## Two Sides of Self-Enhancement in Consumer Word-of-Mouth

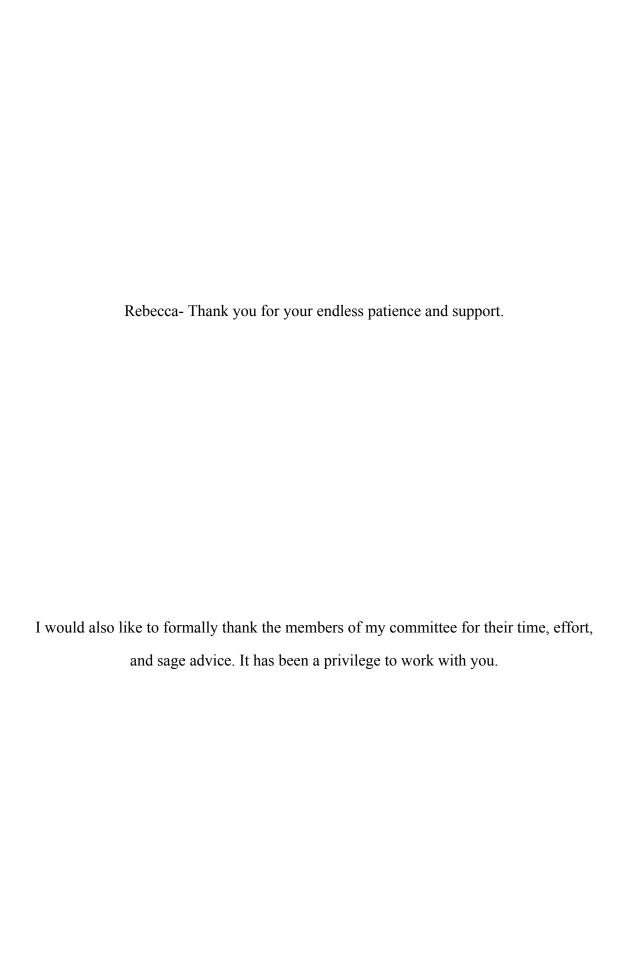
by

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Business Administration) in The University of Michigan 2012

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# Chapter 1

#### Introduction

Word-of-mouth, a form of interpersonal communication in which individuals share consumption-related information, has long been recognized as influential in a majority of purchase decisions (Dichter, 1966). The topic has received increased academic and managerial attention in recent years due to the explosion of word-of-mouth information shared in technology-enabled contexts (Dellarocas 2003; Godes et al., 2005). For example, one in four Americans now use online consumer product reviews at least monthly (Forrester Research Inc., 2010), and Americans have come to trust opinions shared by other consumers online second only to those of immediate friends and family (Nielsen, 2009; 2012). Firms are aggressively following consumers into this increasingly important persuasion space, with over \$2.5 billion expected to be spent enabling consumer word-of-mouth in 2012, an eight-fold (722%) increase from a decade prior (PQ Media 2009).

Following this renewed attention on word-of-mouth has come academic interest in the psychological motivations that drive people to generate, share, and consume word-of-mouth information. While the dominant driver for the creation and transmission of word-of-mouth behaviors is the altruistic exchange of useful information (Dennis et al., 1998; Hennig-Thurau & Walsh, 2004; Sundaram, Mitra & Webster 1998), more 'self-centered' motives in word-of-mouth transmission abound, from reducing post-purchase dissonance, helping or punishing a firm, expressing product involvement or managing one's own

social identity (Dichter, 1966; Engel, Blackwell & Minard, 1993; Hennig-Thurau et al., 2004; Sundaram et al., 1998).

Research examining the consequences of word-of-mouth on behavior has demonstrated the importance of a number of factors influencing persuasion, such as who shares the information (e.g., Naylor et al., 2011), how confidently they share it (e.g., Karmaker & Tormala, 2010), the kind of decision they are making (e.g. recommendations vs. evaluations; Gershoff, Broniarczyk, & West, 2001), or the specific domain in which the consumer seeks new information (Weiss, Lurie, & MacInnis, 2008). Talking about word-of mouth has even been shown to influence the source's future behavior (Moore, 2012). While these and other scholars have begun to examine psychological processes relevant to both the causes and consequences of word-of-mouth information, there is much opportunity for further research on this increasingly important source of persuasion (Berger, 2012).

The overall aim of this dissertation is to contribute new insight regarding a relatively under-examined motive in word-of-mouth transmission; self-enhancement, the desire to feel and be perceived favorably (Baumeister, 1998; Gibson & Oberlander, 2008). The research pursued in this dissertation examines antecedents and consequences of self-enhancement in word-of-mouth from the 'two sides' of this information exchange: source and recipient.

My first essay (Chapter 2) examines how knowledge beliefs motivate self-enhancement behavior in word-of-mouth transmission. I argue that (a) consumer knowledge can be conceptualized as a dynamic self-concept domain, (b) a perceived discrepancy between one's actual and ideal consumer knowledge is an aversive state, and (c) word-of-mouth transmission offers a self-enhancing means to compensate for this state. A series of lab experiments confirm that perceived discrepancies between an individual's actual and ideal consumer knowledge motivate them to compensate for this

perceived shortcoming by sharing their product opinions more with others. The effect is robust whether a knowledge discrepancy is operationalized at the level of the consumer or a specific product category. The studies provide additional evidence of the process by which compensatory word-of-mouth occurs using both individual difference and contextual moderators, and confirms mediation of the effect by the specific negative emotion linked to a self-discrepancy (Higgins, 1987). Differences in participant review writing effort, self-involvement, language complexity, and positivity of the review content further corroborate this essay's core prediction that knowledge-discrepant individuals self-enhance through word-of-mouth transmission.

My second essay (Chapter 3) examines the 'other side' of the word-of-mouth exchange. This essay builds on theory and findings in the source credibility, immodesty in self-presentation, and persuasion knowledge literatures to make predictions for how word-of-mouth recipients perceive and process self-enhancement by the source of word-of-mouth information. Moderators related to the source (Studies 1-2), environment or message (Study 3) can make uncertainty about word-of-mouth source's motives salient, causing immodest sources of product information to be distrusted by the recipient, impeding persuasion (Chapter 3).

Overall, these two essays provide compelling evidence that the self-enhancement motive is an important factor in the behavior of both the source and recipient of word-of-mouth information. The results of this research may be relevant to marketers who wish to improve the impact of consumer social influence pertaining to their own products, and to consumers who are concerned with how they influence and are influenced by others through word-of-mouth exchanges of product information. It is my hope that this dissertation will also lead to meaningful contributions to the marketing literature's understanding of the causes and effects of consumer-to-consumer persuasion, and spur other researchers to examine this important topic.

# Chapter 2

# Compensatory Word-of-Mouth: When Having "Less-than-Ideal" Consumer Knowledge Motives Knowledge Sharing

People who believe they are knowledgeable about products are driven to share this knowledge more with others. This tenet is central to research on word-of-mouth motivation (Engel, Kegerreis, & Blackwell, 1969; Feick & Price, 1987; Jacoby & Hoyer, 1981; Katz & Lazarsfeld, 1955; Keller & Berry, 2003) and consistent with Gricean maxims of quantity and quality—those who believe they possess a greater volume of useful information should make an appropriately weighted 'conversational contribution' by sharing it more with others (Grice, 1991). The word-of-mouth literature attributes the positive relationship between knowledge beliefs and knowledge sharing to desires for self-concept maintenance. People who think of themselves as particularly knowledgeable consumers (e.g., market mavens, opinion leaders) wish to maintain these positive self-concepts, and tend to share their opinions in order to do so (Dichter, 1966; Feick & Price, 1987; Hennig-Thureau et al., 2004; Wojnicki & Godes, 2012).

A prediction that follows from this research is that a perceived shortcoming in consumer knowledge should diminish the motivation to share word-of-mouth. Individuals who believe they are insufficiently knowledgeable about products might believe their product opinions are of limited use to others, and thus that they have less to share. Moreover, they may be reluctant to share their product opinions for fear of presenting themselves unfavorably to others (Schlenker, 1975). While recognizing this possibility, I

argue that a perceived deficiency in consumer knowledge relative one's ideals may bolster rather than suppress the desire to voice product opinions to others. Why might this occur?

Subjective consumer knowledge has been defined as what or how much a person thinks she or he presently knows about products, whether operationalized at the level of product category (e.g. Park, Mothersbaugh & Feick, 1994) or as the person's global store of consumer knowledge (e.g., Keller & Berry, 2003; Feick & Price, 1987). Extending this definition, I propose that subjective knowledge may be framed as a self-concept domain (Markus & Wurf, 1987), supporting the analysis of a more multi-faceted set of beliefs about one's own knowledge attributes or abilities. Examined under this theoretical lens, consumer knowledge beliefs may be linked not only to the present-state self, but also to "possible selves" one wishes for, desires, or aspires to be (Markus & Nurius, 1986).

Take a consumer who feels that she isn't very knowledgeable when it comes to fiction books. Prior research on subjective knowledge and word-of-mouth motivation predicts a simple effect-- she would be less likely to share her opinions about novels with others. However, if we treat her subjective knowledge as a self-concept domain, a more nuanced relationship between knowledge beliefs and information sharing might emerge. If the novice book consumer is content with her perceived low level of knowledge, she may indeed have little motivation to share her opinions about books. On the other hand, she may be dissatisfied with her perceived knowledge deficiency, wishing she knew more about books. To reduce the distance from this ideal state, she may go to some effort to become, or be seen as, more of a bibliophile than she thinks she is today. By sharing product information, she can signal a higher level of consumer knowledge to herself and/or others.

A similar dynamic could hold for someone who thinks of himself as a fairly knowledgeable consumer overall. While he may believe he is more expert than others, he

might also be keenly aware of gaps in his knowledge. Consequently, even this more knowledgeable consumer could perceive a shortcoming and feel the need to bolster his self-concept in this domain. I propose that word-of-mouth transmission offers a self-presentational means to this end.

In this chapter, I extend research on consumer knowledge by treating it as a self-concept domain and proposing a novel effect on one of its downstream consequences, word-of-mouth communication. I argue that word-of-mouth transmission sometimes depends not only what you *think* you know, but what you *wish* you knew. Contrary to the consumer knowledge and word-of-mouth literatures, I predict that perceived deficiencies in consumer knowledge sometimes increase rather than decrease word-of-mouth communications.

The next section discusses past research that guides my predictions. I then present four experiments that test this conceptualization and rule against alternative explanations. The paper concludes with a discussion of implications, shortcomings and future research opportunities on the behavioral consequences of discrepancies in consumer knowledge.

#### CONCEPTUAL DEVELOPMENT

Consumer Knowledge and Word-of-Mouth Transmission

The marketing literature has defined subjective knowledge as what or how much people think they know about products and objective knowledge as accurate stored consumption-related information (Brucks, 1985; Park & Lessig, 1981; Park, Mothersbaugh, & Feick 1994). This chapter focuses on subjective knowledge beliefs. The scope of subjective consumer knowledge content that has been described or investigated in this literature includes knowledge of brand or product names, product attributes or features, quality, price, distribution, and advertising information. Researchers have

investigated the impact of subjective knowledge on a broad range of behavioral consequences including search, information processing, and choice (e.g., Alba and Hutchinson, 1987; Bettman & Park, 1980; Brucks, 1985). Recent research regarding these consequences reports, for example, that consumers who believe they are knowledgeable in a consumption domain (e.g., nutrition) are more likely to locate themselves close to stimuli that are self-consistent with their perceived knowledge level (e.g., health food section), affecting their search strategies and choice (Moorman et al., 2004). Another investigation found that people's self-assessments of their knowledge or skill in a consumption domain (e.g., photography) is relied upon heavily in choice, leading them to choose products that they believe "match" their beliefs about their competence in that domain (Burson, 2007).

Research on consumer knowledge and word-of-mouth motivation similarly reports a self-consistent or "matching" relationship between subjective knowledge and information sharing. Dichter's (1966) foundational investigation on word-of-mouth motivation revealed that people who believed they possessed higher levels of consumer knowledge strive to maintain this belief by demonstrating their superiority, connoisseurship, and expertise through word-of-mouth. Research by Katz and Lazarsfeld (1955) and Engel et al. (1969) reports that opinion leaders and innovators both believe they possess higher levels of subject-specific (product category level) or generalized (individual level) consumer knowledge than others, and link this belief to the motivation to transmit word-of-mouth. Research on the market maven (Feick & Price, 1987) also asserts that consumers' beliefs that they are marketplace influencers stem from their beliefs about the relative quality and/or volume of generalized knowledge they possess. Recent survey and experimental investigations corroborate prior research in finding that, when it comes to the link between consumer knowledge beliefs and WOM transmission, how much you

talk about products is driven by how much you think you know about them (Gruen et al., 2006; Hennig-Thurau & Walsh, 2003; Wojnicki & Godes, 2012).

I emphasize three points from this brief discussion. First, as previously identified by Park and Lessig (1981, p. 223), research on subjective knowledge treats it as a present-state attribute set in the moment of the behavior under investigation. That is, what a consumer thinks or does at a given time depends on what they believe they know about products at that time. The present research proposes a more complex relationship between knowledge beliefs and one of its important consequences. Second, the relationship reported between subjective knowledge and its consequences is commonly found to be a simple positive one, in which higher levels of perceived knowledge lead to higher levels of the consequence. I will present evidence that a perceived discrepancy or shortcoming in subjective knowledge can be more strongly linked to intentions and behavior than one's perceived knowledge. Third, while research on search and choice as consequences of subjective knowledge have primarily focused on this construct at the product category level, the impact of subjective knowledge beliefs on word-of-mouth transmission has been examined primarily at the global level—over the full range of product categories in which a person might hold consumer knowledge beliefs. The present research bridges these literatures by demonstrating the impact of knowledge beliefs on behavior whether these pertain to the individual's global or category-level store of consumption-related information.

Consumer Knowledge as a Self-Concept Domain

A rich body of work in psychology examines the self-concept, defined as a person's ideas or theories about themselves (Baumeister, 1998). Prior to the 1980s, examinations of the self-concept assessed people's cognitions about who they are as stable representations that are unitary or "global" in nature (Markus & Wurf, 1987). This framing of the self-concept might include assessments of one's own generalized

competence, morality, or likeability, and result in a generalized level of regard towards the self. Markus and her colleagues made a notable contribution to this literature by proposing a self-concept that is more dynamic in nature. Under this conception, the self-concept is better described in the plural given its representation as a multi-faceted set of theories or schemas about the self across a multitude of domains, and in a multitude of contexts. A person's distributed network of self-concepts may include social roles and identities, emotional tendencies, or abilities and traits that vary in centrality and stability (McConnell, 2011). While central self-concepts are presumed to affect information processing and behavior most strongly, peripheral self-concepts also play this role when salient (Markus & Wurf, 1987).

Self-concepts also have temporal dimensions, describing not only who one is today, but also one's past and possible future selves (Carver & Scheier 1990; Markus & Nurius, 1986; Schlenker, 1980). Possible selves include the selves we hope to become (ideal self), the selves we should become (ought self), and the selves we fear becoming (feared self) (Markus & Nurius, 1986). Ideal self-concepts are particularly central in behavior regulation in that they represent the set of attributes we aspire to, hope for, or wish for ourselves. They act as goalposts for behavior, and provide an evaluative reference point for present selves (Baumeister, 1998; Carver & Scheier, 1990; Higgins, 1987). Previous research has examined the ideal self in consumption-related contexts. Landon (1974) synthesized early research investigating factors influencing whether individuals preferred and chose brand images congruent with one's actual versus ideal self. Schouten (1991) and Belk (1988) explored the notion of the motivational power of ideal selves in their sociological examinations of identity and consumption. A study assessing the relevance of possible selves to consumer research found that products, services and consumption activities are spontaneously generated in association with a person's "hoped-for" selves (Patrick, MacInnis, & Folkes, 2002). Pham and Avnet (2004) found that a focus on ideals increased consumers' reliance on affective responses to advertising, which they ascribed to the distinct regulatory system linked to attaining the ideal self.

Knowledge is a central facet in the self-concepts of many people (Bandura, 1986; Leary et al., 1994), and is among the most important contributors to global evaluations of the self (Marsh, 1986; Tafarodi & Swann, 1995). Therefore, it is surprising to find that consumer knowledge has received relatively little attention as a multi-faceted self-concept domain. In the present research, we attempt to address this gap by examining the relationship between two consumer knowledge self-concepts – consumers' beliefs about their present-state knowledge, which I describe as their "actual knowledge self-concepts" and consumers' hoped-for, wished for, or desired selves in the same domain, which I describe as their "ideal knowledge self-concepts."

Discrepant Self-Concepts: Affect and Behavioral Consequences

A core assumption of self-regulatory models of motivation is that perceptions of a person's discrepancies between their actual self-concept and an associated goal state (e.g., an ideal self-concept) have emotional and motivational significance. If the goal state is desirable, congruence between the present-state and goal produces positive emotion, while perceived shortcomings or discrepancies from the goal result in negative emotion. The aversive nature of discrepancies between present and goal states induces behaviors more consistent with the goal in an effort to reduce psychological distance to the goal state (Custers & Aarts, 2007; Higgins, 1987; Carver & Scheier, 1990). Perceived discrepancies between actual and ideal selves are associated specifically with dejection-related emotions (Higgins, 1987) that motivate cognitions or behavior to reduce the perceived distance from or increase the rate of progress toward the ideal state, thereby reducing this aversive affect.

Prior applications of self-discrepancy theory in consumer research have examined how discrepant self-beliefs that surface in other contexts impact preference and choice in

consumption contexts. For example, the magnitude of discrepancies between consumers' actual and ideal selves has been linked to impulse purchase behavior among people who acquire material goods to compensate for their perceived inadequacies (Dittmar, Beattie, & Friese, 1996). Individuals with high explicit self-esteem but low implicit self-esteem (a "self-esteem discrepancy") preferred self-enhancing (vs. non-enhancing) luxury products, ostensibly to compensate for the negative feelings associated with the self-esteem discrepancy (Park & Roedder John, 2010).

Indeed self-enhancement, efforts to present one's self more favorably (Gibson & Oberlander, 2008; Swann, Pelham, & Krull, 1989), is a common response to self-discrepancies. Such efforts may help those who perceive self-discrepancies to influence themselves—and others—to believe that their actual abilities are closer to their ideals. A desire to be seen as one's ideal self has been described as a fundamental motive of self-presentational behavior (Baumeister, 1982). So, while efforts to improve one's abilities (e.g., by acquiring more consumer knowledge) may be a normatively appropriate way to compensate for an unfavorable self-discrepancy, influencing perceptions of heightened abilities in the salient domain (e.g., sharing product information) represents an alternative means to the same end.

Previous investigations find that people compensate for self-discrepancies by acquiring symbolic indicators of desired statuses in salient self-concept domains. For example, those who believe they are low in power favor consumer goods that symbolize power (Rucker & Galinsky, 2008). Those who question their own intelligence compensate for this perceived deficiency by choosing products that support more positive views of their intelligence (Gao, Wheeler, & Shiv, 2008). Across several self-concept domains (e.g., careers, hobbies), those who lacked positive symbols of desired identities were especially motivated to acquire material indicators of these identities (Braun & Wicklund, 1989). While consumer researchers have focused on material possessions as

symbolic indicators of desired identities, other things also can symbolize desired identities (Wicklund & Gollwitzer, 1981). For instance, academics with weaker publication records are more likely than their more productive counterparts to include titles and/or degrees on email signatures (Harmon-Jones, Schmeichel & Harmon-Jones, 2009). People also have used surgery to reduce the distance between their actual and ideal selves (Schouten, 1991).

# Compensatory Self-Enhancement

A prime behavioral response to a discrepancy is self-enhancement, whereby people work to promote a more favorable impression of themselves (Gibson & Oberlander, 2008; Swann, Pelham & Krull, 1989). In doing so, the person may help influence others—and themselves—to believe their actual abilities are closer to their ideal. Indeed, one of the two fundamental motives of self-presentation has been described as a desire to become one's ideal self (Baumeister, 1982, p. 3). So while real effort to improve one's abilities (e.g., obtaining more consumer knowledge) might seem the normative way to compensate for an aversive self-discrepancy, constructing a private and/or public perception of heightened abilities (e.g., sharing more consumer knowledge) may be a less effortful means to the same end.

Building on theory regarding the importance of consumption-related symbols in supporting desirable self-concepts (Solomon, 1983), several investigations report that people compensate for deficient self-states by acquiring symbolic indicators of positive status in the salient self-concept domain. For example, people who feel low in power are more motivated to acquire goods that are associated with power (Rucker & Galinsky, 2008). Individuals who question their own intelligence compensate by choosing products that support more positive self-views (Gao et al., 2008). Across several self-concept domains, increased motivation to acquire material indicators of a desired identity was found among those most insecure in these identities (Braun & Wicklund, 1989).

While the above investigations describe how the consumer's acquisition of symbolic goods might help compensate for a perceived shortcoming in the self, there is relatively less empirical evidence that verbal consumer behaviors (such as word-of-mouth) may be pursued to the same end. Some support for verbal self-enhancement has been offered in Wicklund and Gollwitzer's symbolic self-completion theory ("SSC"; 1981). Using a more constrained framework than that of self-regulation-based theories of motivation, SSC proposes that people who are objectively less endowed in a high commitment domain (e.g., a vocation or hobby) may pursue a variety of alternative symbols to bolster their personal and social reality in that domain. For example, in the consumer realm, plastic surgery has been interpreted as an example of non-verbal SSC (Schouten, 1991). Other recent research applying the SSC framework found that academics with weaker publication records were more likely to include titles and/or degrees on email signatures as symbols of attainment (Harmon-Jones, Schmeichel & Harmon-Jones, 2009). As I discuss and directly test later in this chapter, a secondary contribution of this research is its extension of SSC in proposing that it is not merely the objective state of one's actual self, but the distance between their perceived self and an ideal that motivates compensatory behavior. A consequence of this is that this framework posits that one need not be objectively weak in the focal domain to be motivated to compensate for this through self-enhancement.

# Compensatory Word-of-Mouth

Three propositions follow from this brief review. First, subjective consumer knowledge can be viewed as a dynamic self-concept domain with behavioral consequences that stem from people's beliefs not only about their present knowledge (actual knowledge self-concept), but also about their desired knowledge (ideal knowledge self-concept). Second, consumers are likely to experience negative emotions when they perceive an unfavorable gap between their actual and ideal knowledge in the domain of

consumer knowledge (a knowledge discrepancy), thereby heightening their motivation to engage in behaviors that reduce the perceived distance between their actual and ideal knowledge in this domain. Third, as a symbolic indicator of consumer knowledge, word-of-mouth communication is a means by which consumers can minimize the psychological distance between their actual and ideal knowledge self-concepts and reduce the emotional discomfort associated with a knowledge discrepancy. That is, by sharing word-of-mouth information, consumers can signal an enhanced sense of their own consumer knowledge to themselves or others. Therefore, I hypothesize that efforts to engage in word-of-mouth communications will increase with the size of the discrepancy between one's actual and ideal consumer knowledge self-concepts.

**H1:** Intentions to share word-of-mouth information will increase with the discrepancy between individuals' actual and ideal consumer knowledge self-concepts.

## Overview of Empirical Studies

Four studies test this hypothesis and establish process evidence consistent with my compensatory word-of-mouth framework. The first study examines the behavior using the most commonly applied instrument for assessing consumer knowledge self-concepts and word-of-mouth, the market maven scale (Feick & Price, 1987). I also use this study to formally test the conceptual and empirical validity of the application of difference scores as commonly utilized in self-discrepancy theory's experimental paradigm. Study 2 replicates the core effect with a manipulated rather than measured consumer knowledge self-discrepancy at the product category level, and tests for moderation by lay theories regarding the self-enhancement benefits of sharing product opinions with others. Study 3 examines whether compensatory word-of-mouth is moderated by the extent to which the product category is symbolic, and therefore more instrumental in self-enhancement. This

study also seeks robustness by attempts to replicate the basic effect by manipulating a global rather than category-specific consumer knowledge discrepancy. The third study also tests mediation of the core effect by dejection, the specific negative emotion linked to a discrepancy between ideal and actual self-concepts (Higgins, 1987). In Study 4, I seek further evidence of robustness by exploring the effect in a different context and using different dependent variables. Specifically, Study 4 investigates how knowledge discrepancies affect the contents of movie reviews written by research participants.

#### STUDY 1

In Study 1, I assess the compensatory word-of-mouth hypothesis (H1) applying the market maven scale (Feick & Price, 1987), the most commonly cited self-concept pertaining to the consumer's tendency to possess and disseminate consumer knowledge. My use of this scale is motivated by its centrality to the word-of-mouth motivation literature. I adapt the scale anchors to produce two separate indexes—one each for the extent to which the same person believes they are (actual self) versus would like to be (ideal self) a market maven. I predict that the magnitude of the discrepancy between the two measures will be positively related to a person's motivation to share their own product opinions with others.

I submit these measures to a series of statistical tests recommended by Peter, Churchill and Brown (1993) and Edwards (1994; 2001). While consumer research applying the self-discrepancy paradigm specifically (e.g., Pham & Avnet, 2004; Sela & Shiv, 2009) and difference scores generally (e.g., White & Dahl, 2007; Zhang & Khare, 2009) has not applied these tests, I do this to establish validity before proceeding to more straightforward analyses in Studies 2 and 3.

Method

One hundred and two panelists (62 female) from a U.S. online panel completed the study for a small cash payment. Participants were first told they had been randomly assigned to test the consumer product opinions feature of an online retailer. To provide participants with an imagined audience for their opinions, they were informed that after writing these opinions, they could share them via email with people they knew. This cover story replicates the "Share" button that now appears on the product pages of most online retailers. At retail websites from Amazon to Zappos.com, consumers are invited to share their product opinions with people they know via email, Facebook, or Twitter. Study participants were invited to share their product ratings from one of ten categories available at the fictional retailer's site (based on top categories at Amazon.com as of January 2011). After choosing a category, participants indicated the number of products they wished to rate (min = 0, max = 10), my dependent measure of the motivation to transmit word-of-mouth in this study. Ratings and email addresses were not collected.

In ostensibly unrelated research, participants later responded to both the original and adapted "ideal-self" versions (order counterbalanced) of the first five of six items from Feick and Price's (1987) market maven scale. I removed the sixth scale item as it explicitly describes the market maven as a self-concept and so seemed highly susceptible to hypothesis guessing in our repeated measures context. The actual scale version of the items was identical to those in the original scale. The adapted ideal version asked participants to indicate the extent to which the statements, "related to the kind of person you would ideally like to be," with scale anchors adjusted to reflect ideal rather than actual self-descriptions.

#### Results and Discussion

Market Maven Scale. Each of the two versions of the scale was summed to produce actual- and ideal market maven self-concept scores. Scale reliability was strong for the reduced five-item scale in both actual ( $\alpha = .90$ ) and ideal ( $\alpha = .95$ ) forms. Consistent

with procedure from the self-discrepancy paradigm, the two scores were then differenced (ideal – actual) to produce the discrepancy score (M = .59, mix = -9, max = 10, SD = 2.78). Measurement order of the actual versus ideal scales had no effect on the actual-self, ideal-self, or discrepancy measures (Fs < 1). Following the recommendations of Peter et al. (1993), I applied Johns' (1981) test of the reliability of a difference score given that they are inherently less reliable than their component variables. Reliability for the market maven discrepancy measure passed the standard threshold of .70 ( $r_D$  = .75). As expected in the use of differences scores (Johns, 1981), the underlying components of the discrepancy measure were highly correlated (r = .81).

Category Rated. The product categories most frequently selected for rating were Books (19.6%), Movies (16.7%), Music (14.7%), and Home & Garden (11.8%). All six other categories<sup>1</sup> were selected by fewer than 10% of participants. There was neither a main effect for product category on the number of products rated (F < 1) nor an interaction of the measured shortcoming (self-discrepancy) in mavenism and product category selected on the number of products rated (F(2, 89) = 1.17, NS). As a result, findings are collapsed over product categories. I recognize that the absence of category-level effects may be due in part to low power (n = 20 for the most-rated Books category). Category-level effects are investigated further in Study 3.

*Main Results*. Table 2.1 summarizes the results of the Edwards (1994) tests of algebraic difference indices.<sup>2</sup> Responses to the base market maven scale indicate a positive and marginally significant relationship between participants' actual mavenism self-concept and the number of online product ratings shared with others ( $\beta = .11$ , t(100))

<sup>1</sup>Other categories: "Computers", "TV & Home Theater", "Camera, Photo & Video"," Grocery, Health & Beauty", "Toys, Kids & Baby" and "Sports & Outdoors".

<sup>&</sup>lt;sup>2</sup> Under this procedure, research leveraging difference scores is conceptually and empirically tenable if six tests are passed. First, each of the two components underlying the difference score should be independently related to the outcome (tests 1-2). Next, when entered into the model simultaneously, coefficients for the two components should both remain significant (test 3), be opposite in sign (test 4), and not be significantly different in absolute magnitude (test 5). Finally, the two-factor model should explain a greater proportion of variance than either of the independent component models (test 6).

= 1.68, p < .10). The adapted "ideal mavenism" scale similarly exerted a positive effect on product ratings shared ( $\beta = .19$ , t(100) = 3.66, p < .01). All three tests of the simultaneous predictor model are passed. When entered into the model simultaneously, both actual and ideal mavenism were significantly related to the number of product ratings shared, but in opposing directions. Actual mavenism was negative and significant  $(\beta = -.22, t(99) = -2.07, p < .05)$  while ideal mavenism was positive and significant  $(\beta =$ .34, t(99) = 3.87, p < .01). Applying Cohen and Cohen's (1983, pp. 479-50) test for a difference between partial regression coefficients from the same sample confirms no difference in effect size between actual and ideal mavenism (t(99) < 1). There is a significant increment in variance explained between the stronger of the two independent components (r-squared = .11, column 2) and the simultaneous model (r-squared = .14, column 3; F(2, 99) = 3.22, p < .05), supporting an improvement in fit for the difference score model relative to the model for ideal mavenism alone. Finally, having fulfilled all tests of the Edwards procedure, the regression coefficient for the difference between these two components (ideal – actual) as a single predictor is significant and positive ( $\beta$  = .34, t(100) = 3.77, p < .01; column 4). It is only this last measure that has been used in prior consumer and social psychology research in the self-discrepancy paradigm, and that will be reported in subsequent studies.

TABLE 2.1

MARKET MAVEN DISCREPANCY (EDWARDS TESTS)

Independent variables	1	2	3	4
5-item mavenism				
Actual-self	0.11 (0.07)	+	-0.22 * (0.11)	
Ideal-self		0.19 ** (0.05)	0.34 ** (0.09)	
Self-discrepancy				0.34 **
				(0.09)
R <sup>2</sup>	0.02	0.11	0.14	0.12

Dependent variable: Number of Product Ratings Shared. Standard errors in parentheses.

\*\*p< .01, \*p< .05, +p< .10

Discussion. This study provides preliminary support for our compensatory word-of-mouth hypothesis (H1). I replicate past findings of a link between the actual market maven self-concept and word-of-mouth transmission, and extend this by uncovering a significant relationship between online word-of-mouth transmission and the magnitude of a perceived shortcoming in "mavenism." Most notably, the magnitude of the discrepancy between the extent to which consumers believe they are and ideally would be possessors and disseminators of product knowledge (market mavens) was significantly more predictive of knowledge sharing than either component alone. Finally, the application of Edwards' multi-step regression procedure validates the use of difference scores in the present research.

A possible alternative to the discrepant self-concept explanation for compensatory word-of-mouth is that aspiration level (ideal mavenism) alone is responsible for the effect. The goal aspiration literature is, of course, grounded in self-regulatory theories of motivation (Austin & Vancouver, 1996). Whereas some studies manipulate compensatory behavior by reducing actual self-concepts (e.g., low power; Rucker &

Galinsky 2008) and others elevate ideal selves (e.g., Pham & Avnet, 2004), the literature supports the notion that the cognitive contrast between the two selves should be most predictive of compensatory behavior. Note however that, as reported above, the discrepancy (Table 2.1, column 3) explained significantly more variance than ideal mavenism alone (Table 2.1, column 2), weakening support for this alternative. In Studies 2 and 3, I shed additional light on this alternative versus the discrepancy framework.

A shortcoming of Study 1 is that when applied in a manner consistent with prior research on word-of-mouth motivation, the market maven construct presupposes a relationship between an individual's subjective consumer knowledge itself and an inherent "enjoyment" or "liking" of sharing this knowledge with others (scale items 1 and 2; see Appendix). In making this assumption, the scale confounds what may be a distinct source of motivation-- positivity towards sharing consumer knowledge-- with beliefs about the nature of this knowledge. In Studies 2 and 3, I isolate and manipulate the consumer knowledge self-concept variable directly to avoid this potential confound.

#### STUDY 2

Study 2 seeks to replicate the compensatory word-of-mouth effect (H1) using a manipulated discrepancy in consumer knowledge self-concepts (hereafter a "consumer knowledge discrepancy"), and offer initial process evidence supporting a self-enhancement explanation for the behavior. Prior research has proposed that people share product knowledge to bolster their self-esteem. Market mavens are said to pass on information in part because it makes them feel good about themselves (Walsh et al., 2004). Dichter's articulation of the self-involvement motive described interview participants who said that knowing others might follow their product recommendations makes them "feel good" or confirms their status as a pioneer (Dichter, 1966, p. 150).

Similarly, a survey regarding word-of-mouth at consumer opinion websites revealed a self-enhancement factor describing participants who agreed that they "feel good" and demonstrate their cleverness by posting product opinions online (Hennig-Thurau et al., 2004). Other research echoes these findings in domains unrelated to word-of-mouth, revealing that people believe that attempting to teach others about a high-commitment hobby or profession helps them advance towards a more positive self-concept in that domain (Wicklund & Gollwitzer, 1981, study 4). This reasoning leads to hypothesis 2:

**H2**: The positive relationship between a consumer knowledge discrepancy and online word-of-mouth intentions will be amplified (attenuated) among those who believe (do not believe) that sharing their product knowledge with others is self-enhancing.

As discussed earlier, attempted influence has previously been identified as one potential means of "self-symbolizing" by those who possess low standing in a self-relevant domain (Wicklund & Gollwitzer, 1981). Notably, tests of SSC theory are concerned with the self-symbolizing behaviors of individuals with low levels of objective experience. In contrast, the self-discrepancy based approach investigates perceived shortcomings that may exist at any level of objective experience or knowledge. In this sense, a self-proclaimed expert may be just as likely to compensate for a perceived shortcoming as the novice. Support for this approach includes research in which experts who are particularly well-equipped to "know what they don't know" were as likely as novices to perceive their own intellectual shortcomings (Kruger & Duning, 1999). This approach is also supported by findings that people with high explicit self-esteem but low implicit self-esteem (a "self-esteem discrepancy") prefer self-enhancing (vs. non-enhancing) luxury products, ostensibly to compensate for the negative feelings associated with the self-esteem discrepancy (Park & Roedder John, 2010). As part of the analysis for Study 2, I condition the main analysis on a measure of objective knowledge captured

independently of the consumer knowledge self-concept measures to test the selfdiscrepancy framework against the predictions of SSC theory.

#### Method

Study 2 manipulates a knowledge discrepancy (high vs. low) in a single product category and measures the belief that sharing word-of-mouth online is self-enhancing. Sixty-four undergraduates (28 female) from a Canadian university participated in the study in exchange for course credit. As in Study 1, participants completed a website feature testing procedure. First, to control for category involvement, I fixed the focal category for both the knowledge discrepancy manipulation and the dependent measures to music products, one of the most frequently selected categories from Study 1.

Participants were told they would complete tasks related to features of a retail website. First, participants were assigned to test the website's music trivia game. This entailed responding to seven factual, multiple-choice questions about popular music selected for general familiarity among undergraduates. Multiple-choice tests of factual information have been applied previously as an objective measure of category knowledge (Park et al., 1994). After completing the trivia game, participants estimated how many of the seven questions they had answered correctly, providing a measure of confidence in this knowledge.

Under a cover story of collecting survey information related to the trivia game testing, a self-discrepancy in music category knowledge was manipulated using a validated method (cf., Higgins & King 1981; Higgins et al., 1986, study 2). This procedure primes participant ideals in a salient domain to increase the accessibility of ideal self-conceptions in the high discrepancy condition, and primes the participant's actual self-conceptions in the low discrepancy condition.

Following Higgins et al.'s (1986) procedure, participants in the low discrepancy condition completed three essay tasks describing: (1) how "savvy" you actually are as a

consumer of music, (2) up to 10 attributes you believe you actually possess as a music consumer, and (3) any change over the years in how knowledgeable you actually are about music. The high discrepancy condition asked participants to describe ideal levels for the same three tasks (e.g., describe how "savvy" you *ideally would be* as a consumer of music). Full priming task instructions are provided in the Appendix. After the manipulation tasks, participant's actual and ideal subjective knowledge of the music category was measured (order counterbalanced). The actual (ideal) subjective knowledge measures asked the extent to which they agreed: "I am (wish I was more) knowledgeable about music generally," "I am a savvy (would like to be a savvier) music consumer," and "I am (would ideally be more) well informed about music products and services" (1 = not at all, 7 = very much; actual vs. ideal item order was counterbalanced).

Participants were then asked to test the website's product reviews feature, for which they were told, "You'll provide a star rating and be able to share your knowledge about music products (artists, albums or songs) of your choosing." As in Study 1, participants were asked to indicate how many products they wished to rate/review (min = 0, max = 7). Participants were also invited to list the first names of people with whom they would be sharing their product opinion by email as part of the research (min = 0, max = 7). This measure is again based on the online "Share" feature, used to encourage consumers to transmit word-of-mouth on the product pages of most retail websites. A count of first names submitted for the Share feature offers a second dependent measure of word-of-mouth intentions. Finally, to test our prediction regarding the belief that sharing word-of-mouth online is self-enhancing (H2), participants indicated the extent to which they thought sharing product opinions with others online did each of the following: "Helps me feel like a more knowledgeable person," "Boosts my self-esteem," and "Leaves me feeling good about myself" (1 = "not at all", 7 = "very much").

Results and Discussion

Priming Checks and Knowledge Self-Concepts. The mean of the three actual ( $\alpha$  = .84) and ideal ( $\alpha$  = .81) category knowledge priming check items were differenced to form the knowledge discrepancy score ( $r_D$  = .79). Participants assigned to the high discrepancy condition (ideal prime) reported a significantly higher category knowledge discrepancy (M = 1.21) than those in the low discrepancy (actual prime) condition (M = .02; F(1, 61) = 7.50, p < .01), supporting condition assignments. In terms of the knowledge discrepancy's underlying components, consistent with expectation, participant's ideal category knowledge self-concept was higher for those receiving the ideal prime (M = 5.14) than the actual prime (M = 4.08; F(1, 61) = 10.55, p < .01). There was no difference in participant beliefs regarding their actual (subjective) category knowledge by priming condition ( $M_{\rm ideal \ prime}$  = 3.94,  $M_{\rm actual \ prime}$  = 4.06; F < 1). Order of presentation of the actual versus ideal knowledge self-concept measures did not effect the manipulation (F < 1). There was no crossover effect of the knowledge discrepancy prime on the belief that sharing word-of-mouth online is self-enhancing (F < 1).

As to the trivia game, which is our measure of objective knowledge, participants correctly answered an average of 2.59 questions (SD = 1.32), and estimated they had answered 2.75 (SD = 1.20) correctly. The mean of the quotient of these two items across participants (actual / estimated correct – 1 = .10) suggests they were fairly well calibrated (Alba & Hutchinson, 2000) in terms of confidence in their knowledge estimates. The correlation of the objective knowledge measure with our actual (subjective) knowledge measure also indicates a positive relationship (r = .39, p < .01), at a level similar to that reported in Carlson et al.'s (2009) consumer knowledge meta-analysis.

*Main Results*. OLS regressions were used to assess how music knowledge discrepancy, the belief that sharing online product reviews is self-enhancing (average of three items as a mean-centered continuous variable ( $\alpha = .85$ )), and the interaction of these terms impacted our two dependent measures. First, I examined the number of product

reviews shared dependent measure, which revealed a marginally significant main effect of knowledge discrepancy condition ( $\beta$  = .37, t(61) = 1.80, p < .10), a significant effect of self-enhancing beliefs ( $\beta$  = .55, t(61) = 3.54, p < .01), and a significant interaction of discrepancy by self-enhancing beliefs ( $\beta$  = .33, t(61) = 2.11, p < .05; Figure 2.1A).

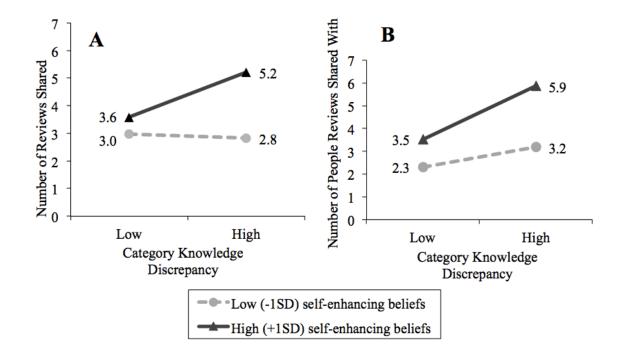
Planned comparisons examine the slope of knowledge discrepancy condition at one standard deviation above and below the mean of self-enhancing beliefs. At high self-enhancing beliefs (+1SD), there was a significant and positive slope of knowledge discrepancy ( $\beta$  = .81, t(61) = 2.77, p < .01). In contrast, there was a non-significant negative slope at low self-enhancing beliefs ( $\beta$  = -.07, t(61) < 1; see Figure 2.1A). That is, a perceived shortcoming (discrepancy) in music knowledge led people who strongly believed (+1SD) that sharing product reviews was self-enhancing to share more reviews ( $M_{\text{high discrepancy}}$  = 5.21 vs.  $M_{\text{low discrepancy}}$  = 3.59). However, there was no difference by knowledge discrepancy condition among those who did not believe that sharing word-of-mouth was self-enhancing ( $M_{\text{high discrepancy}}$  = 2.83 vs.  $M_{\text{low discrepancy}}$  = 2.98 at -1SD).

A similar pattern was observed for the number of people with whom these product reviews were to be shared. Main effects for knowledge discrepancy ( $\beta$  = .81, t(61) = 4.01, p < .001) and self-enhancing beliefs ( $\beta$  = .72, t(61) = 4.74, p < .001) were qualified by a marginal interaction of the two ( $\beta$  = .27, t(61) = 1.75, p < .10). Planned comparisons reveal that at high self-enhancing beliefs (+1SD) there was a significant positive slope of knowledge discrepancy ( $\beta$  = 1.17, t(61) = 4.06, p < .001) such that participants in the high discrepancy condition intended to share their opinions with more people (M = 5.86) than those in the low discrepancy condition (M = 3.52). In contrast, the slope of discrepancy condition was positive but non-significant given low self-enhancing beliefs (M<sub>high discrepancy</sub> = 3.18 vs. M<sub>low discrepancy</sub> = 2.30;  $\beta$  = .44, t(61) = 1.54, NS; Figure 2.1B). Thus, while there was only a marginally significant difference in the slope of knowledge

discrepancy at high versus low self-enhancing beliefs, we observe a pattern of means similar to that of the first dependent measure.

FIGURE 2.1

MODERATION BY BELIEF IN SELF-ENHANCING BENEFIT OF SHARING WOM



Conditioning on Objective Knowledge. Regression including the mean-centered trivia game score (proxy for objective knowledge) as a covariate revealed a positive main effect for objective knowledge on both the number of reviews shared ( $\beta$  = .61, t(61) = 3.60, p < .01) and the number of people the reviews were to be shared with ( $\beta$  = .69, t(61) = 4.15, p < .01) but no two or three-way interactions between objective knowledge and either independent variable (all ts < 1, all ps > .30). After accounting for objective knowledge, there remains a main effect for knowledge discrepancy ( $\beta$  = .41, t(61) = 1.88, p < .10), a main effect for self-enhancing beliefs ( $\beta$  = .61, t(61) = 3.60, p < .01), and an interaction of the two ( $\beta$  = .36, t(61) = 2.10, p < .05) for the number of reviews shared. The same analysis for the number of people the reviews were shared with also replicates

the pattern previously reported without the objective knowledge covariate-- a main effect for knowledge discrepancy ( $\beta$  = .80, t(61) = 3.75, p < .001), a main effect for self-enhancing beliefs ( $\beta$  = .69, t(61) = 4.16, p < .001), and a marginal interaction of the two ( $\beta$  = .29, t(61) = 1.75, p < .10). In short, compensatory word-of-mouth did not depend on or interact with objective knowledge level.

Alternatives. An alternative explanation for these findings might be that the manipulation of a perceived shortcoming in music knowledge negatively impacted category knowledge confidence. Shaken confidence in a self-relevant domain has been shown to lead to compensatory responses such as proselytizing (Gal & Rucker, 2010) and exhibiting a preference for self-bolstering symbolic objects (Gao et al., 2008). If the manipulation affected knowledge confidence, we should expect lower subjective knowledge estimates from individuals who had previously been primed with a knowledge discrepancy relative to those who were not. However, the actual knowledge self-concept did not differ between the high (M = 3.94) versus low (M = 4.06) discrepancy conditions (F < 1).

Additionally, as examined in Study 1, aspiration level alone (ideal consumer knowledge) may have produced the goal motivation, making our self-discrepancy framework overly complex. However, there were no significant effects for the ideal subjective knowledge measure alone on either dependent measure (ts < 1.40, ps > .15).

Based on the literatures on WOM motivation and Gricean norms, we should expect the actual knowledge self-concept model to be positively related to the motivation to share product knowledge in our studies. Indeed, research on the use of difference scores such as those leveraged in self-discrepancy research suggests that both of the underlying constructs (e.g., actual and ideal consumer knowledge self-concepts) should be significantly related to the focal dependent measure (Edwards, 1994; Johns, 1981). A significant increment in variance explained also should be observed for the difference

score model (as a simultaneous two-factor regression model) over OLS regression models for the two underlying components (Edwards 1994). Accordingly, I assess the incremental contribution of the knowledge discrepancy construct by comparing the knowledge discrepancy model to models containing continuous measures of the actual and ideal knowledge self-concepts as predictors of the number of music reviews to be shared and the number of people with whom these reviews were to be shared.

Replicating Study 1, the discrepancy model explained more variance than either the actual or ideal subjective knowledge measures alone for the number of ratings shared dependent variable (r-squared for actual, ideal, and discrepancy models = .18 (p < .05), .14 (p < .10), and .23 (p < .05) respectively; increment in r-squared from actual to discrepancy (F(2, 61) = 3.96, p < .05). The same was true for the number of people the ratings were shared with dependent measure (r-squared for actual, ideal, and discrepancy = .25, .23, and .40 respectively (all ps < .05); increment in r-squared from actual to discrepancy (F(2, 61) = 15.25, p < .001). Therefore, the knowledge discrepancy measure is a better predictor of word-of-mouth intentions than either the actual or ideal knowledge self-concept measures alone.

Discussion. This study provided additional support for the compensatory word-of-mouth hypothesis using: (a) a manipulated rather than measured consumer knowledge discrepancies, (b) a category-specific measure of consumer knowledge, and (c) two different measures of word-of-mouth motivation. In addition, this study offers initial process evidence consistent with a compensatory self-enhancement explanation. Given higher (lower) beliefs in the self-enhancing benefits of sharing word-of-mouth online, the effect of a knowledge discrepancy on the intention to write and share product reviews was increased (attenuated to non-significance). The study also found that the effect was not limited to those who were poorly-endowed with objective knowledge as symbolic self-completion theory implies. Lastly, while both actual and ideal knowledge self-

concepts predicted the motivation to transmit WOM, the discrepancy between the two knowledge self-concepts offered greater explanatory power than did either the actual or ideal knowledge self-concept alone.

#### STUDY 3

In Study 3, I test a potential moderator of compensatory word-of-mouth behavior the symbolic properties of the product category in which consumers share their knowledge. There is extensive theory and evidence supporting the self-concept value of product symbolism, defined as the degree to which products communicate something about the user (Sirgy, 1982). Symbolic products have the capacity to reinforce or support the ideal self (Landon, 1974; Malhotra, 1988) and communicate a desired identity in social interactions (Berger & Heath, 2007; Solomon, 1983). In the word-of-mouth context, activation of self-presentational goals has been found to increase word-of-mouth for symbolic ("self-related") but not functional products (Chung & Darke, 2006). In another study, Cheema and Kaikati (2010) found that individuals high in need for uniqueness intended to share fewer recommendations for symbolic goods consumed in public than in private due to the ability of the former to convey identity-related information. Related social comparison research has revealed that boasting about a purchase is more likely to occur with symbolic than functional goods (Sengupta, Dahl & Gorn, 2002), because the former can be leveraged to support the expression of a hopedfor or desired consumer identity. Building on these findings, if an individual compensates for a perceived shortcoming in her consumer knowledge by sharing more word-of-mouth, the behavior should occur primarily in product categories that facilitate self-symbolizing (higher symbolic involvement) relative to more functional or utilitarian categories. In sum, I hypothesize the following:

**H3**: The increased motivation to share product opinions due to a perceived shortcoming in consumer knowledge will be attenuated with utilitarian product categories.

Second, I use this study to assess the affect-based mediator that should underlie the motivation to compensate for a perceived discrepancy in consumer knowledge. Self-regulatory theories argue that when people perceive a discrepancy between a present state and a desirable reference value, they experience negative affect due to the perceived distance from (Higgins, 1987, Markus & Nurius, 1986) or insufficient progress towards (Carver & Scheier, 1990) the reference value. Higgins and his colleagues demonstrate that a belief that one's own attributes fall short of personal desires, wishes or ideals is specifically associated with aversive feelings of disappointment and dissatisfaction, which the authors described as dejection-based affect (Higgins, 1987; Higgins et al., 1986; Strauman & Higgins, 1987). This negative affect acts as the impetus for behaviors or cognitions to reduce the perceived discrepancy. I hypothesize that:

**H4**: The relationship between a consumer knowledge discrepancy and the motivation to share product opinions online will be mediated by dejection-related affect, but only when the product category is more (vs. less) symbolic.

### Method

One hundred and fifteen undergraduate students (78 females) from a U.S. university completed the study for course credit and were randomly assigned across four conditions in a 2 (consumer knowledge discrepancy: high, low) x 2 (product category symbolic involvement: high, low) factorial design.

The procedure was identical to that of Study 2 with the following exceptions. The product categories for which participants would be able to share their word-of-mouth by condition were varied to support the category symbolic involvement variable. As such,

for procedural consistency across conditions, self-discrepancy in consumer knowledge was manipulated at the consumer rather than category-level using the same priming method as in Study 2 (see Appendix for detail). As discussed previously, while the consumer knowledge literature emphasizes this construct at the product category level, the word-of-mouth motivation literature commonly examines it at the level of the individual (e.g. the market maven). This broader prime may also be said to offer a more conservative assessment of the main effect given the manipulation is not targeted to a specific underlying category of consumer knowledge. Following the manipulation, under the cover story of a mood control, participants responded to six items from the MAACL (Zuckerman & Lubin, 1965) commonly used to assess the presence of dejection-related affect in research related to self-discrepancy theory ("disappointed," "discouraged," "gloomy"; reverse items: "happy," "satisfied," "proud").

Participants next completed the same website feature testing study as in Studies 1 and 2, except they were now assigned to conditions in which they chose one of either three high (books, music, movies) or low (toothpaste, dish soap, laundry detergent) symbolic involvement product category to review. Product categories were selected based on their possession of high or low symbolic self-concept relevance in prior research (Berger & Heath, 2007; Landon, 1974; Patrick, MacInnis, & Folkes 2002). Replicating Study 2, participants were asked to indicate how many products they wished to review, and then to list the first names of the people with whom they would later share their reviews by email. Lastly, Jain and Srinivasan's (1990) multi-dimensional involvement scale was captured to confirm that product category symbolic involvement was consistent with condition assignment and to test for differences in other involvement dimensions that could represent alternative explanations for the results.

#### Results and Discussion

Manipulation Check and Knowledge Self-Concepts. The three manipulation check

items for actual ( $\alpha$  = .88) and ideal ( $\alpha$  = .85) consumer knowledge were averaged and differenced (ideal – actual) to produce the knowledge discrepancy measure ( $r_D$  = .78). The priming procedure was successful: participants assigned to the high knowledge discrepancy level condition had a significantly higher difference score (M = .60) than those in the low level condition (M = -.12; F(1, 113) = 4.88, p < .05). In terms of the components underlying the discrepancy, participant's ideal product category knowledge was again higher for those receiving the ideal (M = 5.43) than the actual prime (M = 4.82; F(1, 113) = 7.35, p < .01). As in Study 2, I checked whether the knowledge discrepancy manipulation affected actual (subjective) product category knowledge to assess a knowledge confidence account for our results. There was again no difference in actual subjective knowledge estimates for those assigned to the high (M = 4.83) versus low (M = 4.94) knowledge discrepancy conditions (F < 1), failing to support this alternative.

Dejection-based Affect. The mean of the six dejection-based affect items ( $\alpha$  = .83) was subjected to ANOVA to confirm its presence given a self-discrepancy in consumer knowledge. As expected, there was a main effect for the discrepancy prime (F(1, 113) = 6.17, p < .05), but no effects for product category or the discrepancy by product category interaction (Fs < 1). Dejection-based affect was higher for those assigned to the ideal knowledge prime condition (M = 2.67) than those in the actual knowledge condition (M = 2.26, F(1,113) = 4.92, p < .05).

Symbolic Involvement. Means of the three-item Jain and Srinivasan (1990) symbolic involvement scale measure ( $\alpha$  = .78) were significantly higher for the high (M = 4.94) than low symbolic involvement product categories (M = 3.60; F(1, 113) = 28.34, p < .001), and both were different from the scale midpoint of four (ps < .05). Differences in symbolic involvement among the three product categories available to review within each condition were not significant (condition x product category interaction; F(4, 109) = 1.58, NS). Means for the individual classes were as follows (high symbolic involvement: books

= 5.88, music = 4.71, movies = 4.81; low symbolic involvement: toothpaste = 3.71, dish soap = 3.61, laundry detergent = 3.10).

In terms of the other Jain and Srinivasan (1990) scale dimensions, the product category groupings also differed on pleasure ( $M_{\text{high symbolic}} = 5.45 \text{ vs. } M_{\text{low symbolic}} = 3.87$ ; F(1, 113) = 41.40, p < .001) and personal relevance ( $M_{\text{high symbolic}} = 5.04 \text{ vs. } M_{\text{low symbolic}} = 3.63$ ; F(1, 113) = 37.16, p < .001). Both of these results are consistent with the hedonic and symbolic properties intended to distinguish product category assignment. The product category groupings did not differ on Jain and Srinivasan's risk probability or risk importance dimensions (Fs < 1). These measures are expected to relate in part to the category's perceived financial (price-related) risk. Since the specific product category selected by participants and its interactions were not significant for either dependent measure (all ps > .10), this factor was omitted from further analysis.

Another possible concern would be that the high knowledge discrepancy condition (ideal prime) might prime product category involvement. However, there was no relationship between the ideal self-concept measure and product category involvement for any of the involvement dimension scales (all Fs < 1).

*Main Results*. A two-way ANOVA of knowledge discrepancy condition and category symbolic involvement on the number of product reviews shared found a significant interaction (F(1, 111) = 8.92, p < .01) with no main effects. The same analysis for the number of people with whom the product reviews were to be shared uncovered a similar interaction (F(1, 111) = 5.37, p < .05) and no main effects.

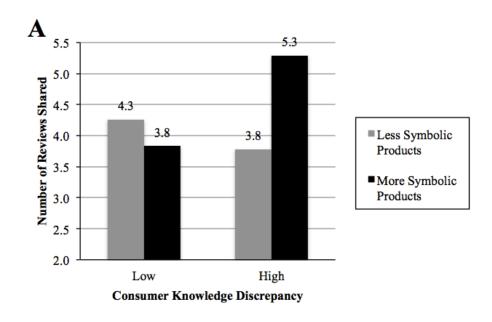
Hypothesis 1 is again replicated given a high symbolic involvement category to rate. Participants in the high knowledge discrepancy condition intended to share more product reviews (M = 5.29) than did those in the low discrepancy condition (M = 3.83; F(1, 51) = 4.47, p < .05). However, given low symbolic involvement categories to rate, there was no difference in the number of reviews to be shared across knowledge discrepancy

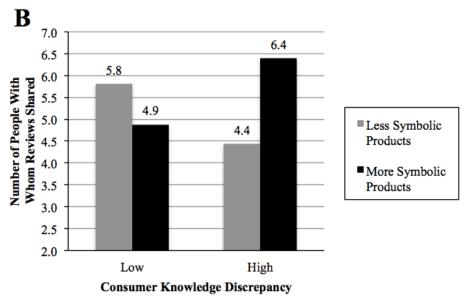
conditions ( $M_{\text{high discrepancy}} = 3.78$ ,  $M_{\text{low discrepancy}} = 4.26$ ; F < 1), supporting Hypothesis 3 (see Figure 2.2, panel A).

A similar pattern was observed for the number of people with whom the participant's reviews were to be shared (Figure 2.2, panel B). Given a high symbolic involvement category, participants in the high discrepancy condition shared their review(s) with more people (M = 6.39) than those in the low discrepancy condition (M = 4.88; F(1, 61) = 5.08, p < .05). This pattern was reversed in the less symbolic categoriesthose primed with a high discrepancy shared their reviews with slightly fewer people (M = 4.44) than those in the low discrepancy condition (M = 5.81; F(1, 61) = 4.07, p < .05).

As examined in Studies 1 and 2, I test whether aspiration level alone (ideal consumer knowledge) may have produced the goal motivation, making our self-discrepancy framework unnecessarily complex. Replicating Study 2, I again find no significant effects for the ideal subjective knowledge measure alone on either dependent measure (ts < 1, ps > .40). However, when comparing the explanatory power of the discrepancy model to its underlying components we see a significant improvement for only one of the two dependent measures. Superiority of the knowledge discrepancy model over the ideal or actual components alone is again supported for the number of people with whom the ratings were shared (r-squared for actual, ideal, and discrepancy models = .15 (p < .05), .13 (p < .10), and .18 (p < .05) respectively, with a significant increment in variance explained from the actual model to the discrepancy model

FIGURE 2.2
MODERATION BY SYMBOLIC PRODUCT INVOLVEMENT





(F(2, 112) = 3.95, p < .05). In contrast, for the number of ratings shared dependent measure the discrepancy model was not an improvement over the ideal self-concept model (r-squared for actual, ideal, and discrepancy models = .15, .18, and .19 respectively (all ps < .05); increment in r-squared from ideal to discrepancy (F < 1)).

Instead, increment in variance explained tests indicate both the ideal (F(2, 112) = 3.97, p < .05) and discrepancy models F(2, 112) = 5.69, p < .01) performed better than the actual self-concept model.

Moderated Mediation. I next subjected the manipulated knowledge discrepancy independent variable, the mean of the six dejection-based affect items, and each of the dependent variables to bootstrap tests of moderated mediation (MODMED; Preacher, Rucker & Hayes, 2007). Specifically, I assessed whether the effect of a knowledge discrepancy on the two dependent measures was mediated by dejection-based affect, and whether this indirect effect was moderated by product symbolism. Moderation was expected between the mediator and dependent measures (model 3; Preacher et al., 2007).

For the number of product reviews shared, analysis of the dependent variable model revealed an interaction of dejection-based affect and product symbolism ( $\beta = .60$ , t(115)= 2.65, p < .01), suggesting an indirect effect moderated by product symbolism. Based on effects coding (high product symbolism = 1, low product symbolism = -1), the coefficient indicates that the indirect path between the independent and dependent variables is larger given more symbolic products to review. Bootstrap results confirm a significant indirect effect via the dejection mediator for more symbolic products (95% CI: .08, 1.13 at 5,000 resamples), but not for less symbolic products (95% CI: -.27, .31). The analysis using the number of people with whom product reviews were to be shared as the dependent measure revealed the same pattern of results. We again observe an interaction of dejection-based affect and product symbolism ( $\beta = .82$ , t(115) = 3.04, p < .01) in the dependent variable model, suggesting an indirect effect moderated by product symbolism. Bootstrap results confirm mediation by dejection given more symbolic products (95% CI: .04, 1.08), but not less symbolic products (95% CI: -.66, .13). Path coefficients for simple bootstrap mediation models at each level of the symbolic products moderator and for each dependent measure are reported in Table 2.2.

TABLE 2.2
MODERATED MEDIATION SUMMARY

Product category (moderator)	Word-of-mouth intentions (DV)	95% CI	Path coefficients			
			a	b	c	c'
More symbolic	# of reviews	(.04, 1.39)	.47*	1.16**	1.45*	.91
Less symbolic	# of reviews	(16, .48)	.38+	.17	48	54
More symbolic	# of people	(.01, 1.24)	.47*	.93*	1.52*	1.08
Less symbolic	# of people	(70, .09)	.38+	39	-1.37*	-1.22 <sup>+</sup>

NB: Knowledge discrepancy condition is the IV for all rows

*Discussion*. Study 3 contributes additional evidence of the robustness of the compensatory word-of-mouth effect by replicating the basic effect using a global, rather than category-specific, manipulation of a consumer knowledge discrepancy. This study also provides initial evidence of the signaling nature of the behavior by showing that the effect occurs only in more symbolic product categories that provide opportunities for consumers to share self-relevant information (H3). Finally, as predicted, dejection-based affect mediated the relationship between a knowledge discrepancy and word-of-mouth intentions given a high (but not low) symbolic involvement category to review (H4).

### **STUDY 4**

If the greater motivation of knowledge-discrepant individuals to share word-of-mouth information is driven by compensatory self-enhancement, then we should find evidence of more self-presentational effort in the word-of-mouth content of individuals with a high (vs. low) knowledge discrepancy. In Study 4, I analyze the content of

<sup>\*\*</sup> p < .01, \* $\bar{p} < .05$ , \* $\bar{p} < .10$ 

participant-written reviews using measures that are consistent with self-enhancement or positive impression management. Specifically, I predict that the content of word-of-mouth information shared by participants with a high (vs. low) knowledge discrepancy will reflect greater effort to write the review, include more self-involved or self-centered content, utilize more complex language, and be more positive about the reviewed product.

As for review writing effort, the asynchronous nature of technology-mediated communication allows a person to increase the amount of time they spend constructing a self-presentational message with less social awkwardness than face-to-face interactions (Ellison, Heino, & Gibbs, 2006; Hesse, Werner, & Altman, 1988). Examinations of self-presentation in online contexts find that the number of words written and time spent writing on discussion boards increase when self-presentational motives are heightened (Walther, 2007). This leads to the following prediction-

**H5**<sub>a</sub>: There will be a positive relationship between knowledge discrepancy level and review-writing effort.

As to self-centered content, it is axiomatic that self-presentation requires highlighting aspects of the self. Talking about the self is a primary means of constructing favorable impressions (Schlenker, 1980). In the linguistic psychology paradigm, textual content indicative of self-presentation motives has been measured by the extent of first-person singular (I, me, my) and personal pronoun use (you, we, us), which have been linked to high self-involvement (Davis & Brock, 1975) and a desire to draw attention to the self (Rude, Gortner, & Pennebaker, 2004).

**H5**<sub>b</sub>: There will be a positive relationship between knowledge discrepancy level and self-involvement in review content.

Regarding language complexity, people who are motivated to convey elevated impressions of knowledge or competence are likely to do so by using more complex sentences (Walther, 2007), and there may be good reason for doing so – greater lexical complexity and diversity in speech coincide with more positive perceptions of the communication source (Bradac, Courtwright, & Bowers, 1980).

**H5**<sub>c</sub>: There will be a positive relationship between knowledge discrepancy level and the complexity of language in the review.

Regarding positivity, prior research reports that experts transmit more positive word-of-mouth as a means of signaling their expertise, thereby bolstering their identity as a knowledgeable consumer (Wojnicki and Godes, 2011). Similarly, Hennig-Thurau et al. (2004) report correlational evidence relating self-enhancement with word-of-mouth positivity. Positivity (as identified through positive emotion words in linguistic psychology research) was linked to self-enhancing impression management in a study on language use by anorexics in online homepages and message boards (Lyons, Mehl, & Pennebaker, 2006). My last prediction regarding the relationship between knowledge discrepancy and the content of the word-of-mouth transmissions is thus-

 $H5_d$ : There will be a positive relationship between knowledge discrepancy level and the positivity of language in the review.

#### Method

One hundred and ten undergraduate students (60 female) from a U.S. university completed the study for course credit and were randomly assigned to either high or low knowledge discrepancy conditions. The procedure was similar to Studies 1-3, but used movies as the focal product category. Participants were again told they would be testing a feature of a consumer products website. Under a cover story of collecting movie category usage and attitudes, a movie knowledge discrepancy was primed using the same procedure as in prior studies. Participants were asked to test the product reviews feature by sharing their opinion about the last movie they saw in theaters. They were told that other research participants would be asked to answer questions about their review, and that they could share their reviews with others via email (enabling a replication of the second dependent variable from Studies 2 and 3). Participants were asked to choose one title from a drop-down list of all movies released in North America over the prior three months (Nov. 2011 – Jan. 2012). If the last movie they saw did not appear on this list, participants entered the name of the movie in a text box. Participants provided a textual review and rating (1 to 5 stars) for this movie, and then listed the first names of people with whom they wanted to share this review by email. To test an alternative explanation of our findings – that compensatory communication is driven by a desire to increase one's own consumer knowledge via feedback from others – participants were asked to indicate the extent to which they wished to see the feedback that others will give regarding their review (1 = not at all interested in seeing feedback; 7 = very muchinterested in seeing feedback), and whether or not they wanted feedback from the people they selected to email their review (yes, no). Finally, Zaichowsky's (1994) 10-item

involvement scale was used to test for the possibility that the priming tasks manipulated category involvement.

Word-of-Mouth Content Measures. Measurement items for the content analysis testing Hypothesis 5<sub>a-d</sub> were obtained from four sources. Many of the items were generated using LIWC, an application used in linguistic psychology (Pennebaker, Booth, & Francis, 2007; www.liwc.net). The majority of LIWC items assess the prevalence of words that have been empirically validated in terms of their fit with specific psychological constructs. For example, the "positive emotion" item assesses the proportion of words that match a dictionary of 408 words such as "best," "good" and "love" (cf. Tausczik and Pennebaker (2010) for a review of the psychometric properties of LIWC items as revealed in their use in over 100 peer-reviewed publications).

Time spent writing (provided by the survey software) and the number of words written (LIWC) are used as two measures of the effort expended to generate the movie review. To capture self-involvement, I used LIWC's self-references (first-person singular pronouns; e.g., I, me, my) and personal pronoun (e.g., you, we, us) items. For a third self-involvement item, two independent judges were instructed to code whether or not the reviewers talked about themselves in addition to talking about the particular movie they reviewed (0 = no, 1 = yes). Initial coder agreement was 89%, with disagreements resolved by discussion.

For language complexity, I capture both the raw number of words per sentence statistic from LIWC and a statistic that combines the number of words per sentence and number of syllables per word as an indicator of sentence complexity, resulting in an estimated "grade level" readability for the text (Flesch-Kincaid readability test, 2012).

Finally, I report a set of three LIWC items recommended in Tausczik and Pennebaker (2010) as indicators of language complexity (prepositions, cognitive mechanisms, and words greater than six letters).

The first measure of review positivity leverages the positive emotion item in LIWC (Lyons et al., 2006). Two independent judges also coded thought valence following Brinol et al (2007). Under this procedure, judges are asked to count the positive, neutral and negative thoughts in each movie review. Subtracting the number of negative thoughts from positive thoughts and dividing this by total thoughts produces a positivity index ranging from zero to one. Initial agreement on thought valence was 72%, with a high inter-coder correlation for the positivity index (r = .86, p < .001). Disagreement was resolved by discussion. The third item capturing review positivity was the one to five star product rating provided directly by experimental participants.

#### Results and Discussion

Consumer Knowledge Self-Concepts. The manipulation check items for actual ( $\alpha$  = .89) and ideal ( $\alpha$  = .94) movie knowledge were averaged and differenced to produce the discrepancy score ( $r_D$  = .89). As in prior studies, the components underlying the discrepancy score were correlated (r = .26, p < .01). Measurement order (counterbalanced) did not affect the actual (F(1, 107) = 1.47, p = .23), ideal or discrepancy scores (Fs < 1). Participants in the high discrepancy condition had a higher movie knowledge discrepancy (M = .65) than those in the low discrepancy condition (M = -.44; F(1, 107) = 9.80, p < .01). Participants' ideal movie knowledge self-concepts were marginally higher for those in the high (M = 4.50) than in the low discrepancy condition (M = 3.94; F(1, 107) = 3.27, p < .10). There difference in actual movie

knowledge self-concept by condition was non-significant ( $M_{high \ discrepancy} = 3.91 \text{ vs. } M_{low}$  discrepancy = 4.23; F(1, 107) = 1.60, p = .21). The prime did not affect category involvement ( $\alpha = .90$ ; F(1, 108) = 1.94, p = .17).

Motivation to Share Word-of-Mouth. Consistent with prior studies, participants in the high discrepancy condition intended to share their product reviews with more people (M=5.58) than did their counterparts in the low discrepancy condition (M=4.87; F(1, 108) = 3.65, p = .06), although the effect was marginal. An analysis of the incremental explanatory power of the discrepancy model over the model that includes only aspiration levels reveals a significant improvement for the discrepancy model (r-squared = .33) over the ideal model (r-squared = .23; increment in r-squared F(1, 107) = 15.97, p < .001) and actual model (r-squared = .10, increment in r-squared F(1, 107) = 36.73, p < .001) again replicating support for the use of knowledge discrepancies as predictors and for the interpretation of the effect as compensatory rather than driven by aspiration level alone.

MANOVA was used to assess whether a movie knowledge discrepancy had a significant effect on each set of measures for the four dependent variables. I found a significant multivariate effect for review writing effort (Wilks'  $\lambda$  = .94, F(2, 109) = 3.21, p < .05), review positivity (Wilks'  $\lambda$  = .89, F(3, 108) = 4.38, p < .01), language complexity (Wilks'  $\lambda$  = .89, F(5, 106) = 2.62, p < .05) and self-involvement (Wilks'  $\lambda$  = .95, F(3, 108) = 2.73, p < .05). Results for each individual variable are presented in Table 2. The pattern of results is consistent with the knowledge signaling explanation for all four variables, and for 11 of the 13 individual measurement items underlying these variables (4 of 11 effects were marginal).

TABLE 2.3 WORD-OF-MOUTH CONTENT MEASURES

		l			
Dependent measure	Measure source	Low	cy Condition High	Test statistic <sup>1</sup>	
Effort					
Time writing (secs.)	Survey tool	155.23	207.74	2.54	*
Number of words	LIWC (wc)	60.51	79.78	2.06	*
Self-involvement					
Self-references	LIWC (i)	3.04	4.51	2.32	*
Personal pronouns	LIWC (ppron)	4.71	5.96	1.82	+
Talk about selves	Judges	27.3%	43.6%	3.22	+
Language complexity	C				
Grade level readability	Flesch-Kincaid	7.83	8.65	1.69	+
Words per sentence	LIWC (wps)	15.64	18.27	2.30	*
Prepositions	LIWC (prep)	9.91	12.24	2.78	**
Cognitive mechanisms	LIWC (cogmech)	14.59	16.59	1.70	+
Words > 6 letters	LIWC (sixltr)	19.84	18.42	-0.98	
Positivity	,				
Positive emotion	LIWC (posemo)	5.60	7.30	2.18	*
Thought valence	Judges	0.25	0.49	2.37	*
Product rating	Survey	3.45	3.78	1.56	
E	J				

<sup>&</sup>lt;sup>1</sup>All t-statistics except "Talk about selves", which is Chi-square. \*\* p < .01. \* p < .05, \* p < .10

Feedback Seeking. Participants' desire to obtain feedback from other research participants did not differ by discrepancy condition ( $M_{high discrepancy} = 2.87 \text{ vs. } M_{low discrepancy}$ = 3.38, (F(1, 108) = 1.83, p = .18), nor did their desire to obtain feedback from the friends with whom they intended to share their reviews (High discrepancy = 25.9%, Low discrepancy = 38.5%; ( $\chi^2(1) = 1.91, p = .17$ ). Thus, compensatory communication does not appear to be driven by consumers' efforts to gain knowledge by obtaining feedback about their opinions.

Discussion. Study 4 corroborates the compensatory word-of-mouth hypothesis with evidence from content-based dependent measures. Specifically, analysis of the content of actual movie reviews written by research participants reveals that those who perceived their knowledge to be less than ideal expended greater effort in writing movie reviews, exhibited higher levels of positivity, focused more on themselves, and wrote using more complex language than participants who did not perceive a knowledge discrepancy.

These variables have previously been associated with self-presentation in general or displays of knowledge in particular. Finally, findings from Study 4 do not support the argument that the heightened communication intentions of knowledge discrepant consumers reflect their desires to reap the educational benefits of sharing their opinions with others. Despite wanting more people to read their reviews, knowledge discrepant consumers were not more interested in receiving feedback about their reviews.

#### **GENERAL DISCUSSION**

Nearly half a century ago, consumers reported that over 80% of their decisions were influenced by word-of-mouth (Dichter, 1966). Today, the importance of word-of-mouth to consumers appears to be expanding in technology-mediated contexts such as email, text messaging, discussion boards, retail website product reviews, and online social networks. These technology-mediated consumer interactions also matter greatly to firms—there is strong support for the effect of word-of-mouth on purchase behavior at websites for which consumer social influence is enabled (Chen & Xie, 2008; Godes & Mayzlin, 2004).

This research sheds new light on the relationship between the motivation to transmit word-of-mouth and consumer knowledge beliefs. By treating consumer knowledge as a

self-concept domain subject to the dynamics of possible selves, I demonstrate that individuals who perceive gaps in their own knowledge relative to their ideals intend to seek more opportunities to demonstrate their knowledge, intend to share evidence of their knowledge with more people, and try harder to use the contents of their word-of-mouth information to display their knowledge. Compensatory word-of-mouth was a response to deficiencies in both category-specific (Studies 1, 2, and 4) and consumer-level (Study 3) knowledge discrepancies, and affected both word-of-mouth intentions (Studies 1-4) and behaviors (Study 4).

This extension of the self-discrepancy paradigm to consumer knowledge further enables refinement of the predictions of SSC theory. While SSC demands low objective levels of ability in the salient domain, I found that compensatory word-of-mouth occurs at both high and low levels of objective consumer knowledge (Study 2). Process findings confirm that compensatory word-of-mouth occurs because doing so helps people enhance their self-concepts (Study 2), and is a response to negative affect that arises from a perceived shortcoming in consumer knowledge (Study 3). Finally, content analysis of participant reviews produced results consistent with the drive to self-enhance (Study 4).

A primary alternative explanation for these results is that a person's ideal self-concept in the consumer knowledge domain is solely responsible for the increased motivation to transmit word-of-mouth. First, this alternative is not necessarily inconsistent with the central proposition of this paper. That is, when it comes to the motivation to transmit word-of-mouth, I argue that what a person *wishes they knew* can be at least as important as what they believe they *actually know*. A simple goal aspiration account is wholly consistent with this proposition, and contributes to the word-of-mouth motivation and consumer knowledge literatures by demonstrating the importance of the ideal self in these domains. First, the goal aspiration literature is heavily grounded in self-regulatory theories of motivation (Austin & Vancouver, 1996). While some research

manipulates compensatory behavior by reducing actual self-concepts (e.g., low power; Rucker & Galinsky cite) and other research elevates the ideal self (e.g., Pham & Avnet, 2004), the present research finds that is the cognitive contrast (discrepancy) between these two selves that is most strongly linked to motivation of the behavior we observe. First, the ideal self-concept alone failed to be a significant predictor of the motivation to transmit word-of-mouth in two of three studies (Studies 2 and 3). Second, the knowledge discrepancy variable offered more explanatory power than either the ideal or actual knowledge self-concepts alone in all four studies (although for only one of two dependent measures in Study 3). Third, goal aspiration accounts would not predict negative emotional consequences for the mere presence of a goal. In contrast, self-regulatory research has demonstrated it is the contrasting between a present state (e.g. actual self) and goal (e.g. ideal self) that produces negative emotion, with one of the most dominant theoretical frameworks in this literature demonstrating a specific negative emotion (dejection) for the particular self-discrepancy I examine (Higgins, 1987). We observed mediation of the effect by this specific negative affect in Study 3. In sum, the results obtained in the present research favor a self-discrepancy over an aspiration level account of word-of-mouth motivation.

This investigation, by design, was set in a technology-mediated context. Word-of-mouth modality may moderate the behavior such that the ability to carefully craft an online product review may facilitate compensatory communication, while the in-the-moment pressure of a live, oral WOM interaction may attenuate it. The online setting also differs from face-to-face interactions in that it offers a vast range of psychological distances between the source and recipient dyad involved in the exchange of WOM information. In online contexts, the WOM source and recipient can be known to each other to varying degrees through their existing "offline" relationships or online profile

information (e.g., email, the share button, social networks, twitter, forums, discussion boards, reviews that include a user profile of the source) or completely unknown to each other (e.g., anonymous reviews). Future research is needed to examine whether the greater self-concept relevance of a psychologically close WOM target moderates compensatory communication. Existing research provides mixed predictions as to whether the known (e.g., a friend) or unknown (a stranger) WOM target will be the recipient of more source self-enhancement (Argo, White, & Dahl, 2006; Tice et al., 1995). Other aspects of the WOM target such as their product expertise may also be moderators of compensatory communication. For example, people may be more concerned about being "caught in the act" of sharing WOM for more self-centered rather than altruistic motives when WOM targets are expert consumers themselves. This may lead them to withhold their product opinions for fear of presenting themselves unfavorably (Schlenker, 1975).

The applicability of our findings across product categories is constrained given that this investigation focused primarily on products falling into the categories of entertainment and information goods. I speculate that other top "rated and reviewed" categories such as electronics and travel would fit a similar pattern such that public usage goods (e.g., smart phone, package vacation) are particularly subject to the effect relative to more private goods in the same categories (e.g., DVD player, commuter flight).

I believe that the analysis of consumer knowledge as a dynamic self-concept domain-- as opposed to a static "present state" trait-- represents a promising venue for research regarding not only word-of-mouth communication, but other consumer knowledge consequences such as search, preference, and choice. For example, while prior research indicates that people search for products at a level consistent with their subjective consumer knowledge (Moorman et al., 2004), the present findings suggest that

this relationship may not always be sustained. In the choice context, consideration of discrepant knowledge self-concepts might enrich prior findings regarding consumer "matching" of their actual or self-perceived skill with the products they choose (Burson, 2007). For example, it seems that consumers who are self-discrepant in a given category (e.g., photography) may seek out products that are "mismatched" with their subjective knowledge self-concept (e.g., digital SLRs) to compensate for perceived shortcomings in that domain.

The findings also hold some implications for consumers and firms. Consumers are motivated to seek word-of-mouth information from others in part because they believe it will improve their own category knowledge and/or purchase decisions (Burton & Khammash, 2010; Hennig-Thurau & Walsh, 2003). A brief pilot survey conducted for this research (n = 109) found that people listed a high level of product knowledge second only to product dissatisfaction among the 12 most commonly cited motivations for sharing WOM information. This finding suggests that the Gricean expectation of a "conversational contribution" consistent with one's consumer knowledge in WOM transmission is prevalent among lay people. Trust in WOM sources of product information is also particularly high due to the perception that these sources are less motivated by self-interest (i.e., are more altruistic) than firm agents (Bickart & Schindler, 2001; Friestad & Wright, 1994; Katz & Lazarsfeld, 1955). Indeed, Americans who use the Internet state that they trust the product opinions shared by other consumers online second only to those of immediate friends and family (Nielsen, 2009). Our research suggests that consumer trust in technology-mediated WOM should be tempered by the possibility that self-interested motives—instead of a more altruistic desire to share knowledge to an extent consistent with one's knowledge—may be driving WOM behavior.

From a managerial perspective, the results suggest that priming consumer

knowledge ideals may motivate individuals to share more word-of-mouth online—a behavior shown to have positive affects on purchase behavior (Chen & Xie, 2008; Godes & Mayzlin, 2004). This insight is of particular relevance to online retailers and consumer opinion portals, which could potentially use banner advertising or email marketing that speaks to consumer knowledge goals to motivate increased word-of-mouth transmission at their websites. The findings may also help firms identify high potential influencers in their marketing database. While the market maven scale (Feick & Price, 1987) or other measures of consumer knowledge and the motivation to share it might presently be used by managers to identify customers most likely "spread the word" about their products, incorporating measures that also capture the ideal consumer knowledge self-concept should help improve the firm's ability to identify those individuals who are most highly motivated to transmit word-of-mouth information.

Of potential interest to both consumers and managers is whether the heightened volume of word-of-mouth information generated by those who believe they are deficient in consumer knowledge (relative to their ideals) is offset by a decline in the quality of product information transmitted. While we observed no impact of the participant's store of objective knowledge on compensatory word-of-mouth (Study 2), the content of the actual WOM generated by knowledge-discrepant participants in Study 4 clearly found a bias towards providing more self-centered information. For example, people who perceive gaps in their consumer knowledge are likely to be overtly positive about themselves and/or the product in their reviews, and spend a disproportionate amount of time and effort talking about the self instead of the product. Future research might examine whether the greater volume of information shared by the knowledge discrepant consumer is offset by a perceived decline in the quality of that information or recipient perceptions of "self-centeredness" by the source.

In conclusion, conventional wisdom regarding the relationship between word-of-mouth and product knowledge is that the people who talk more about products do so because they believe they know more about them. Results of the present research suggest we may also wish to consider whether a perceived discrepancy in consumer knowledge relative is motivating the word-of-mouth source. By identifying the motivational power of discrepant consumer knowledge self-concepts, this research contributes a more nuanced understanding of how knowledge beliefs motivate the transmission of word-of-mouth information. It is my hope that this research might stimulate further inquiries leveraging a more dynamic conception of consumer knowledge, shedding new light on the impact of consumer knowledge beliefs on its other important behavioral consequences.

# Chapter 3

# Consumer Responses to Self-Enhancing Sources of Word-of-Mouth Information

Interpersonal exchanges of product information, commonly referred to as "word-of-mouth", are of central importance to marketers and consumers. Marketers are keen to understand and manage word-of-mouth given its significant impact on attitudes and purchase behavior (Chen & Xie, 2008; Godes & Mayzlin, 2004) and the dramatic growth in access to and usage of word-of-mouth in technology-mediated settings (Jupiter Research, 2006). For consumers, the perceived absence of 'ulterior motives' in information shared by interpersonal sources of product information makes it more trustworthy, even when it is shared anonymously (Brown, Broderick & Lee, 2007; Dellarocas, 2003; Hennig-Thurau et al, 2003).

While trust in technology-mediated word-of-mouth continues to grow relative to other sources of product information (Nielsen, 2012), consumers remain faced with the need to evaluate the credibility of this source of product information. People often have little to go on to help them decide whether an opinion shared through textual information in a product review, online forum post, or message board is worth heeding. Marketers are well aware of this problem, leading many to introduce reputation systems intended to help consumers assess the credibility of online sources of product information (Dellarocas, 2003; Ma & Agarwal, 2007; Resnick et al., 2000). Although the source

information provided by these systems enhances the recipient's ability to diagnose source credibility to some extent, largely outside of the marketer's control is the specific content of the word-of-mouth transmission itself.

For example, in the course of sharing their personal product opinions and experiences, people are also likely to talk about themselves.<sup>3</sup> An individual might explain where they bought a product, how it worked for them, and whether they enjoyed it. They might indicate how long they've been using it or similar products, and whether they are a novice or expert user. A source that speaks or writes positively about her own experience or competence may help bolster her credibility, strengthening her ability to persuade the recipient. Alternatively, boastful or overtly positive claims about the self may also be perceived as self-enhancing (Schlenker, 1980; Schlenker & Leary, 1982; Sedikides et al., 2008), leading the recipient to wonder, "Is she sharing this information to help me or to try to impress me?"

In addition to the general belief that people share their product opinions for altruistic reasons (Hennig-Thurau et al, 2004), more self-centered goals also drive the information source. Recent research has demonstrated that the self-enhancement motive, a desire to bolster or improve one's own self-concept and social identity (Baumeister, 1998), is a central driver of word-of-mouth transmission. Self-enhancing individuals are motivated to share information about their own consumer experiences and expertise to support a positive self-image (De Angelis et al., 2012; Hennig-Thurau & Walsh, 2003; Packard & Wooten, 2012; Wojnicki & Godes, 2012).

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<sup>&</sup>lt;sup>3</sup> People talk about personal experience (rather than the product experience(s) of others) in the majority of word-of-mouth conversations (De Angelis et al. 2012; Keller Fay Group LLC 2006).

How might this behavior be interpreted by the word-of-mouth recipient? Generally speaking, self-enhancing statements regarding one's own abilities or attributes are perceived negatively as immodest or boastful (Godfrey, Lord, & Jones, 1986; Robinson, Johnson, & Shields, 1995; Sedikides, Gregg, & Hart, 2008). But are positive statements about the self necessarily a bad thing when it comes to interpersonal exchanges of product information? The recipient might appreciate positive descriptions of the source's own expertise or experience about products as these could provide useful information about the source's competence. This kind of information might be particularly valued in technology-mediated contexts, where information about the source's credibility is often scarce (Dellarocas, 2003). What's more, regardless of the source's possibly self-centered boastfulness, the fact that the source exerted some effort to share their opinion may suggest some base level of altruism. As a result, it seems plausible that consumers might accept the information provided by self-enhancing sources of product information as useful. However, this trust likely has its limits. Factors pertaining to the source, message, or channel context (McGuire, 1978) may highlight uncertainty about the motives of immodest sources of word-of-mouth information, weakening their credibility, and therefore, their persuasiveness.

This chapter contributes an examination of when and how source self-enhancement affects interpersonal persuasion. This subject is of importance to managers given the influence of conversations about products on a majority of purchase decisions (Balter, 2008; Dye, 2000) and the prevalence of the self-enhancement motive among sources of word-of-mouth information (Hennig-Thurau & Walsh, 2003). While historically these conversations were invisible to marketers, internet-related technologies make many of these conversations accessible to the firm and its agents as either observers or participants, providing a means to directly measure and/or manage this persuasion setting (e.g., Mayzlin, 2006; Smith, Menion, & Sivakumar, 2005). For consumers, an

understanding of the consequences of source self-enhancement in word-of-mouth may help improve decision-making for both the transmitters and recipients of this product information. This research further seeks to extend research on modesty in self-presentation by looking beyond actor (source) perceptions to downstream consequences on audience (recipient) attitudes and behavioral intentions elicited by this behavior (product attitudes and choice). Finally, this research offers a contribution to the source credibility literature by evaluating the impact of a single antecedent on multiple dimensions of source credibility, a real-world dynamic that is not commonly reported in experimental research on this subject (Perloff, 2010; Pornpitakpan, 2004).

#### CONCEPTUAL DEVELOPMENT

### Source Credibility

Consumers use a variety of information sources to reduce search or decision costs, improve decision quality, or manage dissonant cognitions (Kirmani & Campbell, 2004; Schiffman & Kanuk, 2000). These sources have traditionally included marketers, paid or unpaid experts, and friends and family (Solomon, 1986). In recent years, the availability of product-related information has exploded through the massive network of individuals connected by the Internet and related technologies (Godes et al., 2005). Although this proliferation of sources online may be an informational boon to consumers, the greater anonymity or psychological distance often present in technology-mediated contexts brings with it a heightened need to assess which source(s) are most credible, useful or "diagnostic" for the information-seeking consumer (Dellarocas, 2003; Gershoff et al., 2001; McGuire, 1978).

What makes for a credible, and therefore persuasive, information source? Credibility is most commonly described as having two key dimensions: expertise and trustworthiness

(Perloff, 2010; Pornpitakpan, 2004; Tormala, Brinol & Petty, 2006; Wilson & Sherrell, 1993). Simply defined, expertise describes the source's *ability* to make accurate assertions, while trustworthiness describes the source's perceived honesty, integrity, or *motivation* to provide accurate information. The most highly cited meta-analysis (Wilson & Sherrell, 1993) and review (Pornpitakpan, 2004) of the source credibility literature concur that source expertise has a stronger impact on persuasion, with a significant gap between it and trustworthiness.

Arguments supporting the greater persuasive power of source expertise than trustworthiness may be due in part to the literature's greater emphasis on examining the former. Researchers commonly manipulate expertise by providing objective facts about the source's experience or qualifications, and measure source trustworthiness as a consequence of or confound with expertise (Pornpitakpan, 2004; Wilson & Sherrell, 1993). McGinnies and Ward's (1980) investigation provides one of a handful of exceptions in its independent manipulation of both the expertise and trustworthiness of a source of political information. Trustworthiness was manipulated by modifying the extent to which the source (a journalist) was known among his professional peers as trustworthy, honest and sincere. This investigation found stronger effects on attitude change for trustworthiness than expertise. Wiener and Mowen (1986) also attempted to tease apart the effects of trust and expertise by independently manipulating the intrinsic self-interest (trust) and experience, training and certification (expertise) of a car mechanic providing auto repair advice. They found that a source that possessed an economic selfinterest in the potential repair (low trust) was less persuasive than one without this motive (high trust), with no interaction of trustworthiness with expertise. Other research examining persuasion and communicator bias revealed that target attributions of biases moderating a source's willingness, rather than ability, to provide accurate information lead to sincerity and motive (i.e., trust) concerns (Eagly, Wood, & Chaiken, 1978).

Research specific to the word-of-mouth context has followed the broader source credibility literature in appearing to prioritize an understanding of source expertise over trustworthiness. These studies present objective source cues such as credentials, past achievements, experience and role to examine the effect of perceived expertise on word-of-mouth persuasion. Karmaker and Tormala (2009) manipulated source expertise through job title (e.g., food critic vs. IT administrator) of a person sharing a consumer review of a restaurant, and found that experts (novices) with low (high) certainty were most persuasive. The authors' examination of trustworthiness was limited to a manipulation check. Feick and Higie's (1992) examination of source credibility in word-of-mouth manipulated expertise through a scenario describing the source's prior experience (number of visits) with service providers (e.g., accountant, hair salon), and found support for a positive effect of perceived source expertise on persuasion.

I am unaware of research concerned with perceptions of source trustworthiness in word-of-mouth persuasion. The lack of research concerned with this topic may be driven by a perception among both academics and the market that word-of-mouth sources are inherently more trustworthy (Hennig-Thurau et al., 2003; Nielsen, 2012) due perhaps to their apparently altruistic motives in sharing product information (Beldad, de Jong, & Steehouder, 2010; Rotter, 1971). While such 'other-centered' motives may be seen as the normative or default driver of word-of-mouth transmission, more self-centered motives may also be operative in this exchange.

Social Perception of Self-Enhancing Individuals

Talking positively about the self is pervasive in everyday life (Sedikides & Strube, 1997). Research on everything from the self-serving bias (Mezulis et al., 2004), the Lake Wobegon effect (Kruger, 1999), to overoptimism (Van den Steen, 2004) indicates that people almost universally describe their own abilities and outcomes as better than others. Social psychologists have also examined how self-enhancing beliefs and behaviors

impact the impressions people make on others (Schlenker & Leary, 1982; Swann, 1983; Tice et al., 1995). Behavior that supports self-enhancement goals is described as boasting, bragging, exhibiting false modesty or otherwise making claims to superior abilities or past performances (Cialdini, 1989; De Angelis et al., 2012; Schlenker, 1980; Schlenker & Leary, 1982; Sedikides et al., 2008; Tedeschi & Norman, 1985; Wayne & Linden, 1995). The behavior is theoretically and empirically contrasted with modesty, a self-presentational strategy in which a person is relatively non-boastful, but also not self-derogating in their interactions with others (Hui, Tan & Goh, 2006; Sedikides et al., 2008; Tice et al.,1995).

Self-enhancers face an impression management dilemma. When trying to present themselves positively, the actor runs the risk of appearing boorish or self-centered, causing their attempted gain in status to backfire (Carlston & Shovar, 1983; Forsyth, Berger & Mitchell, 1981; Godfrey et al., 1986; Wosinska et al., 1996). The challenge of presenting the self as both able and likeable has been described as the 'self-promoter's paradox' (Jones & Pittman, 1982) or the 'competency/likeability trade-off' (Godfrey et al., 1986). Godfrey and her colleagues (1986) asked participants to attempt to appear either more likeable or more competent to another experimental participant. While those asked to enhance their likeability successfully ingratiated themselves with the interaction partner, participants instructed to self-promote failed to bolster social perceptions of competence, and sacrificed some likeability in the process. The authors suggest that an indirect strategy of trying to be liked may be better than self-promoting when it comes to convincing others of your own competence. Related research by Forsyth et al. (1981) asked teams of participants to complete a challenging task. After completing the task, participants were given the chance to observe one another's ratings of personal responsibility for group success. The authors found that those who made highly selfenhancing attributions of the group's success were judged as more of a leader, but also less fair, likeable, and collegial.

While immodesty in self-presentation appears to be a risky endeavor, there may be circumstances where immodesty may be beneficial. A set of experiments set in the context of evaluating another individual's estimates of their own academic and athletic ability found that when people had no evidence of the individual's abilities, the individual's immodest estimates of their own future performance created a heightened perception of their competence with the participant, with little to no cost in perception of the individual's perceived sincerity or truthfulness (Schlenker & Leary, 1982). I speculate that a factor relating to the study's design might have produced this result. First, in contrast with the research of Godfrey et al. (1986) and others cited above, Schlenker and Leary's (1982) experiments presented participants with scenarios to which they were third-party observers. Thus, the participant had no actual or imagined self-interest in their evaluation of the actor. As a result, when asked to estimate the self-enhancer's future performance, they focused on the competence claim as objective information, with relatively less concern for the more interpersonally relevant traits of likeability or trustworthiness. Applying this thinking to the online word-of-mouth setting examined in the present research, a recipient of product information may similarly have little concern for the interpersonal traits of the source given they expect no future relationship with this person. However, consumer recipients of word-of-mouth should have greater personal interest in making accurate inferences about the source's trustworthiness given they must decide whether to allow the source's product information to update their own decisionmaking.

There is increasing evidence supporting the presence of the self-enhancement motive in word-of-mouth transmission. A large (n = 2,000) survey conducted by Hennig-Thurau et al (2004) revealed self-enhancement as the third strongest self-reported reason

consumers shared word-of-mouth information online after altruism and financial compensation. Recent experimental work also supports the presence of the self-enhancement motive in word-of-mouth transmission. For example, a compensatory self-enhancement framework was used to explain why people with consumer knowledge discrepancy write more reviews, talk more about themselves more within review content, and share their review(s) with more people (Packard & Wooten, 2012). Participants that proclaim themselves to be restaurant experts intended to share more, and more positively valenced, restaurant reviews in order to bolster their own self-image (Wojnicki & Godes, 2011). Related research using both lab and quasi-field data revealed that people tend to brag about their own positive consumption experiences and gossip about the negative consumer experiences of others to make themselves feel better or look better to others (De Angelis et al., 2012). An investigation regarding the potential self-concept 'costs' of word-of-mouth found that people avoid sharing product information when it might make them look worse relative to others by lessening their uniqueness (Cheema & Kaikati, 2010).

When and How Source Self-Enhancement Affects Word-of-Mouth Persuasion

Is modesty a virtue (or immodesty a vice) when consumers share product advice? Under what conditions are self-enhancing interpersonal sources of product information more or less persuasive? While there is limited evidence from the self-enhancement literature that a positive outcome will accrue to a self-enhancing actor, I expect that factors pertaining to the source, recipient, message, and environment considered central to successful self-presentations (Schlenker, 1980) and credibility inferences (McGuire, 1978) will moderate whether self-enhancement impedes or enhances the credibility and persuasiveness of interpersonal sources of product information. This thinking is supported by Kirmani and Zhu (2004), who demonstrated the importance of secondary cues in moderating the persuasiveness of salespeople. Specifically, they found that

inherent source biases, the salesperson's use of negative brand comparisons, or attention-getting sales tactics make manipulative intent particularly salient, hurting the salesperson's persuasiveness. In the next section, I describe and make predictions for four factors expected to moderate whether source immodesty helps, hurts or has no effect on the persuasion of consumer recipients of the source's product opinions. I first leverage the findings of Kirmani and Zhu (2004) and the persuasion knowledge literature by testing whether the default motives perceived for consumer (more altrustic) versus firm agent (self-interested) sources of product information produce different responses to source immodesty. I then turn to other moderator variables that are theoretically or substantively relevant to the word-of-mouth setting to demonstrate robustness and the mechanism by which self-enhancement impacts word-of-mouth persuasion.

Source Factor: Salience of an Ulterior Motive

While the assumed absence of self-interest in consumer sources of product information has kept the spotlight off trust concerns in word-of-mouth, this spotlight has shone brightly on another source of product information: the firm agent. The persuasion knowledge model (Friestad & Wright, 1994) posits that people develop a "schemer schema" (Wright, 1985) about the motives and behaviors of firm agents to manage their own persuasion. Central to this schema is the perception that the product information shared by firm agents may be motivated by self-interest (the selling motive). Campbell and Kirmani (2000) provided the first empirical examination of this framework, finding that when a salesperson attempted to ingratiate his or herself with the participant before (vs. after) the purchase decision, the participant perceived the source as having an ulterior motive, impeding persuasion. I expect that the high salience of the self-interested selling motive for firm agents will lead to a decrease in persuasion for a self-enhancing (immodest) firm source of product information. In contrast, when faced with a consumer source of the same product information, default perceptions of altruism as the dominant

source motivation (Grewal, Cline, & Davies, 2003; Hennig-Thurau et al, 2003) will increase the likelihood that consumers accept (or do not reject) the immodest source's product recommendation.

**H1:** Source immodesty will have a more positive (negative) effect on persuasion when the source is perceived to have altruistic (selfish) motives for sharing product information.

Source/Recipient Factor: Similarity. Prior research has found that source-target (i.e., source-recipient) attribute similarity leads to greater attitude and behavior change in a number of domains. The common explanation for the effect of source-target similarity on persuasion is a perception that a similar source is likely to share the consumer's own attitudes, opinions, and preferences, increasing the perceived diagnosticity of the source's information (Brock, 1965; Eagly, Wood, & Chaiken, 1978; Feick & Higie, 1992; Gershoff, Broniarczyzk, & West, 2001).

Simons, Berkowitz, and Moyer's (1970) review of the relationship between source-target similarity, credibility and persuasion finds that perceived similarity leads to trust, respect and/or in-group feelings, stressing the importance of membership-group similarities as antecedent to beliefs about attitudinal similarity. For example, the positive effect of demographic similarity in person-to-person persuasion was shown when an information source of the same (different) visible minority and who attended the same (different) university as a target was perceived as more (less) credible, leading to greater target attitude change on socio-political topics (Clark & Maass, 1988). In the consumer setting, an examination of the effect of identity disclosure in consumer reviews on product sales at Amazon found that the provision of a reviewer's geographic location (hometown) positively impacted the purchases of consumers ordering from the reviewer's geographic area, which the authors attributed to the consumer's concern with reviewer similarity (Forman et al., 2008). Naylor et al (2011) contributed some additional

support to the importance of demographic similarity on persuasion in the online word-of-mouth setting, replicating prior findings that word-of-mouth recipients make inferences about the source's attitudes through demographic attributes.

The relationship between similarity and persuasion occurs not only through attitude perceptions, but through perceived trust of the source. Social ties that are demographically similar are perceived as more trustworthy (Brown & Reingen, 1987; Coleman, 1990; Rogers, 1995), altruistic (Wuyts et al., 2004) and likely to share information of economic value (Frenzen & Nakamoto, 1993). Further, people tend to interact more often and communicate more easily with similar others, leading to trust and comfort with the flow of information from people who appear to be similar to the self (McPherson, Smith-Lovin, & Cook, 2001).

Building on these findings, I predict that low similarity between a word-of-mouth source and recipient will make trust concerns more salient for the word-of-mouth recipient, with predictable (negative) consequences for persuasion. In contrast, higher similarity will lead to a greater degree of trust in the source's information, resulting in a relatively more positive persuasion outcome.

**H2:** Source immodesty will have a more positive (negative) effect on persuasion when the source is perceived to be similar (dissimilar) to the recipient of the source's product information.

External Factor: Generalized Suspicion. Consumers are said to have a heightened sense of suspicion or distrust of information presented in the online (vs. offline) marketplace, which might make trustworthy sources of product information particularly valued in this context (Benedicktus et al., 2010; Reichheld & Schefter, 2000). Generalized suspicion, which can be defined as a lack of trust in others, is automatically generated by a variety of cues accessible in the online space (Pavlou & Gefen, 2005), and represents a significant impediment to consumer purchase intentions at e-tailers

(Schlosser, White, & Lloyd, 2006). Generalized suspicion has also been applied as an important moderator of interpersonal persuasion. Campbell and Kirmani (2000) found that externally primed suspicion activated persuasion knowledge, leading to negative evaluations of salespeople. Following these findings, I expect that an external suspicion cue will heighten salience of the self-enhancement motive in word-of-mouth sources of product information, negatively impacting their ability to persuade the recipient.

**H3:** Source immodesty will have a negative effect on persuasion in the presence (vs. absence) of externally primed suspicion.

Message Factor: Relevance. As famously articulated by Grice (1975), verbal interactions are expected to follow a certain conversational logic. When applied to the context of the social exchange of product information, Gricean maxims suggest the word-of-mouth recipient expects the source's contribution to be reasonably informative (maxim of quantity), truthful (quality), and sufficiently brief and unambiguous to get their point across (manner). Grice's last and most terse maxim was simply-- 'be relevant' (maxim of relation; Grice 1975, p. 46). Leech (1983) defined conversational relevance as verbal information that "can be interpreted as contributing to the conversational goal(s) of the speaker or hearer" (p. 94).

Irrelevant self-enhancing information shared by the word-of-mouth source may be interpreted by the recipient as inconsistent with their goal of obtaining useful product information, violating the recipient's expectancies. This cue that the source's motives are not following the "cooperative principle" expected by the recipient may lead to inferences that the source is attempting to mislead the recipient in some way (Grice, 1975, pp. 49-50) or is explicitly pursuing an alternative conservational motive (p. 54.

Prior empirical research regarding irrelevant message content examines it as an aspect of argument strength about a focal object (i.e., a product). Individuals reject

(choose) products endorsed (rejected) by consumers that use irrelevant product arguments (Simonson, Nowlis, & Simonson, 1993). Irrelevant self-enhancing claims made by a word-of-mouth source (about themselves) will be perceived as weak or flawed arguments regarding the source's own credibility. This will produce uncertainty in recipient beliefs about the source's motive, raising trustworthiness concerns and impeding persuasion.

Some support for the prediction that irrelevant arguments apply to a person (vs. a product) comes from research that found employment agents who presented job applicant information including irrelevant attributes of the job-seeker negatively impacted their (the agent's) perceived credibility as well as the perceived likelihood of success for the applicant (Beach et al., 1976).

**H4:** Source immodesty will have a more negative effect on persuasion when self-enhancing information is irrelevant (vs. relevant) to the information exchange.

Having discussed how factors pertaining to the source, message, and environment will moderate the impact of source immodesty on word-of-mouth persuasion, I next turn to the mechanism by which this occurs: credibility inferences the word-of-mouth recipient makes about the self-enhancing source.

*Mediation by Source Credibility* 

As suggested earlier in the conceptual discussion, examinations of source credibility in the word-of-mouth context have prioritized understanding the expertise dimension over trustworthiness. I speculated that this is driven to a large extent by normative beliefs that altruism is the primary driver of word-of-mouth transmission (e.g., Hennig-Thurau et al., 2004; Nielsen, 2012). While one of these surveys (Hennig-Thurau et al., 2004) also indicates that consumers are aware of self-interested motives as a secondary driver of this behavior, credibility factors pertaining to source motives (trustworthiness) in word-of-mouth remain poorly understood. Given high levels of trust in word-of-mouth, yet

distrust in the online marketplace, and previously cited findings that target perceptions of the source's motivation lead primarily to trust rather than expertise inferences (Eagly, Wood, & Chaiken, 1978), I expect that trustworthiness will be the most important credibility dimension underlying the relationship between source self-enhancement and persuasion in word-of-mouth.

**H5:** Perceived source trustworthiness will mediate the relationship between source self-enhancement and persuasion in word-of-mouth transmission.

If one follows the balance of evidence regarding perceptions of immodest actors, there is more in favor of predicting a failure to bolster perceived expertise or competence (Carlston & Shovar, 1983; Forsyth, Berger & Mitchell, 1981; Godfrey et al., 1986; Wosinska et al., 1996) than there is success in doing so (Schlenker & Leary, 1982). A number of cues seem likely to impact the extent to which individuals perceive immodest or boastful people as more competent than their more modest counterparts. For example, the blatancy (vs. subtlety) with which an actor claims their own expertise seems likely to moderate the extent to which the claim is accepted, as should any independent evidence or prior knowledge the target has in support of the immodest source's boastful claims (Schlenker & Leary, 1982). While studies examining additional moderating factors such as these would provide the most appropriate test of these predictions, for brevity I limit moderators examined in the present research to those linked with the trustworthiness dimension of credibility. That said, it seems plausible that some of these moderators may indeed lead to heightened perceptions of expertise. For example, high demographic similarity (H2) is expected to lead to recipient inferences that the source is trustworthy. Source-target similarity could also lead word-of-mouth recipients to project beliefs about their own characteristics onto the source (Ames, 2004). If the source is not a comparison threat, this may result in recipients projecting their own self-serving biases (e.g., of

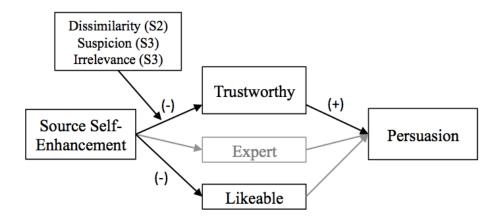
possessing above average expertise) onto the similar source. While I make no formal predictions regarding expertise as a mediator of self-enhancement and persuasion, I include it as both a control for the trustworthiness variable, and to enable the observation of potential positive effects of source immodesty on perceived expertise (Schlenker and Leary, 1982).

In addition to the two main dimensions of expertise and trustworthiness, many source credibility scholars argue for the inclusion of a weaker third dimension of credibility to account for the source's likeability (also known as or related to attractiveness or "dynamism"; Berlo, Lemert, & Mertz, 1969; Pornpitakpan, 2004; Wilson & Sherrell, 1993). Likeability can be described as the ideological and/or physical appeal of the source. As immodest self-presentations have been shown to affect perceived competence (expertise) and likeability (Godfrey et al., 1986; Robinson et al., 1995; Schlenker & Leary, 1982), likeability is also a potentially important mediator of the relationship between source self-enhancement and persuasion. A meta-analysis of source credibility research reported that while likeability is easily inferred, it generally has little to no impact on persuasion (Wilson & Sherrell, 1993). I expect to replicate the results of prior research on this credibility dimension.

**H6:** Source immodesty will have a negative effect on perceived source likeability, but likeability will not impact persuasiveness of the word-of-mouth transmission.

Figure 3.1 summarizes the mediation pattern predicted for the three dimensions of source credibility that will be captured in the present research.

FIGURE 3.1
PROCESS MODEL



[Predicted relationships in black. Measured relationships in grey.]

# Overview of Empirical Studies

Three studies are presented to test the hypotheses. Study 1 provides initial evidence that the recipient's salience of a self-interested source motive negatively impacts persuasion for an immodest source of product information (H1). Subsequent studies examine additional factors pertaining to the source (H2), channel (H3), or message (H4) that may help or hurt the persuasiveness of an immodest source of word-of-mouth information, and reveal trustworthiness as a mediator of the effect of source self-enhancement on persuasion. More specifically, Study 2 examines one way that firms have attempted to manage perceived trust in consumer sources of product information online-- the reviewer profile. This study reveals that the provision of similar (dissimilar) demographic information can enhance (attenuate) the persuasiveness of a self-enhancing source of word-of-mouth information (H2). A third study demonstrates that other subtle cues of distrust may make modesty a virtue in word-of-mouth transmission. Generalized suspicion, a state often attributed to the online consumer (Benedicktus et al., 2010; Pavlou & Gefen, 2005), causes participants to reject immodest sources of word-of-mouth

information (H3). This study also demonstrates that word-of-mouth sources that violate the Gricean (1975) maxim of relation by sharing irrelevant (vs. relevant) self-enhancing information weaken their persuasiveness (H4). Studies 2 and 3 confirm distrust as a mediator of the effects (H5), while controlling for two other credibility dimensions (expertise and likeability) that may serve as parallel mediators of the relationship between source self-enhancement and persuasion.

# STUDY 1

The purpose of this study is to examine how the salience of an ulterior source motive moderates the impact of source immodesty on interpersonal persuasion. This is achieved by comparing the impact of self-enhancement on the persuasiveness of an information source generally perceived to hold other-centered motives (consumer) versus a source generally perceived to be motived by self-interest (firm agent; H1). While the "schemer schema" in persuasion knowledge is likely to cue elevated salience of an ulterior motive (selling) for firm sources, individuals infer more altruistic motives in consumer sources of the same product information. This difference will moderate the effect of source self-enhancement on persuasion.

# Method

Participants, Design & Procedure. One hundred twenty four (46 female) members of a paid online panel completed the study for a small cash payment. The study employed a 2 (source role: firm agent, consumer) x 2 (source self-enhancement: modest, immodest) between-subjects design. Participants were asked to imagine themselves in a scenario in which they were shopping for an upcoming beach vacation at a travel website called iTravel.com. Upon finding what looks like a promising hotel, the participant is told that before booking, they decide to read a review about the hotel. The source's role is

manipulated by a large badge that appears next to the discussion post, indicating "iTravel.com Top Employee" for the firm agent versus "iTravel.com Top Reviewer" for the consumer source condition (see Appendix). Firm agents are frequently tasked or volunteer to participate in online discussions and/or share their personal opinions about firm-related products online, with varying degrees of identification of the source (Friedman, 2000; Mayzlin, 2006; Smith, Menon, & Sivakumar, 2005), making this a reasonably naturalistic manipulation. Survey research has demonstrated that consumers tend to accept consumer-generated online information posted on forums or bulletin boards more than marketer-generated information in the same settings (Bickart & Schindler, 2001), suggesting that the present study will see a main effect for persuasion in favor of the consumer source.

A paragraph providing the source's opinion about the hotel appears next to the source badge. The source self-enhancement manipulation is delivered in the first, second, and last sentences of text in the product review. In the modest condition, the source starts off with, "From what I can tell, this is a great sun and sand spot. I'm about average when it comes to travel...," and closes with, "I was pretty happy with this place...". In the immodest condition, the source says, "Believe me I know, this is a great sun and sand spot. I'm kind of an expert when it comes to travel..." and closes with, "I was pretty smart for finding this place..." (see Appendix for full stimuli).

#### Measures

*Persuasion*. After reading the source's opinion about the hotel, participants indicated their likelihood to choose that particular hotel (1. Not at all likely to choose this hotel, 7. Very likely to choose this hotel), and reported their attitude towards the same hotel on three seven-point bipolar scales (bad:good, unappealing:appealing, unfavorable:favorable;  $\alpha = .94$ ), providing two dependent measures of participant brand evaluations.

Source Self-Enhancement. Participants were then asked to indicate the extent to which the seven-item IPIP-NEO modesty scale (Costa & McCrae 1992) described the personality of the source (modesty scale  $\alpha$  = .95). This scale includes items such as, "Thinks highly of themselves," "Makes themselves the center of attention," (both reverse scored) and "Seldom toots their own horn". All scale items are provided in the Appendix.

Source Motive. Measures to confirm that word-of-mouth recipients perceived consumer sources of product information as more altruistic and less likely to possess 'ulterior motives' than firm sources were adapted from related research (Hennig-Thurau et al. 2004; Friestad & Wright, 1994; Sundaram, Mitra & Webster, 1998). I asked participants to indicate the extent to which the reason or motivation of the source was altruistic (help inform your choice, provide you with useful information; r = .81, p < .001) versus driven by the self-interested selling motive (try to increase hotel bookings on the website; encourage people to book a hotel at iTravel.com); r = .64, p < .001) on seven-point scales (1 = not at all, 7 = very much).

# Results

Self-Enhancement Manipulation. Analysis of variance revealed that participants assigned to the condition in which the source was self-enhancing (immodest) in the course of sharing product information rated the source significantly lower on the modesty scale (M = 1.35) than those in the modest source condition (M = 3.90; F(1, 120) = 1.89.49, p < .001). There was no main effect for the customer versus firm agent source (F(1, 120) = 1.42, p > .20) or interaction of source and self-enhancement (F < 1). The absence of source role effects is noteworthy in that it reveals participants were as likely to perceive self-enhancement by an immodest consumer (M = 1.52) as they were an immodest firm agent source (M = 1.17). Perceptions of source modesty were also similar across source in the non self-enhancing condition ( $M_{\text{consumer}} = 3.94$ ,  $M_{\text{firm agent}} = 3.85$ ). All

participants correctly identified the source as a customer or firm employee according to condition assignment.

Source Motive Inferences. ANOVA was performed independently for each of the two source motives measures (altruism, selling) as dependent measures, with source (firm agent, consumer) and self-enhancement condition (modest, immodest) as independent variables. For the altruistic motive, this analysis produced main effects for source (F(1, 120) = 5.96, p < .01) and self-enhancement (F(1, 120) = 37.48, p < .001), but not an interaction of the two. For the selling motive, only a main effect for source was observed (F(1, 120) = 4.77, p < .05). Consistent with expectations, participants perceived the consumer source as more motivated by a desire to help others than the firm source ( $M_{\text{consumer}} = 5.75$ ,  $M_{\text{firm}} = 5.37$ ), while the selling motive was more associated with the firm agent than the consumer source ( $M_{\text{firm}} = 4.28$ ,  $M_{\text{consumer}} = 3.69$ ). Source self-enhancement had a negative impact on perceived source altruism ( $M_{\text{modest}} = 6.00$ ,  $M_{\text{immodest}} = 5.10$ ). Table 3.1 presents means for each condition.

TABLE 3.1
SOURCE MOTIVATION MEANS

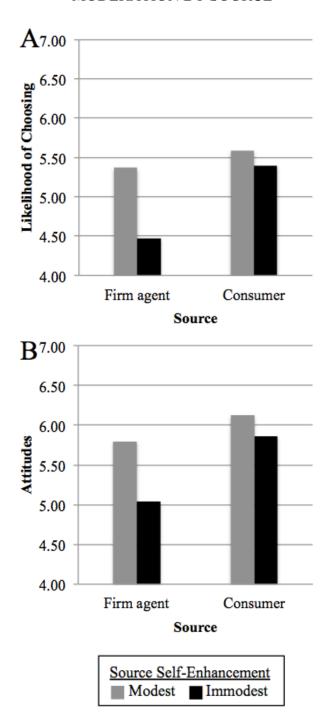
Source	Source self-	Motive for Sharing Product Opinion		
role	enhancement	Altruistic	Selling	
Firm agent	Immodest	4.95	4.35	
	Modest	5.78	4.22	
Consumer	Immodest	5.25	3.87	
	Modest	6.19	3.53	

*Persuasion*. The two dependent measures were each submitted to a 2 x 2 ANOVA with self-enhancement (modesty) and source as the independent variables. For the likelihood of choosing the hotel dependent measure, I found main effects for self-enhancement (F(1, 120) = 10.57, p < .01), source (F(1, 120) = 11.91, p < .01), and an

interaction of the two (F(1, 120) = 4.52, p < .05). As for the pattern of the main effects, source self-enhancement had a negative effect on choice  $(M_{\text{modest}} = 5.48, M_{\text{immodest}} = 4.93)$ , while the consumer source (M = 5.50) was more persuasive than the firm agent (M = 4.92). Breaking down the results by source condition to examine the interaction reveals that for the firm agent, a self-enhancing source  $(M_{\text{immodest}} = 4.47)$  was significantly less persuasive than a more modest source  $(M_{\text{modest}} = 5.37; F(1, 58) = 14.55, p < .001)$ . In contrast, there was no difference in the participant's likelihood of choosing the hotel due to self-enhancement by the consumer source  $(M_{\text{modest}} = 5.59, M_{\text{immodest}} = 5.40; F < 1;$  Figure 3.1, Panel A).

The same analysis of variance was performed with brand attitudes as the dependent variable, which also found a main effect for self-enhancement (F(1, 120) = 11.07, p < .001) and a main effect for source (F(1, 120) = 14.14, p < .001), but an interaction that failed to attain statistical significance (F(1, 120) = 2.63, p = .11). For the source main effect, the consumer produced more positive brand attitudes (M = 5.50) than the firm agent (M = 4.92). While the non-significant interaction does not support the analysis of planned contrasts, the overall pattern of means is similar to that of the choice measure (see Figure 3.1, Panel B).

FIGURE 3.2 MODERATION BY SOURCE



# Discussion

The results of the first study support Hypotheses 1. There was a negative effect for self-enhancement on persuasion by firm agent sources of product information associated with self-interest, but a relatively more positive (null) impact for immodesty on more altruistic consumer sources of the same information. As noted in the manipulation check for source self-enhancement, participants did not merely perceive the firm agent as more immodest, nor was there an interaction of source role with self-enhancement such that immodest firm agents were perceived as more self-enhancing than the equivalent consumer source. This suggests it was not a difference in the perception of immodest behavior by source that drove the results, but the different consequences that this perception had on inferences the recipient made about the source's motive in sharing their product recommendation. In subsequent studies, I measure perceptions of source trustworthiness as a more direct indicator of the 'other-centered' motivation captured by altruism in the present study.

# STUDY 2

In this study, I examine similarity of the source and target as another source cue that may moderate the effect of source self-enhancement on word-of-mouth persuasion. I expect dissimilarity of the source to make trust concerns salient (H5), causing immodesty in the dissimilar (but not similar) source to impede persuasion (H2).

# Method

Participants, Design & Procedure. One hundred twenty-seven members (88 female) of a paid student panel at a U.S. university participated as part of an hour of unrelated studies for cash payment. The study employed a 2 (source similarity: similar,

dissimilar) x 2 (source self-enhancement: modest, immodest) between-subjects design. The procedure and stimuli were nearly identical to Study 1 with exception of the source manipulation. In this study, the source was always a consumer reviewer. To manipulate source similarity, participants saw the online reviewer's user profile immediately prior to reading the review. Similarity was manipulated through source demographic attributes that were presented in the user profile, a similarity dimension and procedure applied previously in related word-of-mouth research (Naylor et al., 2011), and a variable described by Tesser and Campbell (1980, p. 341) as a key dimension of similarity in social comparisons. The user profile presented source information depicting a reviewer who was relatively similar (i.e., same gender, similar age, close geographic location, similar occupation) or dissimilar (opposite gender, older age, distant geographic location, dissimilar occupation; see Appendix for full stimuli) to the participant. Gender was identified at the participant level using the survey software. All other demographic items manipulating the similarity construct were constructed based on panel-level demographics in a manner following Naylor et al. (2001).

# Measures

*Persuasion*. As in the first study, after reading the source's hotel review, participants indicated their likelihood of choosing the hotel reviewed (1. Not at all likely to choose this hotel, 7. Very likely to choose this hotel), and reported their attitude towards the hotel on three seven-point bipolar scales (bad:good, unappealing:appealing, unfavorable:favorable;  $\alpha = .97$ ).

Similarity. For the similarity manipulation check, participants were asked to indicate how similar the reviewer was to them personally using three seven-point items (not at all similar to me:very much similar to me, not at all like me:very much like me, nothing in common with me:very much in common with me;  $\alpha = .97$ ).

Source Self-Enhancement. The IPIP-NEO modesty scale ( $\alpha$  = .93) was again used to confirm source self-enhancement was perceived by participants to be consistent with condition assignment.

Source Credibility Dimensions and Source Certainty. Items regarding source trustworthiness (trustworthy, honest, reliable;  $\alpha$  = .92), expertise (expert, knowledgeable, well-informed;  $\alpha$  = .94), and likeability (attractive, likeable; r = .62, p < .001) were measured to capture the three main dimensions of source credibility. I also assessed perceived source certainty using Karmaker and Tormala's (2009) two-item measure to control for an alternative explanation that source self-enhancement impacts persuasion through the perceived certainty of the source's opinion (confidence, certainty; r = .77, p < .001). All items were measured using seven-point scales.

Results

Similarity. Participants in the similar condition perceived the source to be significantly more like themselves (M = 4.89) than those in the dissimilar condition (M = 3.40; F(1, 126) = 32.17, p < .001), supporting condition assignment. Source similarity did not impact perceived credibility of the source on any of the three dimensions measured (Fs < 2.20, ps > .10).

Source Self-Enhancement. Participants randomly assigned to the self-enhancing (immodest) source condition rated this source lower on the modesty scale ( $M_{\text{immodest}} = 2.33$ ) than those in the modest source condition ( $M_{\text{modest}} = 4.74$ ; F(1, 126) = 225.41, p < .001). There was neither a main effect for source similarity nor an interaction of self-enhancement and similarity on perceptions of source modesty (Fs < 1). Consistent with what I observed for the source moderator in Study 1, participants perceived the same level of source self-enhancement irrespective of source similarity ( $M_{\text{immodest, similar}} = 5.53$ ;  $M_{\text{immodest, dissimilar}} = 5.62$ ;  $M_{\text{modest, similar}} = 3.20$ ,  $M_{\text{modest, dissimilar}} = 3.32$ ). Thus, if source-target similarity moderates the impact of self-enhancement on persuasion, it is not the ability to

perceive self-enhancement, but how the presence of self-enhancement is differentially interpreted for the dissimilar versus similar source that impacts their persuasiveness.

Source Credibility Dimensions and Source Certainty. As for the trust dimension of source credibility, the self-enhancing reviewer was perceived as less trustworthy  $(M_{\text{immodest}} = 4.30)$  than the more modest source  $(M_{\text{modest}} = 4.90; F(1, 126) = 10.12, p > 0.01)$ . The self-enhancing reviewer was also perceived as less likeable  $(M_{\text{immodest}} = 3.81, M_{\text{modest}} = 4.69; F(1, 126) = 24.80, p < .001)$ , yet no more expert than the modest source  $(M_{\text{immodest}} = 4.00, M_{\text{modest}} = 3.78; F(1, 126) = 1.23, p > .25)$ . Finally, for the source certainty covariate the self-enhancing reviewer was perceived as more certain than the modest source  $(M_{\text{immodest}} = 5.55, M_{\text{modest}} = 4.61; F(1, 124) = 24.87, p < .001)$ . There were no significant main effects or interactions for similarity as a predictor of the source credibility variables or source certainty. The three source credibility dimensions are discussed further in the process analysis section of this study. Source certainty was included as a covariate in the main analysis.

*Persuasion.* I submitted each dependent measure to a 2 x 2 ANOVA with source similarity and self-enhancement as the independent variables and source certainty as a covariate. For the likelihood of choosing the recommended hotel dependent variable, I found a main effect for self-enhancement (F(1, 123) = 6.50, p < .05) and an interaction of source similarity and self-enhancement (F(1, 123) = 13.71, p < .001). The source certainty covariate was also significant (F(1, 123) = 22.64, p < .001). Given a demographically similar word-of-mouth source, self-enhancement by the reviewer had a positive effect on choice ( $M_{\text{immodest}} = 5.31, M_{\text{modest}} = 4.72; F(1, 62) = 4.52, p < .05$ ). However, when the hotel review came from a dissimilar source, the opposite pattern was observed ( $M_{\text{immodest}} = 4.44, M_{\text{modest}} = 5.28; F(1, 124) = 7.99, p < .01; Figure 3.3, Panel A).$ 

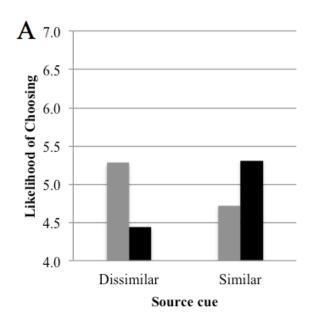
The same analysis was performed with brand attitudes as the dependent variable, which also saw a main effect for source self-enhancement (F(1, 123) = 9.89, p < .01) and

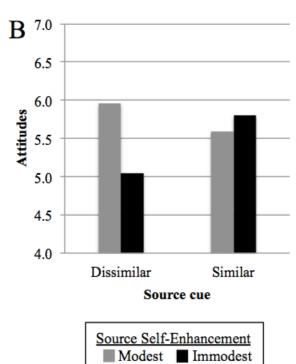
a significant interaction of similarity and self-enhancement (F(1, 123) = 8.68, p < .01). The source certainty covariate was again significant (F(1, 123) = 11.97, p < .01). For the demographically similar source, there was only a directional improvement in attitude towards the product in the immodest (self-enhancing) versus modest source condition ( $M_{\text{immodest}} = 5.80, M_{\text{modest}} = 5.59; F < 1$ ). However, when the hotel review was written by a dissimilar source, participants who read the immodest source's opinion reported significantly lower brand attitudes (M = 5.05) than those who read the more modest review (M = 5.96; F(1, 62) = 10.51, p < .01; Figure 3.3, Panel B).

Process. I next examine whether one or more dimensions of source credibility mediate the relationship between source self-enhancement and persuasion. Specifically, I include the measures for source trustworthiness, expertise and likeability as parallel mediators of the effect of source self-enhancement (using the modesty scale, reversed such that a positive sign represents self-enhancement or "immodesty") on the two persuasion measures (choice preference and brand attitudes). The three-item index measuring the source similarity cue was included as a potential moderator of the effect of source self-enhancement on the three dimensions of source credibility (model 2, Preacher, Rucker, & Hayes, 2007). Analysis was performed using Hayes' PROCESS macro (2012, model 7).

Following Preacher et al., (2007), to assess mediation by the trust dimension of source credibility I first regressed choice on source trustworthiness ( $\beta$  = .48, t(128) = 5.50, p < .001). The second model regressed trustworthiness on self-enhancement, similarity and their interaction, which yielded the expected two-way interaction ( $\beta$  = .14, t(128) = 2.86, p < .01). The third model regressed choice on source self-enhancement, and found a non-significant direct relationship ( $\beta$  = -.08, t(128) = -1.10, p > .25), supporting an indirect-only effect (Zhao, Lynch, & Chen, 2010) consistent with self-enhancement as antecedent to the trust dimension of source credibility.

FIGURE 3.3 MODERATION BY SOURCE-TARGET SIMILARITY





Bootstrap results confirmed conditional indirect effects for the similarity moderator on trustworthiness. Given low similarity (-1SD on the similarity index), perceived trustworthiness mediated the relationship between source self-enhancement and choice (95% CI at 5,000 resamples: -.42, -.06). Moderation of the process by similarity was not supported at high similarity (+1SD, 95% CI: -.11, .08).

TABLE 3.2
SIMPLE MEDIATION BY SOURCE CREDIBILITY DIMENSIONS

	Dependent	Credibilty	Indirect effect	95% CI	Dire	ct effect j	path coeffi	cients
Study	measure	Mediator	(a x b)	(5,000 resamples)	a	b	с	c'
2	Choice	Trust	11*	(26,03)	30**	.38**	.01	06
		Expertise	07	(01, .11)	.12	.23*	.01	06
		Likeability	.01	(10, .13)	44**	03	.01	06
	Brand attitude	Trust	10*	(23,03)	30**	.33*	17 <sup>+</sup>	09
		Expertise	.02	(01, .10)	.12	.14	17 <sup>+</sup>	09
		Likeability	.00	(11, .11)	44**	.01	17 <sup>+</sup>	09
3	Choice	Trust	30*	(47,17)	58**	.52**	-0.73**	-0.42**
	preference	Expertise	02	(08, .02)	25**	.06	-0.73**	-0.42**
	•	Likeability	.01	(05, .10)	34**	04	-0.73**	-0.42**
	Brand attitude	Trust	25*	(50,07)	58**	.43**	89**	66**
	difference	Expertise	.00	(08, .08)	25**	.00	89**	66**
		Likeability	.02	(09, .15)	34**	07	89**	66**

NB: Full moderated mediation models are reported in the text (Moderators: similarity [Study 2], suspicion & relevance [Study 3]) \*\* p < .01, \* p < .05, + p < .10

As to the other two dimensions of source credibility, moderated mediation by self-enhancement and similarity for the choice dependent measure was not supported for expertise or likeability at any level of source similarity (all bootstrap confidence intervals crossed zero; see upper half of Table 3.2).

The same procedure for the brand attitude dependent measure also supports moderated mediation for self-enhancement and similarity by the trustworthiness dimension of source credibility only (but not on dimensions of expertise or likeability).

For the trust dimension, the first model confirms an effect of source trustworthiness on attitudes towards the brand ( $\beta$  = .44, t(128) = 5.21, p < .001). The second model confirms an interaction of self-enhancement and similarity for this dependent measure ( $\beta$  = .14, t(128) = 2.86, p < .01). A third model regressed attitude towards the brand on source self-enhancement, and found a marginally significant direct relationship ( $\beta$  = -.14, t(128) = -1.98, p = .05). When source trustworthiness was added to the third model, the self-enhancement variable fell to non-significance ( $\beta$  = .01, t(128) = .08, p > .90), again supporting indirect-only mediation.

Bootstrap tests for the conditional indirect effect of similarity reveal that, given low (-1SD) source similarity, perceived trustworthiness mediates the relationship between source self-enhancement and brand attitudes (95% CI: -.38, -.05). However, the moderating role of similarity was not upheld at high source similarity (+1SD, 95% CI: -.09, .06). Bootstrap results were non-significant in all conditions for tests of expertise and likeability as mediators of the relationship between source self-enhancement and persuasion.

# Discussion

Study 2 revealed that perceived similarity of the word-of-mouth source moderates the impact of self-enhancement on brand attitudes and choice. Given demographic dissimilarity, trust concerns are made salient, impeding the persuasiveness of the self-enhancing source. In contrast with Study 1, the persuasion results for the more similar source in the present study hints that self-enhancement may indeed sometimes have a positive effect on persuasion in word-of-mouth.

Process analysis confirmed that the source credibility dimension of trustworthiness mediates this effect (H6). Concerns about trustworthiness were operative for the dissimilar source, suggesting this source cue activated uncertainty about the source's motivation in sharing product information. In contrast, it appears that high similarity may

have provided a cue sufficient for individuals to overlook the source's self-enhancement. Given high similarity was not linked to increases in perceived trustworthiness, expertise, or likeability, it is difficult to argue why the immodest, similar source might was significantly (choice) or directionally (brand attitude) more persuasive than the modest, similar source.

Also surprising is the result of the similar source being no more or less persuasive than the dissimilar source in the modest condition. Based on prior research regarding similarity in consumer persuasion, I expected a main effect for similarity on persuasion in favor of the similar source. A plausible explanation of this result is that in the modest condition, the dissimilar source's demographic attributes (e.g., older, employed) suggested to targets that she or he would be more expert about hotels. However, the difference in perceived expertise across similarity conditions was non-significant, failing to support this explanation.

While the current study replicates the results of Study 1 using another variable to manipulate signals of potential distrust among consumer sources (versus the firm agent contrast used in Study 1), both studies have manipulated the nature of the source to make uncertainty about the source's motives salient. This leaves open the possibility that an alternative source factor, such as perceived psychological closeness (Kreilkamp, 1984) between the recipient and source, underlies the results. To address this concern, in the next study, I fix the source and manipulate uncertainty about source motivations through an external factor (generalized suspicion) and the nature of the self-enhancing content of the message (relevance).

# STUDY 3

Study 3 enhances robustness of the effect of source self-enhancement on word-of-mouth persuasion to examine how factors related to the channel environment and message content (rather than source) moderate the effect of source self-enhancement on persuasion. In this study, I examine externally-cued suspicion (H4) and the relevance of the self-enhancing message content to the information exchange (H5) as cues raising uncertainty about the motives of self-enhancing sources in sharing their product recommendations. I also utilize a different product category (health and wellness) and present a somewhat more challenging persuasion challenge for the fictionalized word-of-mouth that results in modified versions of the dependent measures to further enhance robustness.

#### Method

Participants and Design. Two hundred and eight members (125 female) of a U.S. online panel completed the study for a small cash payment. Participants were randomly assigned to a condition in a 2 (external suspicion: suspicion cue vs. no cue) x 3 (source self-enhancement: none, relevant, irrelevant) between-subjects design.<sup>4</sup>

Procedure. Participants agreed to complete a set of unrelated studies. The first study provided the generalized suspicion cue adapting a procedure used by Kirmani and Zhu (2007). Participants were told they would be evaluating a short news article. Two different versions of an article regarding an actor's role in an upcoming theatre production were created. For the suspicion cue version, the article described the actor as portraying a character who was deceptive in order to attain selfish goals. In the no suspicion cue version, no information was provided about the personality or attributes of

<sup>&</sup>lt;sup>4</sup> Self-enhancement condition names have been changed from prior studies for ease of exposition. Relevant and irrelevant conditions are equivalent to "relevant immodest" and "irrelevant immodest", respectively, while the non self-enhancing source condition is equivalent to the "modest" condition in prior studies).

the character played by the actor. The article's context was selected so as to prime generalized suspicion generally, but be unrelated to consumer word-of-mouth or the focal product category specifically (see the Appendix).

To maintain the cover story and assess the stimuli on dimensions unrelated to generalized suspicion, respondents in this study reported their perception of the news article (interesting, informative, believable, meaningful;  $\alpha = .78$ ) and article involvement (involved, engaged, interested;  $\alpha = .88$ ) on seven-point scales. There was no difference in the two versions of the article on either dimension (ps > .20). The results of pretests for this stimuli that were conducted with separate samples from the same population as the main study are reported later.

After receiving the suspicion prime, participants were directed to an unrelated study in which they were asked to imagine they were shopping for vitamins at an online retailer of health and wellness products. The scenario goes on to explain that they have narrowed their choice down to two brands (fictional brands Nutri-Earth and Vitalife). After comparing these two brands carefully, they are told which of the two brands they decide to purchase. Which of the two brands is chosen is counter-balanced in the scenario. The scenario goes on to explain that just as the participant is about to checkout with their chosen brand, they decide to read a consumer review that appears to compare Nurti-Earth and Vitalife. Participants were then presented with one of three versions of the consumer review stimuli, which delivered the source self-enhancement manipulation (none, relevant, irrelevant). In the relevant (irrelevant) self-enhancement condition, the source boasted about his or her experience and status in domains relevant (irrelevant) to vitamin supplements, initiating their review with the statement, "I've been big on nutrition (a big success) all my life, and have the body and health (house and car) to prove it," (see Appendix for full stimuli). The non self-enhancing source (modest) condition did not include either statement. Overall, the research design controls quantity, quality and

manner maxims (Grice, 1975), varying only the relevance (maxim of relation) of the self-enhancing message content of the source.

In all conditions, the source recommends the alternative to the brand that had been previously chosen by the participant (according the scenario). The brand playing the previously chosen versus reviewer-recommended role was counterbalanced in all conditions. This two option choice set paradigm was designed to provide some added conservatism to the results by requiring the word-of-mouth source to persuade participants away from an existing preference (Bass, 1974; Sternthal, Dholakia, & Leavitt, 1978), in this case the participant's chosen brand from the scenario. The consumer review read by the participant provided the only information through which the participant's choice and attitudes might be shifted away from (towards) the participant's chosen (reviewer-recommended) brand.

# Pretests

I conducted a separate pretest (n = 56) to assess the ability of the external suspicion cue (the news article) to generate a significant increment in generalized suspicion, but no change in article perception ( $\alpha$  = .85), involvement ( $\alpha$  = .94), or mood. Mood was captured using the PANAS (Watson, Clark & Tellegen, 1988) scale for positive ( $\alpha$  = .93) and negative ( $\alpha$  = .96) mood. Generalized suspicion was assessed using four items measuring the extent to which the newspaper article made participants feel generally suspicious (suspicious, concerned, wary, mistrustful;  $\alpha$  = .95). All items used seven-point scales. The order of pretest questions was randomized. The two article versions did not differ on the perception items ( $M_{\text{suspicion}}$  = 4.46,  $M_{\text{no suspicion}}$  = 4.62; F < 1), involvement ( $M_{\text{suspicion}}$  = 4.83,  $M_{\text{no suspicion}}$  = 4.27; F(1, 54) = 1.62, p > .20), positive mood ( $M_{\text{suspicion}}$  = 3.05,  $M_{\text{no suspicion}}$  = 2.77; F(1, 54) = 1.38, p > .20), or negative mood ( $M_{\text{suspicion}}$  = 1.29,  $M_{\text{no suspicion}}$  = 1.26; F < 1). There was however a significant effect of the suspicion cue version of the article on the generalized suspicion index ( $M_{\text{suspicion}}$  = 3.08,  $M_{\text{no suspicion}}$  =

1.60; F(1, 54) = 15.26, p < .001). These results confirm the intended generalized suspicion manipulation while supporting equivalence of the article stimuli in terms of the perception items, involvement, and mood effects.

A second pretest (n = 49) using a different group from the same panel assessed whether the self-enhancing (immodest) message content contained in the two self-enhancing review conditions (relevant and irrelevant) had a crossover effect on suspicion, and whether the relevance of the source's self-enhancing statement was consistent with condition assignment. I found non-significant differences in the mean of the four suspicion items ( $\alpha$  = .89) for the three level self-enhancement factor ( $M_{\text{none}}$  = 3.72,  $M_{\text{relevant}}$  = 3.38,  $M_{\text{irrelevant}}$  = 3.45; F < 1) suggesting no crossover effects. Three seven-point items (relevant, useful, applicable;  $\alpha$  = .97) measuring the relevance of the self-enhancing source's message content to the task of choosing a vitamin supplement confirmed a significant difference in relevance by condition in the direction intended ( $M_{\text{irrelevant}}$  = 1.53,  $M_{\text{relevant}}$  = 3.95; F (1, 47) = 28.97, p < .001). There was no crossover effect of relevance of the self-enhancing review content on suspicion ( $M_{\text{irrelevant}}$  = 3.45,  $M_{\text{relevant}}$  = 3.38; F < 1).

#### Measures

Persuasion. Choice preference was measured on a seven-point scale anchored at one by the participant's chosen brand (e.g., Very likely to purchase Vitalife) and at seven by the reviewer's recommended brand (e.g., Very likely to purchase Nutri-Earth; brands counter-balanced). Attitude towards the participant's chosen brand ( $A_{chosen}$ ) and the word-of-mouth source's recommended brand( $A_{recommended}$ ) were captured independently using three bipolar items (bad:good, unappealing:appealing, unfavorable:favorable;  $A_{chosen}$   $\alpha = .96$ ,  $A_{recommended}$   $\alpha = .97$ ).

Source Self-Enhancement and Source Credibility. As in prior studies, participants indicated the extent to which the modesty items from the IPIP-NEO scale ( $\alpha = .91$ )

described the word-of-mouth source for the source self-enhancement check. They then completed the three-item measures of source trustworthiness ( $\alpha = .94$ ) and expertise ( $\alpha =$ .91), and the two-item measure of source likeability (r = .60, p < .001) to be utilized as source credibility variables in process analysis. The same two-item measure of source certainty used in Study 2 was included to control for this potential alternative explanation of the effect of self-enhancement on persuasion (r = .68, p < .001). Results

Self-Enhancement Manipulation. To assess the success of the self-enhancement manipulation I first performed an analysis of variance, which confirmed a significant difference in perceived source modesty across the three self-enhancement conditions (F(1, 205) = 43.35, p < .001). I next collapsed the two self-enhancing (immodest) source conditions (relevant and irrelevant) to contrast these with the non self-enhancing (modest) source condition. Means of the modesty scale for this contrast differ significantly in a direction consistent with condition assignment ( $M_{\text{immodest}} = 2.43$ ,  $M_{\text{modest}}$ = 3.71; F(1, 206) = 65.93, p < .001). The source of the irrelevant self-enhancing statement was also perceived as less modest than the source of the relevant selfenhancing statement ( $M_{\text{irrelevant}} = 2.09$ ,  $M_{\text{relevant}} = 2.79$ ; F(1, 137) = 15.55, p < .001). Finally, each of the two self-enhancing source conditions (relevant or irrelevant) produced modesty scale means significantly lower than the non self-enhancing condition  $(M_{\text{relevant}} = 2.79 \text{ vs. } M_{\text{none}} = 3.71; F(1, 136) = 24.83, p < .001); M_{\text{irrelevant}} = 2.07 \text{ vs. } M_{\text{none}} =$ 3.71; F(1, 137) = 100.69, p < .001).

Tests for crossover effects of suspicion on perceived source self-enhancement found no main effect (F < 1), but did reveal an interaction of suspicion and the collapsed two-level self-enhancement variable (F(1, 204) = 6.84, p < .05). This interaction was driven by lower perceptions of modesty when suspicion was externally primed in the self-enhancing source conditions ( $M_{\text{suspicion}} = 1.17 \text{ vs. } M_{\text{no suspicion}} = 2.70, F(1, 137) =$ 

8.44, p < .01), but a non-significant pattern in the opposite direction for the non self-enhancing source ( $M_{\text{suspicion}} = 2.85 \text{ vs. } M_{\text{no suspicion}} = 2.67, F(1, 67) = 1.35, p > .20$ ). A separate model tested crossovers of suspicion and relevance within the two self-enhancement levels (relevant and irrelevant). This analysis found main effects for both suspicion ( $M_{\text{suspicion}} = 1.17 \text{ vs. } M_{\text{no suspicion}} = 1.70; F(1, 135) = 9.13, p < .01$ ) and relevance ( $M_{\text{relevant}} = 1.79 \text{ vs. } M_{\text{irrelevant}} = 1.09; F(1, 135) = 16.23, p < .01$ ) on perceptions of source modesty, but no interaction (F < 1). Thus, while factors pertaining to the source were previously found to have no effect on perceptions of source modesty (Studies 1 and 2), external primes from the environment and message cues each impacted the extent to which people perceived source self-enhancement. I will speculate on the cause of this result in the discussion section.

Source Credibility Dimensions and Source Certainty. I performed independent 2 x 3 ANOVAs for each of the three source credibility dimensions as dependent measures, and the external suspicion cue (2 level factor) and relevance of the source's self-enhancement (3 level factor) as independent variables. Table 3.3 summarizes condition means for the source credibility dimensions for the full design.

ANOVA for perceived source trustworthiness found a significant main effect of relevance (F(2, 202) = 16.30, p < .001) such that the irrelevant self-enhancer (M = 3.63) was perceived as less trustworthy than either the relevant self-enhancer (M = 4.51; F(1, 137) = 15.58, p < .001) or the no self-enhancement source (M = 4.78; F(1, 137) = 27.97, p < .001). I also found a significant interaction of suspicion and relevance (F(2, 202) = 7.41, p < .01) on trustworthiness. The interaction pattern is driven by marginally heightened trust in the no self-enhancement source when suspicion was externally cued ( $M_{\text{suspicion}} = 5.07$ ,  $M_{\text{no suspicion}} = 4.50$ ; F(1, 67) = 3.91, p = .05), and a significant pattern in the opposite direction given a source whose self-enhancing statement was irrelevant to the information exchange ( $M_{\text{suspicion}} = 3.13$ ,  $M_{\text{no suspicion}} = 4.13$ ; F(1, 68) = 11.15, p < .01).

This unexpected interaction might be interpreted as activation of heightened trust in modest word-of-mouth sources by the suspicion cue given the 'default' inference of altruism in this source. The strength of the altruism inference may be such that only when the irrelevance of the source's self-enhancement was blatant did the suspicion cue activate source distrust.

Performing the same analysis with perceived source expertise as the dependent measure found a significant main effect for relevance (F(2, 202) = 5.43, p < .01). Participants rated the irrelevant self-enhancer as less expert (M = 3.62) than both the relevant self-enhancer (M = 4.35; F(1, 137) = 10.03, p < .01) and the no self-enhancement control (M = 4.11; F(1, 137) = 4.16, p < .05). There was neither a main effect of the suspicion cue nor an interaction of the suspicion cue with relevance on perceived source expertise (Fs < 1). Thus, while the more relevant self-enhancer produced a non-significant positive effect on perceived source expertise, more blatantly irrelevant self-enhancement hurt the source's perceived expertise in the product category. Also worth noting is that the suspicion cue significantly increased perceived expertise in the non self-enhancing source condition (see Table 3.3). As seen in the trustworthiness variable, it appears that the suspicion cue may have increased positivity towards word-of-mouth sources in this context in the absence of source self-enhancement.

As for the likeability dimension of source credibility, analysis of variance revealed only a main effect of relevance of the source's self-enhancing statement (F(2, 202) = 8.15, p < .001). The irrelevant self-enhancer was perceived as less likeable (M = 3.65) than both the relevant self-enhancer (M = 4.24; F(1, 137) = 12.66, p < .01) and the non self-enhancing source (M = 4.32; F(1, 137) = 9.72 p < .01).

Finally, in regards to the source certainty covariate, there was a main effect of relevance on this variable (F(2, 202) = 4.07, p < .05), such that the relevant self-enhancer was seen as more certain than the non self-enhancer ( $M_{\text{relevant}} = 5.99$ ,  $M_{\text{none}} = 5.51$ ; F(1, 1)

136) = 8.34, p < .01). The irrelevant self-enhancer fell between these two conditions ( $M_{\text{irrelevant}}$  = 5.76), and was not perceived to be significantly different in certainty from either (Fs < 2.15, ps > .10). I therefore include this covariate in the main analysis that follows.

TABLE 3.3
SOURCE CREDIBILITY MEANS

Credibility Dimension	Source Self-Enhancement			
External Cue	None	Relevant	Irrelevant	
Trust				
Suspicion	5.07 <sup>a</sup>	4.59 <sup>ab</sup>	3.13 <sup>d</sup>	
No Suspicion	4.50 ab	4.43 bc	4.13 <sup>c</sup>	
Expertise				
Suspicion	$4.41^{a}$	4.48 <sup>a</sup>	3.41 <sup>c</sup>	
No Suspicion	3.82 bc	4.22 ab	3.82 bc	
Likeability				
Suspicion	4.38 a	$4.12^{a}$	3.64 b	
No Suspicion	4.26 <sup>a</sup>	4.36 <sup>a</sup>	3.66 <sup>b</sup>	

Condition means that fail tests of difference in means (p < .05) share an alphabetical subscript for each credibility dimension.

*Persuasion*. A 2 (suspicion) x 3 (self-enhancement) ANOVA using the choice preference item as the dependent variable produced a significant main effect for externally-cued suspicion (F(1, 201) = 11.09, p < .01), a main effect for the three-level source self-enhancement variable (F(2, 201) = 27.02, p < .001), and an interaction of the two (F(2, 201) = 5.07, p < .01). The source certainty covariate was also significant (F(1, 201) = 8.44, p < .01). Comparison of the cell means (summarized in Table 3.4) reveals no difference in choice preference due to the suspicion cue within the no self-enhancement condition ( $M_{\text{suspicion}} = 5.71$ ,  $M_{\text{no suspicion}} = 5.51$ ; F < 1). In the absence of the suspicion cue,

the word-of-mouth source whose self-enhancement statements were relevant to the information exchange was no more or less persuasive than the non self-enhancing source  $(M_{\text{relevant}} = 5.34, M_{\text{none}} = 5.51; F < 1)$ . However, the irrelevant self-enhancer was significantly less persuasive than the non self-enhancing source under the same lack of generalized suspicion  $(M_{\text{irrelevant}} = 4.71, M_{\text{none}} = 5.51; F(1, 68) = 6.25, p < .05)$ . Only when suspicion was externally cued were both the relevant (M = 4.59; F(1, 66) = 16.83, p < .001) and irrelevant (M = 3.60; F(1, 67) = 61.40, p < .001) self-enhancer less persuasive than the non self-enhancing source (M = 5.71) as measured by choice preference. Notably, the sole condition in which the participant rejected (albeit marginally) the source's recommendation in favor of purchasing their own previously chosen brand was when (a) suspicion was externally cued *and* (b) the source's self-enhancement was irrelevant to the choice context (M = 3.6 vs. scale midpoint of 4.0; t(34) = -1.91, p < .10).

In terms of brand attitudes, I focus on the modified dependent measure previously suggested as offering some enhanced conservatism of the results. Specifically, I report the difference in brand attitudes between the source's recommended brand relative to the participant's chosen brand (Brand attitude difference =  $A_{\text{recommended}} - A_{\text{chosen}}$ ), where a positive (negative) result indicates brand attitudes in favor of the source's recommended brand (the participant's chosen brand) and zero suggests attitudinal equivalence towards the two brands. Table 3.4 summarizes condition means for attitudes towards each of the two brands independently. Results using the independent brand attitude measures are consistent with the derived brand attitude difference variable reported in detail below.

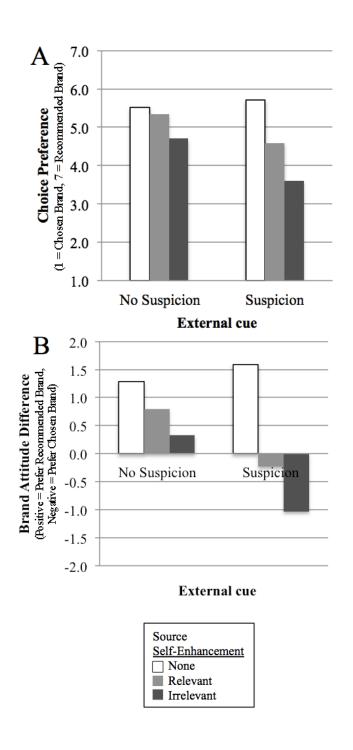
A 2 (suspicion cue) x 3 (source self-enhancement) ANOVA for the brand attitude difference dependent measure produced significant main effects for suspicion (F(1, 201)) = 9.11, p < .01), source self-enhancement (F(2, 201) = 21.12, p < .001), and a significant interaction of the two (F(2, 201) = 4.76, p = .01). The source certainty covariate was non-

significant in this model  $(F \le 1)$ . Breakdowns reveal a pattern of results similar to the choice preference dependent measure. There was no difference in attitudes towards the two brands due to the suspicion cue within the control condition ( $M_{\text{suspicion}} = 1.59$ ,  $M_{\text{no}}$ suspicion = 1.28; F < 1). In the absence of the suspicion cue, self-enhancing had no detrimental effects on the difference in brand attitudes when the immodest source claims were relevant to the information exchange ( $M_{\text{relevant}} = .79$ ,  $M_{\text{none}} = 1.28$ ; F(1, 68) = 1.87, p> .15). In contrast, the irrelevant self-enhancer was significantly less able to shift attitudes towards their recommended brand than the non self-enhancer ( $M_{irrelevant} = .33$ ,  $M_{none} =$ 1.28; F(1, 68) = 6.22, p < .05). Only when suspicion was externally cued were both the irrelevant (M = -1.03; F(1, 67) - 52.46, p < .001) and relevant (M = -.23; F(1, 67) =20.35, p < .001) self-enhancer significantly less capable of improving participant brand attitudes for the recommended brand (relative to the chosen brand) than the non selfenhancing source (M = 1.59). As with the choice variable, the presence of both an external suspicion cue and an irrelevant self-enhancer were required for the participant to hold brand attitudes that reject the source's recommendation in favor of the participant's previously chosen brand (M = -1.03 vs. scale midpoint of 0; t(35) = -3.43, p < .01).

TABLE 3.4
BRAND ATTITUDE MEANS

		Sourc	Source Self-Enhancement		
External cue	Attitude towards	None	Relevant	Irrelevant	
Suspicion	Recommended brand	5.83	4.69	4.13	
	Chosen brand	4.23	4.95	4.79	
No Suspicion	Recommended brand	5.55	5.43	5.05	
	Chosen brand	4.27	4.64	4.72	

FIGURE 3.4
MODERATION BY SUSPICION AND RELEVANCE



Process. Moderated mediation analysis was conducted to assess the source credibility dimensions of expertise, trustworthiness, and likeability as parallel mediators of the effect of source self-enhancement (using the modesty scale as a continuous measure, reversed such that a positive sign represents self-enhancement or "immodesty") on the two persuasion measures (choice preference and brand attitude shift). The suspicion index and three-level relevance variables were then independently added as potential moderators of the effect of source self-enhancement on the parallel source credibility mediators (Preacher, Rucker, & Hayes, 2007, model 2). The results of simple bootstrap mediation analysis (excluding the moderators) are provided in Table 3.2 to report a replication test of the same model used in Study 2. Study 3 successfully replicates the significance of the credibility dimension of trust, but not expertise or likeability as mediators of the main effect. A notable difference across the two studies is the absence (presence) of direct effects for self-enhancement in Study 2 (Study 3), a difference I will address briefly in the general discussion.

Results of five statistical tests for each of 12 different models are required to fully report moderated mediation results for each of the two moderators (suspicion and relevance), three mediators (trust, expertise and likeability) and two dependent measures (choice preference and brand attitude shift) examined in this study. Based on the results of these 12 models, I present full reporting for the models including the trustworthiness mediator only. I minimize reporting of parametric tests and focus only on omnibus bootstrap results for other moderated mediation models given the absence of statistical significance for either the moderator (relevance) or the mediator (expertise, likeability) in these.

External suspicion moderator. I first report parametric tests for the suspicion cue as a moderator of trustworthiness for each of the two dependent measures. The first model regressed choice preference on perceived trustworthiness of the source (b path;  $\beta$  = .63, t(208) = 11.19, p < .001). The second model regressed trustworthiness on self-enhancement, the suspicion cue and their interaction, which yielded the expected two-way interaction (a path;  $\beta$  = -.39, t(208) = -3.70, p < .001). The third model regressed choice preference on source self-enhancement, and found a significant negative direct relationship (c path;  $\beta$  = -.83, t(208) = -6.68, p < .001). When trustworthiness was added to the third model, the independent variable directionally decreased in significance (c' path:  $\beta$  = -.41, t(208) = -4.24, p < .001). Based on the sign of the a x b x c path, complementary mediation is supported (Zhao, Lynch & Chen, 2010). Bootstrap tests of indirect conditional effects confirm moderation of this mediation pattern for participants who saw the suspicion cue (95% CI: -.55, -.16), but not for participants in the no suspicion condition (95% CI: -.21, .08). Therefore, moderated mediation is sustained for the moderating impact of externally-primed suspicion on the trustworthiness mediator.

I next report the same analysis for the brand attitude difference dependent variable. Parametric and bootstrap tests revealed a similar pattern supporting moderated mediation for suspicion (moderator) and trustworthiness (mediator), but not the expertise or likeability moderators. Perceived source trustworthiness predicted the difference in brand attitudes (b path:  $\beta = .54$ , t(208) = 6.15, p < .001). A regression of trustworthiness on self-enhancement, the suspicion cue and their interaction, yields the same two-way interaction previously reported (a path:  $\beta = -.39$ , t(208) = -3.70, p < .001). Regression of brand attitude difference on source self-enhancement found a significant negative direct relationship (c path:  $\beta = -.89$ , t(208) = -6.09, p < .001). When trustworthiness was added to the third model, the independent variable decreased in strength (c' path:  $\beta = -.66$ , t(208) = -4.43, p < .001). Based on the sign of the  $a \times b \times c$  path, complementary

mediation is supported (Zhao, Lynch & Chen 2010). Trustworthiness mediated the relationship between source self-enhancement in the presence of suspicion (95% CI: -.57, -.06), but not in its absence (95% CI: -.21, .05), confirming moderated mediation.

Bootstrapping confidence intervals for the expertise and likeability dimensions of source credibility crossed zero at both levels of the suspicion variable, failing to support a similar process for these dimensions of source credibility.

Relevance moderator. I now report the same analysis examining relevance of the self-enhancing message content as a three level moderator of the path between source self-enhancement and the trustworthiness mediator. The first model regressed the dependent measures on perceived trustworthiness of the source, revealing significance for this effect for both choice preference (b path;  $\beta$  = .57, t(208) = 6.49, p < .001) and brand attitude difference (b path;  $\beta$  = .52, t(208) = 3.85, p < .001). The second model regressed trustworthiness on self-enhancement, the three level relevance variable and their interaction, which failed to achieve significance (a path;  $\beta$  = -.05, t(208) = -.51, p > .60), indicating no interaction for the moderator and self-enhancement independent variable. Bootstrap tests also fail to support relevance as a moderator of the a path. Instead, confidence intervals support mediation by trust at all three levels of the relevance variable for both the choice preference (non self-enhancing 95% CI: -.32, -.05; relevant self-enhancing 95% CI: -.32, -.09; irrelevant self-enhancing 95% CI: -.34, -.03; relevant self-enhancing 95% CI: -.33, -.06; irrelevant self-enhancing 95% CI: -.34, -.03; relevant self-enhancing 95% CI: -.33, -.06; irrelevant self-enhancing 95% CI: -.31, -.05).

While both parametric and bootstrap tests indicate that the trust mediator is operative at all levels of relevance, the indirect (a x b) path coefficients increase in size at each level of the relevance moderator for both the choice preference and brand attitude difference dependent measures (non self-enhancing a x b = -.16 and -.15; relevant self-enhancing a x b = -.18 and -.17; irrelevant self-enhancing a x b = -.21 and -.19). This is

directionally consistent with the finding that evidence that source distrust increases with the irrelevance of the source's self-enhancement (Table 3.3).

#### Discussion

The pattern of results observed in Study 3 reveals that factors pertaining to the external environment (H3) and message content (H4) make concerns about the trustworthiness of a self-enhancing source salient, negatively impacting his or her ability to persuade others. The same factors had no effect on the persuasiveness of modest sources of word-of-mouth information. This study confirmed that uncertainty about the source's motives could be made salient with the same source by manipulating an external factor (generalized suspicion), using a new product category context, and applying a slightly more conservative operationalization of the persuasion dependent variables. This study also largely replicates the mediation results observed in Study 2, with trustworthiness the central process by which immodesty impacts word-of-mouth persuasion (H5), and a decrease in likeability due to immodesty that has no subsequent effect on persuasion (H6).

# **GENERAL DISCUSSION**

The results of three experiments suggest that modesty is not in itself a virtue-- or immodesty a vice-- when it comes to word-of-mouth persuasion. Factors pertaining to the source, external environment, or message content that make uncertainty about the source's intentions salient are necessary for this behavior to impact consumer-to-consumer persuasion. Study 1 revealed that immodesty impeded persuasion of a normatively self-centered source (firm agent), but not for a normatively altruistic (consumer) source of the same product information. This study provided initial evidence that concerns about the motivation of the source in sharing information-- that is, their

trustworthiness-- may underlie the relationship between source self-enhancement and word-of-mouth persuasion. Studies 2 and 3 replicated and extended this finding, revealing that factors pertaining to the source (dissimilarity), message (relevance), or externally cued by the environment (generalized suspicion) increase uncertainty about the motives of an immodest consumer source of product information, leading to trust concerns and damaging persuasion. As revealed in the results for the self-enhancement manipulation checks (modesty scale), this was not due merely to a differential ability to perceive self-enhancement based on the nature of the source, but instead by how recipients of the product information interpreted this behavior in light of uncertainty in the source's trustworthiness.

While the present work develops its predictions by leveraging theory and findings from the source credibility, self-presentation, and persuasion knowledge literatures, it is primarily concerned with addressing an important substantive question. Self-enhancement has been demonstrated as a leading motive and behavior in word-of-mouth transmission (DeAngelis et al., 2012; Packard & Wooten, 2012; Wojnicki & Godes, 2012). To my knowledge, this research is the first to examine the consequences of self-enhancement on attitude change in any persuasion domain.

Second, this research provides support for the importance of the trust dimension of source credibility in word-of-mouth persuasion. This evidence fills a gap in an experimental literature that has largely focused on consumer inferences of source expertise (e.g., Feick & Higie, 1992; Karmaker & Tormala, 2009) or whether the source's information is diagnostic to a specific choice problem (e.g., Gershoff et al, 2001). This research is also somewhat unique in its assessment of a single antecedent that can plausibly affect the 'top three' dimensions of credibility (expertise, trustworthiness and likeability). I propose that this occurs because self-enhancement is inherently an attempt to manipulate one's own credibility. When the word-of-mouth source seeks to lay claims

to their own credibility (i.e., expertise), the recipient must assess whether the claim itself is credible (i.e., trustworthy). This is a genuine challenge for both senders and recipients of product information in the online marketplace, where objective information about the source is often scarce or absent. In many online contexts, the consumer has little information with which to gauge source credibility other than the review, posting or recommendation itself.

This chapter also bridges the conceptual frameworks of source credibility research with that of research concerned with immodesty in self-presentation. While the latter theorizes social perceptions of competence versus likeability as the focal trade-off confronting self-enhancing actors (Godfrey et al., 1986; Jones & Pittman, 1982; Schlenker & Leary 1982), I leverage the source credibility to demonstrate that another social perception dimension may be important to immodest actors: trustworthiness. The present research achieves this by examining a downstream consequence of source immodesty (persuasion) for which perceptions of trustworthiness are salient.

From a managerial point of view, the present research may help guide firms attempting to maximize the economic benefits of consumer social interactions they facilitate online. As an inherent advantage of word-of-mouth persuasion is heightened trust in the source (Nielsen, 2009; 2012), firms wish to minimize factors that increase trust concerns. For example, while some websites instruct potential consumer reviewers to let readers, "know a bit about you" (La Fon, 2009) in the course of writing their review, websites may wish to discourage reviewers from making positive assertions about their own product experiences or expertise. Online retailers may also wish to take some simple actions to mitigate the generalized suspicion of online shopping (Benedicktus et al., 2010; Reichheld & Schefter, 2000), which beyond its direct effects for the e-tailer, activates trust concerns about self-enhancing sources of word-of-mouth information. For example, the present research provides additional support for the use of

website messaging to prime generalized trust (e.g., VeriSign Trusted website seal) or trust in consumer reviews specifically (e.g., "rate the reviewer"), thereby reducing a loss in sales that can be caused by rejection of the recommendations of self-enhancing sources of word-of-mouth.

The present research also suggests that online retailers and consumer opinion portals might wish to more carefully assess the prominence of demographic information provided in reviewer profiles. Assuming that many such websites serve heterogeneous national or international markets, consumers will frequently come across reviewers with dissimilar demographics. The present research suggests this may cue distrust in the source, impeding persuasion if other factors (such as source self-enhancement) raise uncertainty about the source's credibility. This recommendation is corroborated by Naylor et al. (2011), who found that "no profile" was better than a dissimilar demographic profile when it comes to persuasion via online product reviews.

Consumers may also find some straightforward implications from the present research. First, the findings suggest that under the circumstances examined here, consumer sources of word-of-mouth information are relatively unlikely to bolster their perceived expertise through self-enhancement. While there was a null or positive impact for self-enhancement in the absence of the moderating factors examined in this research, these factors impeded persuasion for the immodest source. Individuals that use word-of-mouth information to inform their own attitudes and choices may benefit from the knowledge that 'self-centered' motives are both present (in sources) and influential (on recipients) in this context. While the present research does not demonstrate that immodest sources of word-of-mouth information are less knowledgeable, other research suggests self-enhancing sources are likely to be overly positive about their product experiences (DeAngelis et al., 2012; Packard & Wooten, 2012; Wojnicki & Godes, 2012) and share less information about the product to accommodate more information about his or her

self (Packard & Wooten, 2012). Given consumers tend to believe positive reviews are more diagnostic than negative reviews (Gershoff, Mukherjee, & Mukhopadhyay, 2007), and are not influenced by source self-enhancement in the absence of secondary factors (the present research), consumers may in many cases be easily influenced by a source who is at least partially motivated by selfish rather than altruistic goals.

Like most research conducted in a laboratory setting, caution must be exercised before generalizing the results found here to contexts beyond those studied. Research examining self-enhancement in oral or "off-line" word-of-mouth exchanges represents one potential variable that may impact the effects observed. The persuasiveness of immodest sources of product information may also be moderated by the relative strength of the recipient's motive to obtain accurate information. For example, social comparison or relationship motives may be salient to the word-of-mouth recipient, especially in traditional (offline) information exchanges. In the social comparison case, recipients may reject the immodest source's information due to a desire to punish or distance themselves from this source rather than concerns of source trustworthiness. In the relationship case, targets may be more accepting of immodesty in the knowledge that rejecting the source's recommendation may diminish reciprocity with the source in the future. Research leveraging Kunda's (1990) motivated reasoning theoretical framework might help frame such an investigation.

The findings of the present research may also be related by the nature of the word-of-mouth stimuli presented. For example, the argument made by the Study 3 source that, "I don't get sick as much since I started taking (vitamin brand)," may have been perceived as exceedingly weak, causing the more negative expertise inferences for the self-enhancing source in this study relative to the Study 2 source (see Table 3.2). While the stimuli used in this study were informed by the author's informal survey of real online reviews, future research could enhance robustness and external validity by examining a

large, random sample of word-of-mouth information obtained from a real online retailer or opinion portal.

The nature of the product categories used may also be a factor worthy of further exploration. For example, I speculate that differences in the product categories used in Studies 2 and 3 may account for some of the differences in mediation results across these studies (Table 3.2). The negative expertise inferences for the self-enhancing source in Study 3 may have been influenced by the fact that vitamin supplements are a credence good (Darby & Karni, 1973), for which knowledge of the objective quality or efficacy of the product is not realistically attainable. Individuals claiming expertise in such goods may be perceived as particularly low in credibility (Emons, 1997). In contrast, for the experience good (a hotel) used in Study 2, a source claiming extensive travel experience might be seen as making a more reasonable claim of expertise, enhancing credibility somewhat.

A prime objective for continued work on this line of research is identifying factors that might result in positive effects of source immodesty on credibility and persuasion. One potentially useful factor on this front is whether independent evidence supports the source's self-enhancing claims. For example, people playing expert roles known for their lack of modesty (e.g., medical surgeons, fashion critics) or that are simply well-credentialed in their domain (e.g., awards, degrees, public recognition) might successfully enhance their own credibility given they possess evidence supporting their immodest statements. In this case, self-enhancement could bolster 'default' perceptions of source expertise, this 'third-party' information might lower the flag of uncertainty otherwise raised by immodesty, and bolster perceptions of source expertise. If so, credentialed individuals may represent a condition under which immodesty increases interpersonal persuasion.

Much persuasion research has leveraged the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986) or the Heuristic-Systematic Model of information processing (HSM; Chaiken, 1980). Under both models, the use of peripheral (ELM) or heuristic (HSM) cues such as those pertaining to credibility perceptions are more likely to be employed under conditions of low (vs. high) involvement. The fact that a dimension of source credibility mediated the effects of self-enhancement on persuasion (Studies 2-3) suggest that the peripheral route to persuasion was indeed active (low involvement). Future research may explore how target involvement in the product decision and/or the source's argument strength moderate the persuasion of self-enhancing sources of word-of-mouth information.

In conclusion, this research demonstrates that in the case of sources of word-of-mouth information, immodesty is not itself a vice. However, when commonly accessible factors pertaining to the source, message or environment highlight uncertainty about the source's motive in sharing their product recommendation, self-enhancement impedes persuasion. It is my hope that the present research may help inform consumers as they persuade and evaluate one another in word-of-mouth exchanges, help firms manage the economic benefits of consumer social interactions online, and guide future explorations of the impact of source self-enhancement on persuasion.

# Chapter 4

#### Conclusion

While decades of research has been spent examining why and how advertising and salespeople influence consumers, only recently has there been a drive to gain deep insights regarding the psychological motives at play when consumers persuade one another. The two essays presented in this dissertation contribute insight on one such motive, self-enhancement, by identifying a cause (Chapter 2) and effect (Chapter 3) of self-enhancement in the context of online exchanges of word-of-mouth information. I hope this research encourages further exploration of the dynamic nature of consumer knowledge beliefs, the impact of these beliefs on word-of-mouth and other important behaviors such as information search and choice, and how people manage the self-enhancement goals of themselves and others in consumption-related settings.

#### **APPENDIX**

## Chapter 2, Self-Discrepancy Priming Tasks

For Studies 2 and 4, the word "music" or "movie" appeared where "(*category*)" appears in the text below. For Studies 1 and 3, no word appeared in this space as these studies manipulated global consumer knowledge self-concepts.

## Low knowledge discrepancy priming tasks

#### Task 1

We'd like you to reflect for a moment on the kind of person you are as a (category) consumer. By (category) consumer, we mean someone who shops for, purchases and/or uses (category) products and services.

Specifically, we're interested in how "savvy" you actually are as a (category) consumer.

Once you've thought about this for a minute, please describe how savvy you are as a (*category*) consumer in your own words in the space below.

#### Task 2

Now, please list at least five personal attributes\* <u>you possess when it comes to being an informed (category) consumer</u>. These can be single words or short phrases.

\*By "attributes" we mean personal characteristics, qualities, or abilities.

#### Task 3

Lastly, please describe any change over the years you've perceived in terms of how knowledgeable you actually are as a (*category*) consumer.

# High knowledge discrepancy priming tasks

#### Task 1

We'd like you to reflect for a moment on the kind of person you would ideally like to be as a (*category*) consumer. By (*category*) consumer, we mean someone who shops for, purchases and/or uses (*category*) products and services. Specifically, we're interested in how "savvy" you would ideally like to be as a (*category*) consumer.

Once you've thought about this for a minute, please describe how savvy

you would ideally be as a (*category*) consumer in the space below. *Task 2* 

Now, please list at least five personal attributes you wish you possessed when it comes to being an informed (*category*) consumer. These can be single words or short phrases.

#### Task 3

Lastly, please describe any change over the years you've perceived in terms of how knowledgeable you would ideally be as a (*category*) consumer.

# Actual consumer knowledge self-concept manipulation check

- 1. I am knowledgeable about (category) products and services generally
- 2. I am a savvy (category) consumer
- 3. I am well informed about (category) products and services

# Ideal consumer knowledge self-concept manipulation check

- 1. I wish I was more knowledgeable about (category) products and services generally
- 2. I would like to be a savvier (category) consumer
- 3. I would ideally be more well informed about (category) products and services

# Chapter 3, IPIP NEO 5 Modesty subscale items (Costa & McCrae, 1992)

- 1. Believes they are better than others
- 2. Thinks highly of themselves
- 3. Has a high opinion of themselves
- 4. Makes themselves the center of attention
- 5. Dislikes talking about themselves (R)
- 6. Considers themselves an average person (R)
- 7. Seldom toots their own horn (R)

## Chapter 3, Study 1 Stimuli

Product information stimuli: Consumer source x immodest source condition



#### Believe me I know, this is a great sun and sand spot

I'm kind of an expert when it comes to travel experience, and have been down to this area before. If you're looking for someplace clean, close to the beach, and near the nightlife but far enough to just hang out if that's what you want, this is it. The rooms are up-to-date and well maintained for this area... I've visited a couple other hotels there. Food was great. I was pretty smart for finding this place, and think you'll like it."

Product information stimuli: Firm agent source x modest source condition



From what I can tell, this is a great sun and sand spot I'm about average when it comes to travel experience, but have been down to this area before. If you're looking for someplace clean, close to the beach, and near the nightlife but far enough to just hang out if that's what you want, this is it. The rooms are up-to-date and well maintained for this area... I've visited a couple other hotels there. Food was great. I was pretty happy with this place, and think you'll like it.

# Chapter 3, Study 2 Stimuli

User profile stimuli: Similar source condition

#### **Reviewer Profile**

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Username: LTravell...

Gender: [Automated field: Same as participant]

Age: 21

Hometown: Dearborn, MI

Education: University of Michigan

Occupation: Student

\_\_\_\_\_

User profile stimuli: Dissimilar source condition

## **Reviewer Profile**

.....

Username: LTravell...

Gender: [Automated field: Opposite of participant]

Age: 31

Hometown: Cheyenne, WY

Education: University of Wyoming Occupation: Employed part-time

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Consumer review stimuli: Immodest source condition

## Believe me I know, this is a great sun and sand spot

I'm kind of an expert when it comes to travel experience, and have been down to this area before. If you're looking for someplace clean, close to

the beach, and near the nightlife but far enough to just hang out if that's what you want, this is it. I found this hotel good value for the money. The rooms are up-to-date and well maintained for this area (I've visited a couple other hotels there). Food was great. I was smart for finding this place, and now you can... more.

Consumer review stimuli: Modest source condition

## From what I can tell, this is a great sun and sand spot

I'm about average when it comes to travel experience, but have been down to this area before. If you're looking for someplace clean, close to the beach, and near the nightlife but far enough to just hang out if that's what you want, this is it. I found this hotel good value for the money. The rooms are up-to-date and well maintained for this area (I've visited a couple other hotels there). Food was great. I was happy with this place, and now you can... more.

## Chapter 3, Study 3 Stimuli

Suspicion prime: Newspaper article

# Jane Krakowski to star as deceptive nanny in true-to-life play 'Deranged'

The former "Ally McBeal" and "30 Rock" star will headline in the psycho-thriller "Deranged" on stage at the Elgin Theatre in June 2012. "Deranged" is based on the real-world story of a nanny who tried to earn the affections of a young mother's husband and children. "This person was just so... devious," Krakowski said in a statement, "She wants so badly for people to love her, and you see her become this lying, self-interested person who nobody can trust. It just shows how easy it is to be fooled." Based on the non-fiction bestseller by A. W. Ronson, co-stars include Grammy-nominated R&B singer Keith Washington and Carl Anthony Payne II.

No suspicion prime: Newspaper article

## Jane Krakowski to star in reprisal of hit musical play 'Chicago'

The former "Ally McBeal"and "30 Rock" star will headline in the musical "Chicago" on stage at the Elgin Theatre in June 2012. "Chicago" sees Givens' playing Roxie Hart, one of the main showgirls featured in the popular musical. "Reprising this role is very exciting for me," Krakowski said in a statement. "I'm thrilled to be back on stage in this truly wonderful Broadway production. I'm looking forward to what I hope will be another long and successful run of the show in other major cities."

Based on the Bob Fosse book, co-stars include Grammy-nominated R&B singer Keith Washington and Carl Anthony Payne II.

Scenario introduction (all conditions; brands counter-balanced)

Imagine you are shopping online for a natural vitamin supplement. You are about to choose between two major brands, Nutri-Earth and Vitalife. The website at which you're about to make your purchase sells both brands in the same unit size bottle, and for exactly the same price. Frankly, you can't tell much of a difference between the two. You're pressed for time, and are about to choose Nutri-Earth, when you see a consumer review on the site that appears to compare the two brands. You decide to give the review a read before making your choice.

Consumer review stimuli: No self-enhancement condition (brands counterbalanced)

```
Nutri-Earth vs. Vitalife
```

By: m Leeson31, May 19, 2012

Both of these multis have everything you can ask for plus all the essential amino acids. I took Nutri-Earth for a while, but changed to Vitalife and I'm sticking with it. It's rated at least as good as the mega brands, which aren't natural, bio-available, etc. Seems like I don't get sick as much since I started taking Vitalife, even when my friends have colds or flu. Go Vitalife and you can thank me later!

Consumer review stimuli: Relevant self-enhancement condition (brands counterbalanced)

#### Nutri-Earth vs. Vitalife

By: m Leeson31, May 19, 2012

I've been big on nutrition all my life, and have the body and health to prove it, so you can take my opinion seriously. Both of these multis have everything you can ask for plus all the essential amino acids. I took Nutri-Earth for a while, but changed to Vitalife and I'm sticking with it. It's rated at least as good as the mega brands, which aren't natural, bio-available, etc. Seems like I don't get sick as much since I started taking Vitalife, even when my friends have colds or flu. Go Vitalife and you can thank me later!

Consumer review stimuli: Irrelevant self-enhancement condition (brands counterbalanced)

#### Nutri-Earth vs. Vitalife

By: m Leeson31, May 19, 2012

I've been a big success all my life, and have the house and car to prove it, so you can take my opinion seriously. Both of these multis have everything you can ask for plus all the essential amino acids. I took Nutri-Earth for a while, but changed to Vitalife and I'm sticking with it. It's rated at least as good as the mega brands, which aren't natural, bio-available, etc. Seems like I don't get sick as much since I started taking Vitalife, even when my friends have colds or flu. Go Vitalife and you can thank me later!

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