Sometimes**



Earth Green's Premium Salad, the healthiest choice. Price \$12.99.

**Sander's Mixed Berries Yogurt
The Tastiest Yogurt !**



It's Worth Trying Our Yogurt

NET WT 6oz(170g)/Container \$1.59

INGREDIENT: CULTURED PASTEURIZED GRADE A NONFAT MILK, CITRIC ACID, EVAPORATED CANE JUICE, BLUEBERRY, STRAWBERRY, RASPBERRY, TRICALCIUM PHOSPHATE, PECTIN.

**Sander's Mixed Berries Yogurt
The Healthiest Yogurt !**



You Must Try Our Yogurt

NET WT 6oz(170g)/Container \$1.59

INGREDIENT: CULTURED PASTEURIZED GRADE A NONFAT MILK, CITRIC ACID, EVAPORATED CANE JUICE, BLUEBERRY, STRAWBERRY, RASPBERRY, TRICALCIUM PHOSPHATE, PECTIN.

REFERENCES CITED

- Anderson, C., & Galinsky, A. D. (2006). Power, optimism, and risk-taking. *European Journal of Social Psychology*, 36(4), 511-36.
- Anderson, C., John, O.P. & Keltner, D. (2012). The personal sense of power. *Journal of Personality*, 80(2), 313-44.
- Bacharach, S. B., & Lawler, E. J. (1981). Power and tactics in bargaining. *ILR Review*, 34(2), 219-33.
- Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion*. Oxford: RandMcNally.
- Boster, F. J., Kazoleas, D., Levine, T., Rogan, R. G. & Kang, K.H. (1995). The impact of power on communicative persistence, strategic diversity and bargaining outcomes. *Communication Reports*, 8(2), 136-44.
- Brinol, P., Petty, R. E., Valle, C., Rucker, D. D., & Becerra, A. (2007). The effects of message recipients' power before and after persuasion: A self-validation analysis. *Journal of Personality and Social Psychology*, 93(6), 1040-53.
- Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage*, Vol. 4. Cambridge: Cambridge University Press.
- Dillard, J. P., & Shen, L. (2005). On the nature of reactance and its role in persuasive health communication. *Communication Monographs*, 72(2), 144-68.
- Doorn, J., & Verhoef, P. C. (2011). Willingness to pay for organic products: Differences between virtue and vice foods. *International Journal of Research in Marketing*, 28(3), 167-180.
- Dubois, D., Rucker, D. D., & Galinsky, A. D. (2012). Super size me: Product size as a signal of status. *Journal of Consumer Research*, 38(6), 1047-62.
- (2015). Social class, power, and selfishness: When and why upper and lower-class individuals behave unethically. *Journal of Personality and Social Psychology*, 108(3), 436.
- (2016). Dynamics of communicator and audience power: The persuasiveness of competence versus warmth. *Journal of Consumer Research*, 43(1), 68-85
- Fitzsimons, G. J., & Lehmann, D. R. (2004). Reactance to recommendations: When unsolicited advice yields contrary responses. *Marketing Science*, 23(1), 82-94.

- Forgas, J. P. (1998). Asking nicely? The effects of mood on responding to more or less polite requests. *Personality and Social Psychology Bulletin*, 24(2), 173-85.
- Forgas, J. P. & Cromer, M. (2004). On being sad and evasive: Affective influences on verbal communication strategies in conflict situations. *Journal of Experimental Social Psychology*, 40(4), 511-18.
- Forster, M., Leder, H. & Ansorge, U. (2013). It felt fluent, and I liked it: Subjective feeling of fluency rather than objective fluency determines liking. *Emotion*, 13(2), 280.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of Personality and Social Psychology*, 85(3), 453.
- Garbinsky, E. N., Klesse, A. & Aaker, J. (2014). Money in the bank: Feeling powerful increases saving. *Journal of Consumer Research*, 41(3), 610-23.
- Grandpre, J., Alvaro, E. M., Burgoon, M., Miller, C. H., & Hall, J. R. (2003). Adolescent reactance and anti-smoking campaigns: A theoretical approach. *Health Communication*, 15(3), 349-66.
- Grinstein, A., & Kronrod, A. (2016). Does sparing the rod spoil the child? How praising, scolding, and an assertive tone can encourage desired behaviors. *Journal of Marketing Research*, 53(3), 433-441.
- Hayes, A. F., & Preacher, K. J. (2013). Conditional process modeling: Using structural equation modeling to examine contingent causal processes. *Structural Equation Modeling: A Second Course*, 2, 217-64.
- Howard, J. A., Blumstein, P., & Schwartz, P. (1986). Sex, power, and influence tactics in intimate relationships. *Journal of Personality and Social Psychology*, 51(1), 102.
- Jackson, A. (2005). Don't scold smokers. *Patient Education and Counseling*, 57(2), 239-40.
- Kellermann, K., & Shea, C. (1996). Threats, suggestions, hints, and promises: Gaining compliance efficiently and politely. *Communication Quarterly*, 44(2), 145-65.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265-84.
- Kraus, M. W., Piff, P. K., & Keltner, D. (2009). Social class, sense of control, and social explanation. *Journal of Personality and Social Psychology*, 97(6), 992-1004.
- Kronrod, A., Grinstein, A., & Wathieu, L. (2012a). Enjoy! Hedonic consumption and compliance with assertive messages. *Journal of Consumer Research*, 39(1), 51-61.

- (2012b). Go green! Should environmental messages be so assertive? *Journal of Marketing*, 76(1), 95-102.
- Lee, A. Y., & Labroo, A. A. (2004). The effect of conceptual and perceptual fluency on brand evaluation. *Journal of Marketing Research*, 41(2), 151-165.
- Levine, T., & Boster, F. (2001). The effects of power and message variables on compliance. *Communication Monographs*, 68(1), 28-48.
- Lord, K. R. (1994). Motivating recycling behavior: A quasi-experimental investigation of message and source strategies. *Psychology & Marketing*, 11(4), 341-58.
- Madzharov, A. V., Block, L. G. & Morrin, M. (2015). The cool scent of power: Effects of ambient scent on consumer preferences and choice behavior. *Journal of Marketing*. 79(1), 83-96.
- Magee, J. C., & Galinsky, A. D. (2008). 8 Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, 2(1), 351-98.
- Magee, J. C., Milliken, F. J., & Lurie, A. R. (2010). Power differences in the construal of a crisis: The immediate aftermath of September 11, 2001. *Personality and Social Psychology Bulletin*, 36(3), 354-70.
- Miller, G., Boster, F., Roloff, M., & Seibold, D. (1977). Compliance-gaining message strategies: A typology and some findings concerning effects of situational differences. *Communications Monographs*, 44(1), 37-51.
- Ogden, C. L., Carroll, M. D., Kit, B. K., & Flegal, K. M. (2012). Prevalence of obesity and trends in body mass index among us children and adolescents, 1999-2010. *Journal of the American Medical Association*, 307(5), 483-90.
- Paulson, G. D., & Roloff, M. E. (1997). The effect of request form and content on constructing obstacles to compliance. *Communication Research*, 24(3), 261-90.
- Quick, B. L., & Considine, J. R. (2008). Examining the use of forceful language when designing exercise persuasive messages for adults: A test of conceptualizing reactance arousal as a two-step process. *Health Communication*, 23(5), 483-91.
- Quick, B. L. & Stephenson, M. T. (2007). Further evidence that psychological reactance can be modeled as a combination of anger and negative cognitions. *Communication Research*, 34(3), 255-76.
- Reber, R., Winkielman, P., & Schwarz, N. (1998). Effects of perceptual fluency on affective judgments. *Psychological Science*, 9(1), 45-48.

- Rucker, D. D., Dubois, D., & Galinsky, A. D. (2011). Generous paupers and stingy princes: power drives consumer spending on self vs. others. *Journal of Consumer Research*, 37(6), 1015-29.
- Rucker, D. D. & Galinsky, A. D. (2008). Desire to acquire: Powerlessness and compensatory consumption. *Journal of Consumer Research*, 35(2), 257-67.
- (2009). Conspicuous consumption vs. utilitarian ideals: How different levels of power shape consumer behavior. *Journal of Experimental Social Psychology*, 45(3), 549-55.
- (2016). The agentic-communal model of power: Implications for consumer behavior. *Current Opinion in Psychology*, 10, 1-5.
- Rucker, D. D., Galinsky, A. D., & Dubois, D. (2012). Power and consumer behavior: How power shapes who and what consumers value. *Journal of Consumer Psychology*, 22(3), 352-68.
- Rucker, D. D., Hu, M., & Galinsky, A. D. (2014). The experience vs. the expectations of power: A recipe for altering the effects of power on behavior. *Journal of Consumer Research*, 41(2), 381-96.
- Sanders, R. E., & Fitch, K. L. (2001). The actual practice of compliance seeking. *Communication Theory*, 11(3), 263-89.
- Sela, A., Berger, J., & Liu, W. (2009). Variety, vice, and virtue: How assortment size influences option choice. *Journal of Consumer Research*, 35(6), 941-51.
- Smith, P. K., & Trope, Y. (2006). You focus on the forest when you're in charge of the trees: Power priming and abstract information processing. *Journal of Personality and Social Psychology*, 90(4), 578-96.
- Sobal, J., & Stunkard, A. J. (1989). Socioeconomic status and obesity: a review of the literature. *Psychological bulletin*, 105(2), 260-75.
- Thorpe, K. E., & American Public Health Association (2009). *The future costs of obesity: National and state estimates of the impact of obesity on direct health care expenses*. Minnetonka, MN: UnitedHealth Foundation.
- Wadhwa, M., & Zhang, K. (2015). This number just feels right: The impact of roundedness of price numbers on product evaluations. *Journal of Consumer Research*, 41(5), 1172-1185.
- Watson, D., Clark, L. A. & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-70.

Wiggins, J. S. (1991). Agency and communion as conceptual coordinates for the understanding and measurement of interpersonal behavior. In D. Cicchetti & W. M. Grove (Eds.), *Thinking clearly about psychology: Essays in honor of Paul E. Meehl, Vol. 1: Matters of public interest; Vol. 2: Personality and psychopathology* (pp. 89-113). Minneapolis, MN: University of Minnesota Press.