24th Annual

Robert Mittelstaedt Doctoral Symposium Proceedings

April 2 – 4, 2015

Doctoral Research in Marketing

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ACKNOWLEDGEMENT

The Marketing Department would like to thank the Dean Donde Plowman and the Dean’s Office in the College of Business Administration for the partial financial support for this symposium. We also thank Michelle Jacobs for all of her assistance in organizing the symposium.

ROBERT MITTELSTAEDT DOCTORAL SYMPOSIUM

“The word “symposium” comes from the Greek word “symposion” which, in turn, derives from the Greek verb “sympeninein” which means to drink together. The Merriam Webster dictionary defines symposium as “a convivial party with music and conversation” or “a social gathering at which there is free interchange of ideas.” While the music may be in short supply, I trust that all of you – and especially those of you for whom this is your first time at a meeting like this – find this symposium both intellectually stimulating and socially rewarding. So, again, welcome to the Robert Mittelstaedt Doctoral Symposium.”

- Robert Mittelstaedt

Dr. Robert Mittelstaedt retired on August 31, 2002, after 29 years of contributions to the University of Nebraska–Lincoln, College of Business Administration, Marketing Department and our graduate program.

Doctoral students share a common link to Bob. He was more than a fine educator, scholar, and academic citizen. He was also their mentor, friend, counselor, and supporter. He motivated them with his insights, kindness, and countless stories. He stimulated their ideas, made them smile, and warmed their spirits. In addition, Bob and Venita opened their home and hearts to many doctoral students and gave them many forms of moral support. Bob dedicated his career to doctoral education and has served as a role model to both doctoral students and junior faculty.

Bob also introduced macromarketing theory and issues to doctoral students and inspired them, for over 40 years. He has been more than a fine educator and scholar. His insights, seminars, and dedication to the Journal of Macromarketing and Macromarketing Conferences motivated their investigations of important issues in the field, presentations at the Conferences, and publications in JMM.

Despite being retired, Bob was lured back to the department for the 2004 and 2005 fall semesters to teach doctoral seminars.

At the time of Bob’s retirement, the faculty in the Department of Marketing decided to rename the Nebraska Doctoral Symposium to the Robert Mittelstaedt Doctoral Symposium in honor of Bob’s accomplishments at the University of Nebraska–Lincoln.
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24TH ANNUAL ROBERT MITTELSTAEDT DOCTORAL SYMPOSIUM
APRIL 2 – 4, 2015

THURSDAY, APRIL 2 – AFTERNON

Guests check in at the Courtyard by Marriott Lincoln Downtown, 808 R Street, (402) 904-4800

THURSDAY, APRIL 2 – EVENING (DRESS CASUALLY)

7:00 - 10:00 Welcome Reception and Cocktail Party
Van Brunt Visitors Center, 313 North 13th Street
Finger-foods will be served

FRIDAY, APRIL 3 – MORNING (DRESS PROFESSIONALLY)
LOCATION: SCARLET BALLROOM

Breakfast available for guests staying at the Courtyard

7:45 – 8:00 Welcome
Dr. Jim Gentry, Mittelstaedt Doctoral Symposium Coordinator
Dean Donde Plowman, James Jr. and Susan Stuart Endowed Dean, College of Business Administration
Dr. Robert Mittelstaedt, Nathan J. Gold Distinguished Professorship in Marketing, Emeritus

8:00 – 8:30 Antecedents and Consequences of Cost Mindfulness: Implications for Sales Team Morale
Jenifer Skiba, University of Nebraska–Lincoln

8:30 – 8:40 Discussant: Saeed Tajdini, University of Texas at El Paso

8:40 – 8:50 General Discussion

8:50 – 9:00 Break

9:00 – 9:30 I Age, I Hope: The Effect of Time Horizon and Proximal Distance
Samer Sarofim, University of Kansas

9:30 – 9:40 Discussant: Arvind Agrawal, University of Nebraska–Lincoln
9:40 – 9:50  General Discussion

9:50 – 10:00  Break

10:00 – 10:30  **The Slow Food Movement and the Politics of Neoliberalism**
Ankita Kumar, University of Wisconsin–Madison

10:30 – 10:40  Discussant: Lidan Xu, University of Illinois at Urbana–Champaign

10:40 – 10:50  General Discussion

10:50 – 11:00  Break

11:00 – 11:30  **Fighting to Fit in: An Examination of the Relationship between Destigmatization Strategies and Consumer Health**
Cassandra Davis, University of Arkansas

11:30 – 11:40  Discussant: Edna Ndichu, University of Wyoming

11:40 – 11:50  General Discussion

11:50 – 1:00  Lunch in the Bistro area, Courtyard

**FRIDAY, APRIL 3 – AFTERNOON**
**LOCATION: SCARLET BALLROOM**

1:00 – 1:30  **You Can’t Make Me, But You Should Try: Benefits of Controlling Behavior by Brands**
Lura Forcum, Indiana University

1:30 – 1:40  Discussant: Bowen Ruan, University of Wisconsin–Madison

1:40 – 1:50  General Discussion

1:50 – 2:00  Break

2:00 – 2:30  **Aesthetics-Induced Ethics: Can Aesthetic Environments Foster Ethical Behaviors?**
Clark Cao, University of Arizona

2:30 – 2:40  Discussant: Marc Dotson, The Ohio State University

2:40 – 2:50  General Discussion

2:50 – 3:00  Break
3:00 – 3:30  Creativity and Innovation in Internationally Distributed New Product Development Teams  
Felix Flores, University of Texas at El Paso

3:30 – 3:40  Discussant: Tae Woo Kim, Indiana University

3:40 – 3:50  General Discussion

3:50 – 4:00  Break

4:00 – 4:30  Demand Models with Random Partitions  
Adam Smith, The Ohio State University

4:30 – 4:40  Discussant: Bingqing Yin, University of Kansas

4:40 – 4:50  General Discussion

FRIDAY, APRIL 3 – EVENING (DRESS CASUALLY)  
LOCATION: SCARLET BALLROOM

6:30 – 9:00   Evening Reception and Banquet  
6:30 - Social  
7:00 - Banquet

9:00 – late   On your own

SATURDAY, APRIL 4 – MORNING (DRESS PROFESSIONALLY)  
LOCATION: SCARLET BALLROOM

Breakfast available for guests staying at the Courtyard

8:00 – 8:30  Does Helping Help You Feel Good? The Answer Depends on Cultural Orientation  
Hyewon Cho, University of Illinois at Urbana–Champaign

8:30 – 8:40  Discussant: Brandon Gustafson, Washington State University

8:40 – 8:50  General Discussion

8:50 – 9:00  Break

9:00 – 9:30  Politicized Purchasing: The Impact of Corporate Political Activity on Consumer Attitudes and Purchase Intentions  
T.J. Weber, Washington State University
9:30 – 9:40  Discussant: Alireza Golmohammadi, University of Arkansas
9:40 – 9:50  General Discussion
9:50 – 10:00 Break
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            Travis Simkins, University of Wyoming
10:30 – 10:40 Discussant: Pui Ying (Yoshi) Tong, West Virginia University
10:40 – 10:50 General Discussion
10:50 – 11:00 Break
11:00 – 11:30 **Quality-Efficiency Trade-offs in Service Organizations: A SFA-Based Approach with Application in Health Care Services**
            Fengxia Zhu, University of Missouri–Columbia
11:30 – 11:40 Discussant: Gabriel Gazzolli, Oklahoma State University
11:45 – 11:50 General Discussion
11:50 – 12:00 Break

SATURDAY, APRIL 4 – AFTERNOON
LOCATION: SCARLET BALLROOM

12:00 – 12:30 **Employee Brand Attachment: A Job Demands-Resources Theory Perspective**
            Lee Allison, Oklahoma State University
12:30 – 12:40 Discussant: Justin Lawrence, University of Missouri–Columbia
12:40 – 12:50 General Discussion
12:50 – 1:00 Closing
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APRIL 2 – 4, 2015

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ANTECEDENTS AND CONSEQUENCES OF COST MINDFULNESS: IMPLICATIONS FOR SALES TEAM MORALE

Jenifer Skiba, Amit Saini, Scott B. Friend, University of Nebraska–Lincoln

INTRODUCTION

Profitability remains a key corporate goal for business, one that can be achieved by increasing revenues and controlling expenses. Both sales and marketing functions play an integral role towards this, by enhancing revenue through increased customer satisfaction, loyalty, and relationship management (e.g., Grewal and Sharma 1991; Reinartz, Krafft, and Hoyer 2004; Vogel, Evanschitzky, and Ramaseshan 2008; Yim, Anderson, and Swaminathan 2004). However, both sales and marketing functions are under pressure to justify expenditures and show their contribution to firm performance (e.g., Marshall et al. 2012; Rust et al. 2004). For marketing, this enhanced pressure can be partly attributed to a historical lack of accountability, which has led to a decrease in the marketing function’s credibility (Rust et al. 2004).

The marketing literature has primarily focused on revenue growth (e.g., Gupta and Zeithaml 2006; Homburg, Droll, and Totzek 2008; Vogel, Evanschitzky, and Ramaseshan 2008) and profitability (e.g., Morgan, Slotegraaf, and Vorhies 2009; Szymanski, Bharadwaj, and Varadarajan 1993), and focused relatively less on expenses and cost reduction (e.g., Rust et al. 2004; Rust, Moorman, and Dickson 2002). However, as firms continue to come under increased pressure to meet bottom line targets (e.g., Mizik and Jacobson 2007), attention to cost and cost reduction strategies has become an increasingly important issue for managers. The increased attention toward cost impacts managerial decision making by narrowing the focus of managerial energy and effort (Ocasio 1997), which may in turn impact the sales team, and ultimately the firm. Therefore, it is important that we give research attention to cost management issues, such as managerial attention to cost and related cost behaviors.

As such, we utilize the attention based view of the firm (Ocasio 1997) and the concept of mindfulness (e.g., Langer 1989), to conceptualize cost mindfulness as the extent to which a manager (a) gives attention to cost, (b) conducts cost information processing, and (c) actively engages in cost control. The three components of cost mindfulness encompass both cognitive and behavioral aspects, and refer to the time and effort managers spend on actively reviewing, monitoring, and manipulating cost information within the decision making process, and the purposeful involvement in cost control strategies. The cost mindfulness of managers can impact the firm by focusing the manager on a narrow set of issues or potential actions (Ocasio 1997) related to costs, which could lead to different signals being sent to the team (Spence 1973). This could ultimately impact the climate of the team (Deshpande and Webster 1989) through different effects on the expectations of the team members.

We conceptualize the notion of cost mindfulness in the context of B2B sales managers. The sales management context is replete with many day-to-day decisions that require attention to cost and cost related issues and therefore becomes an important area in which to study cost mindfulness. Following a literature review and exploratory interviews with sales managers, we identify two primary types of costs that are of concern to sales managers: operating costs (the day-to-day costs of managing the sales team) and developmental costs (the longer-term costs related to the development of the sales team). Therefore, we break cost mindfulness down into two categories: operational cost mindfulness (CMO) and developmental cost mindfulness (CMD).

We study the impact of CMO and CMD on the level of the sales team’s extra role behavior. We also investigate the impact of extra role behavior on sales team performance. These two outcomes are important because they have the ability to impact firm performance (MacKenzie, Podsakoff, and Ahearne 1998). Further, we study how salesperson cost sensitivity, managerial long-term orientation, and the use of
behavior controls impact the relationship between cost mindfulness and extra role behavior. Finally, we investigate potential antecedents to managerial cost mindfulness. Hence, this paper addresses the following research questions: What factors impact the level of cost mindfulness of sales managers? What are the differential effects of operational versus developmental cost mindfulness of sales managers? How does cost mindfulness of sales managers affect sales team extra role behavior? What factors influence (moderate) the effect of cost mindfulness on the extra role behavior?

We analyze survey data from 179 sales managers in the business to business context to test our hypotheses. Data is analyzed using a series of multiple regression equations. This research contributes to the literature in several ways. First, we conceptualize and define the construct of cost mindfulness. This construct allows us to gain insights into sales team management by highlighting how cost mindfulness impacts sales team extra role behavior. We also provide insight into several conditions that can impact the role of cost mindfulness on this outcome. Our results help sales managers by providing insight into how to effectively manage a sales force while maintaining a focus on costs in order to meet budgetary or other cost targets. Our results also provide insight regarding the different types of costs related to managing the sales team and how each type of cost mindfulness can have an impact on sales team outcomes.

The remainder of this paper is organized as follows: First, we briefly review the relevant literature on both cost management and the attention based view of the firm in order to provide a background for this research. Second, we develop a set of hypotheses linking cost mindfulness to extra role behavior. We also explore both potential antecedents to cost mindfulness and potential moderating effects of the cost mindfulness to extra role behavior relationship. Third, we discuss the research methodology including both scale development and hypotheses testing. Finally, we provide a discussion of the results and implications for both theory and practice.

THEORETICAL BACKGROUND

In this section, we review the literature on cost management from both the accounting and marketing literature, as well as literature on attention and mindfulness. We begin with a discussion on the primary focus within the cost management literature. Next we discuss the concept of attention, and introduce the attention based view of the firm (ABV) (Ocasio 1997). The section ends with an overview of the literature on mindfulness.

Cost Management

The extant literature on cost management has focused primarily on the issues of examining cost control, cost categorization, marketing cost analysis, and cost behavior. The idea of cost control was first introduced in the accounting literature and was defined as a function of the management’s role as a way of ensuring that factors such as labor, materials, machines, and money were managed efficiently and effectively (Crum 1953). Additional literature in accounting has noted that individuals should be evaluated only on the basis of factors that are under their control (Baiman and Noel 1985), thereby categorizing costs as controllable or uncontrollable. Dunne and Wolk (1977) also discuss the categorization of costs, separating costs by various behaviors, such as the distinction between fixed and variable costs.

From the marketing perspective, the cost management literature introduced the concept of marketing cost analysis as a tool used for establishing marketing strategy and planning the actions taken by the marketing function (Mellman 1963). Dunne and Wolk (1977) discuss the use of marketing cost analysis as a tool to assist with segment analysis and the allocation of costs. In terms of cost behavior, Mizik and Jacobson (2007) discuss myopic management, defining it as an overemphasis on strategic options (or marketing actions) that bring immediate results to the detriment of those actions that generate long-term profits. The authors find that oftentimes managers have incentives or pressures to inflate current earnings and will do so through a cost reduction strategy. In addition, Dierynck, Landsman, and Renders (2012) look
at how management incentives to meet a certain target affect cost behavior and decisions related to the allocation of resources or the accumulation of slack resources.

Historically, research in marketing has examined costs in the context of studying the antecedents of profits and profitability. For instance, research has been conducted on the profit impact of market strategies (PIMS) (Hagerty, Carman, and Russell 1988), on the impact of customer satisfaction on profitability (e.g., Anderson, Fornell, and Lehmann 1994; Szymanski, Bharadwaj, and Varadarajan 1993), and on the market share-profitability link (Szymanski, Bharadwaj, and Varadarajan 1993). As an exception to this antecedent focus, (Rust et al. 2004) discusses marketing productivity in terms of marketing actions and related expenditures. The authors provide a framework that ties these actions and expenditures to the effect they have on customers, and ultimately shareholder value. Rust, Moorman, and Dickson (2002) discuss revenue expansion and cost reduction strategies in relation to quality initiatives. The authors find that firms adopting a revenue expansion strategy (or emphasis) tend to perform better than firms adopting an expense reduction strategy or firms emphasizing both revenue expansion and expense reduction simultaneously.

Our review of the extant literature on cost management reveals that scholars have not looked at the outcomes of managerial attention to and engagement with cost related issues. Specifically, there is a lack of research on the impact that such a focus on cost can have within an organization. Given the pressure to justify expenses and show contribution to firm performance, this is an important area for further study. In order to examine the managerial attention to and engagement with costs, we turn to the literature on the ABV and mindfulness to better understand how managerial attention to costs can impact an organization. The work on mindfulness (Langer 1989), in particular, guides our conceptualization of cost mindfulness, filling the gap in the cost management and marketing literature.

**Attention and Mindfulness**

Attention is an important concept in the study of organizational behavior, and has been used to study a wide range of issues including CEO succession (Thornton and Ocasio 1999), strategic change (Cho and Hambrick 2006; Nadkarni and Barr 2008), firm growth (Greve 2008), and financial performance (Bouquet, Morrison, and Birkinshaw 2008). Attention can both facilitate and hinder firm action. It facilitates firm action by enhancing the accuracy and speed with which a firm processes information, and increasing the perception and action of those activities to which the firm attends (Ocasio 1997). It can hinder firm action when focus and attention become rigid and do not allow for new information processes to take place.

The ABV offers a theory of attention that focuses on organizational adaptation and action (Ocasio 2011). The theory was developed as a means of explaining how a firm regulates the distribution of attention of its organizational decision-makers. The distribution of attention is further tied to the way a firm makes decisions that ultimately lead to firm behavior. The base of this argument lies on three interrelated levels of attention: focus of attention; situated attention; and structural distribution of attention. The first level, focus of attention, states that the actions taken by decision makers rely upon the issues and answers that they focus on (Ocasio 1997). The second level, situated attention, states that what decision makers do, and what they focus their attention on, is dependent on the context or situation in which they work (Ocasio 1997). The final level, structural distribution of attention, builds on the previous two levels by stating that the situation decision makers find themselves in relates to how organizational rules, resources, and social relationships control the distribution of issues and answers through communications and other procedures (Ocasio 1997). The rules and regulations within an organization are part of the organizational culture and help to determine where attention is placed.

The first level, focus of attention, forms the basis for decision maker’s actions, allowing the decision maker to focus energy, effort, and mindfulness on a limited set of elements. The focus of attention
facilitates perception and actions toward those elements being attended to. At the same time, it inhibits the perceptions and action toward those actions that are not being focused on (Ocasio 1997). In so doing, a focus of attention allows the decision maker to take action and move in the direction in which the focus of attention is pointing.

One of the things that focused attention helps decision makers do is to focus the individual’s mindfulness on a set of issues and actions that need attention. Mindfulness has been described as enhanced attention to, or an awareness of, the present or current experience (Brown and Ryan 2003). It has been defined as a state of mind that is alert and aware (Langer 1989). As a state, mindfulness is not something that some individuals possess and others lack (Dane 2011). Instead, individuals vary on their level of mindfulness. Mindfulness is also expressed through a sensitivity to context, and allowing rules and routines to govern behavior instead of predetermining it (Langer 2000). Mindfulness is conveyed through actively processing information, creating new categorizations or distinctions, and noticing or being aware of multiple perspectives (Langer 1989). As such, it helps individuals have the ability to make decisions and provide alternative options around those decisions (Langer 1997). We build on this notion of mindfulness to conceptualize cost mindfulness. In the next section, we define cost mindfulness in the context of business-to-business sales management. We then offer a set of hypotheses relating to both the antecedents of cost mindfulness and sales team outcomes.

**Conceptual Development**

The business-to-business sales management context is an important area to study the effects of cost mindfulness because sales managers make daily decisions related to the management of their sales force that require attention to various kinds of costs. Cost mindfulness (CM), in this context, is conceptualized as the extent to which a manager (a) gives attention to cost, (b) conducts cost information processing, and (c) actively engages in cost control. Attention to cost refers to the amount of time and cognitive effort a manager devotes to costs. Cost information processing is the extent to which a manager actively reviews, monitors, and manipulates cost information to be used in decision making processes. Cost control engagement refers to the extent to which a manager is actively involved in cost control strategies.

Building on the cost management literature that elucidates the categorization of costs (e.g., Dunne and Wolk 1977), we identify the types of costs involved in sales force management. Based on review of the literature, as well as interviews with sales managers, we identify two primary categories of costs that are relevant to sales management: operational costs and developmental costs. As such, we conceptualize cost mindfulness for these two categories of costs. Operational cost mindfulness refers to the day-to-day costs associated with running an effective sales team, and includes costs such as travel, entertainment, and other daily operating costs such as supplies and overhead. Developmental cost mindfulness refers to the longer term costs associated with developing the sales team, including compensation, benefits / commissions, and hiring and training costs. In line with signaling theory (Kuhn 2009; Spence 1973), the sales team is likely to pick up cues (or signals) from the manager’s cost mindfulness that would impact individual and team motivation. Due to the nature of these categories of costs, we propose that the two types of cost mindfulness will have differential impacts on the sales team’s morale under varying conditions.

We propose an antecedent and consequence model of cost mindfulness. Specifically, we propose that both operational and developmental cost mindfulness will be influenced by resources and organizational culture. We identify resources as both temporal resources and managerial cost incentives, and culture as the organizational cost culture. As a consequence, we argue that a sales manager’s cost mindfulness will impact the sales team’s extra role behavior. However, we posit that the sales team’s cost sensitivity, the use of behavior controls, and a managerial long-term orientation may moderate this relationship between cost mindfulness and extra role behavior. Finally, we investigate the relationship between extra role behavior and sales team performance. Our conceptual model is illustrated in Figure 1.
**HYPOTHESES**

**Antecedents**
Managerial attention helps to improve the accuracy and speed with which information is processed within the firm (Ocasio 1997). As a form of enhanced attention (Brown and Ryan 2003), mindfulness also helps managers to make decisions and take action (Langer 1997). However, managers are limited by bounded rationality which makes it likely that they are unable to process all cues received, and are more likely to focus on a subset of those cues (Bahadir, DeKinder, and Kohli 2015). According to the ABV, the cues that direct managerial attention are a function of the context or situation in which the managers work. This context or situation is based on organizational factors such as rules, resources, and social relationships (Ocasio 1997). When thinking about cost mindfulness of sales managers, there are two primary categories of organizational factors that will most impact the level of a sales manager’s cost mindfulness: resources and organizational culture. Based on field interviews with sales managers and a review of the related literature (e.g., Dierynck, Landsman, and Renders 2012), we identify two types of resources: managerial cost incentives and temporal resources. We also identify organizational cost culture as a potential factor that will impact cost mindfulness.

**Resources**
The first resource, managerial cost incentives, is defined as the extent to which incentives are provided to managers for meeting budgetary targets related to costs. When a manager is provided with this type of incentive, it will likely increase the manager’s desire to focus attention on costs by providing a situation that is conducive to a cost focus (Ocasio 1997). In turn, incentives can impact a manager’s cost behavior (e.g., Dierynck, Landsman, and Renders 2012) by increasing the use of cost metrics and other cost information in the decision making process and allowing the manager to see progress toward the offered incentives. Managers with cost focused incentives are also likely to focus on comparing cost information to targets and utilizing cost control strategies in order to meet incentives (Jackson Jr, Schlacter, and Wolfe 1995). Such goal-driven action is likely to occur for both operational and developmental costs. As such, the overall level of a sales manager’s cost mindfulness will increase as the level of managerial cost incentives increases. Therefore, we posit:
Managerial cost incentives are positively related to both (a) operational cost mindfulness, and (b) developmental cost mindfulness.

Temporal resources are arguably the second type of resources that impact cost mindfulness. We conceptualize temporal resources as a measure of the efficiency with which the sales team is completing its tasks and responsibilities. A higher level of temporal resources indicates that there is excess time available, where the team is either not performing as efficiently as possible with regard to its normal tasks and responsibilities, or is not solely focused on revenue generating activities. When temporal resources are available, a manager may be concerned about salesperson turnover due to lack of motivation and the appearance of not enough work for the sales team.

According to the conservation of resources theory (Hobfoll and Freedy 1993), individuals seek to protect and build resources they deem to be of value, especially when the resources are low, at risk, or circumstances signal their potential loss. As such, a manager that is aware of excess temporal resources within the sales team is likely to conserve resources by diverting attention from costs in order to focus attention on increasing the sales team’s time utilization and ensuring the team is focused on its tasks and increasing its efficiencies. This will likely lower the manager’s cost mindfulness, both in terms of operational and developmental costs, as the manager will be more focused on increasing and optimizing the revenue potential of the sales team and less focused on costs and cost control. As such, we posit:

H2: Temporal resources are negatively related to both (a) operational cost mindfulness, and (b) developmental cost mindfulness.

Organizational Culture

Organizational culture has been defined as the shared set of values and beliefs among individuals in an organization (Rouziès et al. 2005) that provide norms for member behavior within the organization (Deshpande and Webster 1989). We define organizational cost culture as the extent to which the organization shares a set of beliefs and norms regarding cost and cost control. An organization’s culture can play a significant role in where a manager focuses attention, as well as on the actions a manager takes through the rules and social relationships that are inherent in the culture (Ocasio 1997). By providing cues to managers (Bahadir, DeKinder, and Kohli 2015; Ocasio 1997), the organizational culture helps to direct a manager’s attention toward what the organization deems to be important. As such, a firm with a strong organizational cost culture will indicate to managers that costs and cost management are a priority. In addition, a strong cost culture creates a shared set of values regarding costs, and provides norms of behavior that will likely enhance attention to cost, utilizing cost information, and controlling costs. As managers are exposed to this cost culture, and become aware of the priority that is placed on costs, this will increase a manager’s cost mindfulness on both operational and developmental costs. Therefore we propose:

H3: Organizational cost culture is positively related to both (a) operational cost mindfulness, and (b) developmental cost mindfulness.

Outcomes

We examine two sales team level outcomes in this study. The first is extra role behavior, which refers to the degree to which salespeople go the extra mile when servicing customers (Netemeyer, Maxham, and Pullig 2005). The second is sales team performance, which refers to the extent to which a sales team’s sales volume, market share, profitability, customer satisfaction, number of orders taken, and sales of high margin products, meet or exceed predetermined objectives. These outcome variables were chosen for two reasons. First, salesperson performance (which broadly encompasses both sales volume and dollars, and extra-role performance) is an important outcome for sales managers as it potentially has a significant effect on firm success (MacKenzie, Podsakoff, and Ahearne 1998). Second, morale and performance were highlighted frequently in field interviews as being potentially impacted by a manager’s cost mindfulness.
We utilize signaling theory (Kuhn 2009; Spence 1973) to understand these sales team level outcomes. Signaling theory posits that decision makers will use information they receive (signals) to make inferences about unknown information or decisions (Spence 1973). The reaction of the signal’s receiver depends on both the signaler’s tangible actions and the effects of those actions, as well as the interpretation of those actions by the receiver (Heil and Langvardt 1994). Research has noted that different actions taken by organizations, such as compensation levels, can act as a signal of an organization’s culture (Kuhn 2009). At the same time, we suggest that a manager’s actions can influence the climate, a related but different concept from culture¹.

We argue that a sales manager’s cost mindfulness acts as a signal to the sales team of what management deems to be a priority. This in turn can impact the sales team’s climate through the sales team interpretation of the actions taken by the manager. Climate has been shown to have an impact on salesforce morale (Churchill, Ford, and Walker 1976). This change in climate will influence the focus, or attention, of the sales team, which will subsequently impact the decisions they make, as well as the actions they take. As such, the cost mindfulness of sales managers can impact sales team outcomes through the impact on the sales team climate.

**Impact of Cost Mindfulness on Extra Role Behavior**

One of the aspects of a manager’s role is to ensure that factors such as labors, materials, machines, and money are managed efficiently and effectively (Crum 1953). With this function comes a basic need to be aware of how costs are impacting the efficiency and effectiveness of these factors, and the ability to control or manage such costs. As such, cost mindfulness can have a positive impact on many areas of an organization including bottom line profits, and how individual departments are managed. We argue that cost mindfulness of sales managers can also have a positive impact on a sales team’s extra role behavior.

A manager that is mindful of developmental costs, is focused on the extent to which the firm is investing in selection, training and development, and compensation and incentive-based pay programs (e.g., Kwon and Rupp 2013). Research has shown that development costs are an effective way to motivate salespeople (Shank 2014). A developmentally cost mindful sales manager is likely aware of the impact of these costs on motivation and seeks to utilize these costs to enhance salesperson morale, and increase the accuracy of the sales team’s expectancy² and instrumentality³. This helps to increase sales team satisfaction and reduce stress from concern over compensation and training, which will enhance the performance of extra role behavior (Johnston and Marshall 2013; MacKenzie, Podsakoff, and Ahearne 1998; Netemeyer, Maxham, and Pullig 2005). Therefore, it is expected that developmental cost mindfulness will positively impact extra role behavior.

We argue that operational cost mindfulness will also positively impact a sales team’s extra role behavior. A manager focused on daily operating costs seeks to ensure the sales team is efficient and effective in the daily activities that they perform. As such, the manager is likely to put processes in place to help streamline daily activities and allow the team to be as effective as possible with each sales call, presentation, or sales trip, while seeking to manage costs efficiently. This indicates to the sales team that the manager is constantly aware of the company’s bottom line, and is being a good steward of company funds. This is likely to increase sales team morale and free them up from daily mental accounting to focus

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¹ According to Deshpande and Webster Jr (1989), climate refers the team’s perceptions that the organization is fulfilling their expectations. It is the operationalization of the culture (Slater and Narver 1995).

² Expectancy refers to the salesperson’s perceptions of the link between job effort and performance.

³ Instrumentality refers to the salesperson’s perceptions of the link between job performance and various rewards. (Johnston and Marshall 2013)
on areas such as increasing revenue and satisfying customers. In turn, this will help to increase extra role behavior. Hence, we posit:

**H4a:** Developmental cost mindfulness will be positively related to extra role behavior.

**H4b:** Operational cost mindfulness will be positively related to extra role behavior.

*Impact of Extra Role Behavior on Sales Team Performance*

Extra role behavior have the ability to positively impact sales team performance through two primary means. First, a sales team that is actively performing extra role behavior has been shown to increase customer purchase intent (Netemeyer, Maxham, and Pullig 2005). This can help to increase sales team performance by increasing customer satisfaction, sales volume, and number of orders taken. Second, activities such as extra role behavior have been shown to increase salesperson in-role behavior performance (i.e., how the salesperson meets their job responsibilities) which in turn increases outcome performance (Piercy et al. 2006). As such, we posit:

**H5:** Extra role behavior will be positively related to sales team performance.

*Moderators*

We propose three moderators that likely impact the relationship between cost mindfulness and the sales team’s extra role behavior: salesperson cost sensitivity, managerial long-term orientation, and the utilization of behavior controls. The first moderator, salesperson cost sensitivity, is defined as the extent to which salespeople feel burdened by cost pressures. We propose that cost sensitivity will have a differential impact on the cost mindfulness – extra role behavior relationship depending on which category of cost mindfulness (operational or developmental) is at play.

A manager with developmental cost mindfulness is focused on strategic costs that have a material impact on the salesperson’s life outside of the organization. A salesperson or team that is high in cost sensitivity will be overly sensitive to this category of cost mindfulness and will likely not be kind to any material changes that would affect their personal lives. As such, a cost sensitive sales team is likely to be wary of the manager’s attempts to enhance the sales team morale through impacting their expectancy and instrumentality. This will lessen the impact that the sales manager’s actions have on sales team satisfaction. In turn, this will weaken the positive impact that developmental cost mindfulness has on extra role behavior.

However, a manager with operational cost mindfulness is focused on the daily operating costs that impact the salesperson’s life inside the organization. A salesperson or team that is high in cost sensitivity is burdened by cost pressures, and will likely seek ways to help improve the efficiency and effectiveness of the team in order to alleviate some of the felt pressure. As such, a sales team with high cost sensitivity is likely to become more receptive to the manager’s operational cost mindfulness and work with the manager in order to bring about system-wide operational improvement. This will strengthen the positive relationship between operational cost mindfulness and extra role behavior. Therefore, we propose:

**H6a:** The greater the salesperson cost sensitivity, the weaker the positive relationship between developmental cost mindfulness and extra role behavior.

**H6b:** The greater the salesperson cost sensitivity, the stronger the positive relationship between operational cost mindfulness and extra role behavior.

The second moderator, managerial long-term orientation, is defined as the extent to which the sales manager’s focus on managing the sales force is of a long-term nature, where long-term refers to periods of more than one fiscal year (e.g., Rouziès et al. 2005). A manager with a long-term orientation is more aware
of or sensitive to the impact of developmental costs on the motivation of the sales team. Therefore, the manager will place more value on the cost mindfulness and continue to seek ways to maintain or enhance salesperson morale. This will send signals to the sales team that indicate the manager is focused on developmental costs for the long haul. As such, the team is likely to be more receptive to the manager’s actions, thereby enhancing satisfaction and further reducing stress. Overall, this will help strengthen the positive impact of developmental cost mindfulness on extra role behavior.

A quest for operational effectiveness is often referred to as not a good long-term strategy on which to build a competitive advantage (Porter 1996). When a long-term orientation is coupled with operational cost mindfulness, it signals to the sales team that the manager may be more focused on pursuing operational effectiveness than on building revenue. This is likely to be disheartening to the sales team given the enduring and long-term nature of the manager’s approach, and thus will serve to lower the impact of operational cost mindfulness on sales team’s morale. In addition, it is likely to shift the team focus away from increasing revenue and satisfying customers toward a more cost focused mindset. In turn, this will weaken the positive impact of operational cost mindfulness on extra role behavior. Hence, we propose:

**H7a:** The greater the managerial long-term orientation, the stronger the positive relationship between developmental cost mindfulness and extra role behavior.

**H7b:** The greater the managerial long-term orientation, the weaker the positive relationship between operational cost mindfulness and extra role behavior.

The final moderator, behavior control, is a control mechanism that is based on salesperson activities and inputs (Oliver and Anderson 1994). It is comprised of both evaluation and compensation relating to the quality and quantity of the activities of the salespeople. A manager with developmental cost mindfulness is focused on enhancing the morale of the sales team by increasing the accuracy of the team’s expectancy and instrumentality, as well as developing the sales team’s ability to perform their duties through training and development activities. Behavior controls work in conjunction with these goals by providing a means for salespeople to be evaluated and compensated on both the quantity and quality of their sales inputs and activities. This dictates how the team will be compensated and incentivized for the work they do, thereby increasing expectancy and instrumentality. As the behavior controls are tied to quality of activities, it also provides an increased motive to ensure the sales team is developing their abilities. At the same time, behavior controls provide a reasonable base for compensation and reward by basing it on the sales team’s activities instead of on the outcome of those activities. Taken together, this will help to increase sales team morale. Therefore, behavior control will strengthen the positive relationship between developmental cost mindfulness and extra role behavior.

However, combining behavior controls with operational cost mindfulness could lead to different outcomes. In this case, although operational cost mindfulness has a positive impact on extra role behavior by allowing the team to focus on making sales and keeping the customer happy, utilizing behavior controls becomes a case of too much of a focus on operational activities. Both operational cost mindfulness and behavior controls are related to the daily operations and activities of the sales team. As such, when combined, it forces the sales team to focus more on the activities and costs; taking attention away from sales and customers. In addition, the sales team is likely to become wary, to the point of questioning the manager’s operational cost mindfulness. The intent behind the mindfulness becomes suspect. This creates a stifling effect that can lead to feelings of frustration, and ultimately to lower job satisfaction and morale. Overall, this will serve to weaken the positive impact of operational cost mindfulness on extra role behavior. Therefore, we posit:

**H8a:** The greater the use of behavior controls, the stronger the positive relationship between developmental cost mindfulness and extra role behavior.
**H8b:** The greater use of behavior controls, the weaker the positive relationship between operational cost mindfulness and extra role behavior.

**RESEARCH METHODOLOGY**

**Measurement Development**

The scales used to measure the constructs in the proposed model were adopted from existing measures whenever possible. The remaining constructs were developed following established construct development standards (e.g., Churchill 1979; Rossiter 2002). This process began with identifying the domain of the construct, followed by detailed definitions of each of the constructs. Next, existing literature and qualitative depth interviews with both marketing and sales managers were used to create items that capture the construct definitions. Each set of items was then reviewed by four academics familiar with both marketing and survey methodology, as well as by sales managers.

Following the procedures set forth by Churchill (1979), items were adjusted throughout all stages of the testing process. Feedback from the pre-tests showed that some questions were unclear or used vocabulary that was unfamiliar to respondents. These items were adjusted. Other feedback noted that the questionnaire took longer than initially estimated. However, completion was still within a reasonable time frame and therefore all constructs were retained. No issues regarding the physical layout of the questionnaire were identified. The final questionnaire used for data collection was designed for online data collection and was 27 screens long. This included a one screen introduction, four transition screens used between key constructs, and a final thank you screen. The average completion time during the pretests was approximately 26 minutes.

We utilized both procedural and statistical remedies in order to reduce common method variance (Podsakoff et al. 2003). First, different question formats were used within the survey to provide variety in how the constructs were represented to the respondents. Question formats were alternated throughout the questionnaire, whenever possible. We also introduced physical distance between the important variables in the model through their placement in the questionnaire (Podsakoff et al. 2003). We accomplished this through the use of transition screens. Second, respondents were informed that there were no right or wrong answers to the questions, and were assured of anonymity. This step is conducted in order to reduce respondent apprehension and socially desirable responding (Podsakoff et al. 2003). Finally, we utilized Harman’s one-factor test, which has been widely used as a way to address common method variance (Podsakoff et al. 2003). Ten factors had an eigenvalue greater than one. These ten factors account for 72.29% of the variance, with the first factor accounting for 38.24%.

All constructs, unless stated otherwise, are measured with 7-point Likert type scales ranging from ‘strongly disagree’ to ‘strongly agree’ and are considered reflective. Definitions for each construct are provided next.

**Focal Constructs**

*Cost mindfulness (CM)* is conceptualized as the extent to which a manager (a) gives attention to cost, (b) processes cost information, and (c) actively engages in cost control. *Attention to cost (ATT)* is defined as the amount of time a sales manager spends on cognitive effort toward costs. *Cost information processing (CIP)* is the extent to which a sales manager actively reviews, monitors, and manipulates cost information to be used in decision making processes. *Cost control engagement (CCE)* refers to the extent to which a sales manager is actively involved in cost control strategies. ATT is captured through four items, CIP through five items, and CCE through five items.

In the context of the hypothesized model, the measurement items and survey instrument reflect the context of sales management. Within this context, we conceptualize cost mindfulness for two categories of
costs: operational costs and developmental costs. Operational cost mindfulness (CMO) refers to the day-to-day costs associated with running an effective sales team, and includes costs such as travel, entertainment, and other daily operating costs such as supplies and overhead. Developmental cost mindfulness (CMD) refers to the longer term costs associated with developing the sales team, and includes costs such as salesperson compensation, benefits / commissions, and hiring and training costs.

Each of the two cost mindfulness constructs (operational and developmental) are developed as formative in nature, consisting of the three components of cost mindfulness. In order to capture the differences between the two cost mindfulness constructs, prior to each question, respondents were given the definition of salesperson investment costs, along with examples of the types of costs involved. They were then asked to answer all ATT, CIP, and CCE questions for that set of costs. Respondents were then given the definition of operating costs and asked to answer the same items while thinking about this second set of costs.

Outcome Variables
Extra role behavior (ERB) is defined as the degree to which a salesperson goes the extra mile when servicing customers (Netemeyer, Maxham, and Pullig 2005). ERB is captured by a five items adapted from Netemeyer, Maxham, and Pullig (2005). Sales team performance (STPERF) is defined in terms of how the sales team’s sales volume, market share, profitability, and customer satisfaction meet or exceed objectives. It is a formative scale, captured with six items adapted from Piercy, Cravens, and Morgan (1999).

Antecedent Variables
Managerial incentives (MGRIN) is defined as the extent to which incentives are provided to managers for meeting budgetary targets related to costs. MGRIN is captured by four items. Organizational cost culture (OCC) is defined as the extent to which the organization shares a set of beliefs and norms regarding cost and cost control. It is captured by three items. Temporal resources (TEMPRSC) is a measure of the efficiency with which the sales team completes its tasks and responsibilities. TEMPRSC was captured through one item adapted from Nohria and Gulati (1996).

Moderating Variables
Cost sensitivity (CSENS) is defined as the extent to which salespeople feel burdened due to cost pressures. It is captured through four items. Managerial long-term orientation (LT) is the extent to which the sales manager’s focus on managing the sales force is of a short-term versus a long-term nature, where responses higher on the construct represent a longer-term orientation (e.g., Rouziès et al. 2005). LT is captured by four items. Behavior control (BEHCTL) is a control mechanism that is based on salesperson activities and inputs (Oliver and Anderson 1994). BEHCTL is captured through five items.

Control Variables
Firm age refers to the number of years the organization has been in existence. Firm age is captured by an open-ended question where respondents are asked to input the year the firm began. Firm age is then calculated as the difference between the current year and the year the firm began. Firm Size refers to the number of employees within the organization. Firm size is captured through a multiple choice question that asked the respondent to choose from multiple ranges of the number of employees in the firm. Industry refers to the classification of the products and services the organization offers. Industry is captured by a multiple choice question that asked respondents to choose an industry classification option among medical / pharmaceutical, transportation / logistics, technology / communications, financial services / consulting, consumer goods, or other. Perception of control refers to the extent to which managers believe they have control over the costs under their purview. Perception of control is captured with two items, one for each type of cost (salesperson investments and operating costs) utilizing a 7-point Likert type scale ranging from ‘strongly disagree’ to ‘strongly agree.’
Sampling Frame and Survey Procedures

The sampling frame for this study consisted of key respondents who were business-to-business sales managers that manage a sales team of at least two sales people in various organizations and industries across the United States. This across-industry sampling frame was chosen as an attempt to capture variance within a number of key constructs hypothesized in our model (e.g., MGRIN, OCC, TEMPRSC, BEHCTRL), as well as to increase the generalizability of the study. The business-to-business sales management context is an important area in which to study the effects of cost mindfulness because sales managers make many day-to-day decisions related to sales force management that require attention to all kinds of costs, and the way managers think about these costs could affect both managerial outcomes, as well as salesperson outcomes.

Respondents were recruited through a national online panel via Qualtrics Inc. This method of data collection has been found to be an effective means of collecting large samples from groups of respondents with specialized backgrounds, such as sales managers (e.g., Darrat, Amyx, and Bennett 2010; Lohse, Bellman, and Johnson 2000), and is commonly used to collect information in a sales context (Gonzalez et al. 2010; Jaramillo et al. 2009; Rutherford et al. 2011). Respondents were compensated by Qualtrics Inc. for survey participation.

A total of 968 respondents accessed the survey, which was closed shortly after 200 respondents completed the survey. Of the 203 respondents who completed the survey, 24 respondents were eliminated by the online panel management due to either incomplete data or completion times less than one-third of the average time. This resulted in 179 useable surveys, giving us a response rate of 18.5%. The sales managers responding had an average age of 42.87 years, average sales management experience of 8.95 years, and average company experience of 9.78 years. Approximately 55% of the respondents were male. Respondents were from various industries including: technology / communications (27%), consumer goods (26%), financial services / consulting (12%), medical / pharmaceutical (9%), and transportation / logistics (8%). Respondents were evenly distributed between selling purely goods (31%), purely services (31%), and selling equally goods and services (38%). Two additional questions related to the perception of control over the two types of costs helped judge the appropriateness of key respondents. The average perception of control related to salesperson investment costs was 5.61 while the average perception of control related to operating costs was 5.47, both on a 7-point scale. The results on these two perception of control items indicated that these sales managers were indeed well-suited key respondents for this study.

To assess non-response bias, an extrapolation method was used (Armstrong and Overton 1977). Respondents were classified into two groups, early and late respondents, based on the median date of data collection. T-tests were then run to compare the responses between the two groups on all variables of interest included in the models. All t-tests were non-significant at the $\alpha=.05$ level, which indicates no evidence of non-response bias.

Measure Validation

Once data collection was complete, the measures were purified and tested for both reliability and validity. Two tests were completed in order to evaluate the reliability of the construct scales. First, alpha coefficients for each scale were calculated and compared to the minimum suggested value of 0.7 (Nunnally 1978). Second, confirmatory factor analyses (CFA) were conducted to further validate the measures. The CFAs were also used to calculate composite reliabilities and the average variance extracted (AVE) (Fornell and Larcker 1981). Large composite reliabilities coupled with AVEs greater than 0.5 indicate reliability of the construct measure. Scales that did not meet these conditions were evaluated further. Items with low factor loadings were dropped from the scales and the analyses repeated. Composite reliabilities ranged from .970 to .996, and AVEs from .884 to .977. Construct alphas, composite reliabilities, AVEs, and other CFA goodness of fit statistics for the final scales are reported in Table 1.
Table 1. Confirmatory Factor Analysis Results

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Standardized Factor Loadings</th>
<th>Alpha Coefficient</th>
<th>Composite Reliability</th>
<th>AVE</th>
<th>RMSEA</th>
<th>CFI</th>
<th>SRMR</th>
<th>$X^2$ (df, p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTD</td>
<td>.609 -.853</td>
<td>0.862</td>
<td>0.993</td>
<td>0.945</td>
<td>0.075</td>
<td>0.899</td>
<td>0.047</td>
<td>1039.033</td>
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<tr>
<td>CIPD</td>
<td>.667 -.824</td>
<td>0.860</td>
<td>0.987</td>
<td>0.938</td>
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<td></td>
<td></td>
<td>(522, .000)</td>
</tr>
<tr>
<td>CCED</td>
<td>.653 -.830</td>
<td>0.868</td>
<td>0.988</td>
<td>0.942</td>
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<tr>
<td>ATTO</td>
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<td>0.993</td>
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<tr>
<td>CPO</td>
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<td>0.990</td>
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<td>CCEO</td>
<td>.614 -.820</td>
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<td>0.988</td>
<td>0.948</td>
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<tr>
<td>MGRIN</td>
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<td>0.987</td>
<td>0.952</td>
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<tr>
<td>OCC</td>
<td>.619 -.791</td>
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<td>0.970</td>
<td>0.932</td>
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<tr>
<td>ERB</td>
<td>.811 -.898</td>
<td>0.920</td>
<td>0.996</td>
<td>0.963</td>
<td>0.065</td>
<td>0.949</td>
<td>0.075</td>
<td>225.176</td>
</tr>
<tr>
<td>BEHCTL</td>
<td>.551 -.786</td>
<td>0.774</td>
<td>0.974</td>
<td>0.884</td>
<td></td>
<td></td>
<td></td>
<td>(129, .000)</td>
</tr>
<tr>
<td>LT</td>
<td>.600 -.850</td>
<td>0.810</td>
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<tr>
<td>CSENS</td>
<td>.782 -.956</td>
<td>0.936</td>
<td>0.994</td>
<td>0.977</td>
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<td></td>
</tr>
</tbody>
</table>

Note: RMSEA = Root Mean Squared Error of Approximation; CFI = Comparative Fit Index; SRMR = Standardized Root Mean Square Residual; df = Degrees of Freedom

Convergent validity was assessed by examining the results of the CFAs for each construct. All scale items met the three requirements proposed by Anderson and Gerbing (1988): standardized factor loadings should (1) exceed 0.5, (2) be highly significant, and (3) be greater than twice the standard error for the same item. This provides support for convergent validity (Bagozzi and Yi 1988; Fornell and Larcker 1981).

We tested for discriminant validity in two ways. First, each pair of constructs were evaluated to ensure that their shared variance was lower than the AVEs for each of the constructs in the pair. This indicates discriminant validity (Fornell and Larcker 1981). Second, a nested model CFA approach was used. We ran a series of constrained CFA models and compared them to the unconstrained CFA for each pair of constructs. In the constrained versions, we constrained the covariance between the variables to be 1, indicating no discrimination between constructs. Discriminant validity is established when there is a significant difference in the chi-square values between the two models (Anderson and Gerbing 1988). For each pair of constructs we found significant chi-square differences indicating discriminant validity for each pair.

The focal constructs (CMD and CMO) were tested for discriminant validity by calculating the shared variance between the two constructs and evaluating it to ensure that the shared variance was lower than the AVE for the individual constructs (Fornell and Larcker 1981). The shared variance between the two constructs was 0.679, which is lower than the AVE for both CMD (.941) and CMO (.957), providing evidence of discriminant validity.

**Regression Analysis and Results**

Before analyzing the data, composite scores were calculated for all constructs. For the cost mindfulness constructs, composite scores were created for each of the three components by averaging the scale items. These scores were then added together to create a summed composite score for the two cost mindfulness constructs. Composite scores for all other constructs were calculated by averaging the scale
items together. Composite scores were then mean-centered. Interaction terms were calculated by creating new values equal to the product of the independent variable and moderator variable.

The correlation matrix and descriptive summary statistics are presented in Table 2. Variance inflation factor (VIF) scores were calculated in SPSS Version 20 for every explanatory variable, including interaction terms. All values are well below the 10.0 recommended cutoff, with the highest value being 7.895 and the majority of scores being below 5.0. This indicates that multicollinearity is most likely not an issue.

To test the hypotheses, multiple regression analysis was then conducted via MPlus Version 7.2. Four regression models were calculated. The formula for each model is shown below.

**Operational Cost Mindfulness**

\[ \text{Operational Cost Mindfulness} = \alpha + \beta_1 \text{MGRIN} + \beta_2 \text{TEMPRSC} + \beta_3 \text{OCC} + \beta_4 \text{NUMEMP} + \beta_5 \text{FIRMAGE} + \beta_6 \text{INDUSTRY} + \beta_7 \text{CONTROL1} + \beta_8 \text{CONTROL2} \]

**Developmental Cost Mindfulness**

\[ \text{Developmental Cost Mindfulness} = \alpha + \beta_1 \text{MGRIN} + \beta_2 \text{TEMPRSC} + \beta_3 \text{OCC} + \beta_4 \text{NUMEMP} + \beta_5 \text{FIRMAGE} + \beta_6 \text{INDUSTRY} + \beta_7 \text{CONTROL1} + \beta_8 \text{CONTROL2} \]

**Extra Role Behavior**

\[ \text{Extra Role Behavior} = \alpha + \beta_1 \text{CMD} + \beta_2 \text{CMO} + \beta_3 \text{CSENS} + \beta_4 \text{STLT} + \beta_5 \text{BEHCTL} + \beta_6 \text{I1} + \beta_7 \text{I2} + \beta_8 \text{I3} + \beta_9 \text{I4} + \beta_{10} \text{I5} + \beta_{11} \text{I6} + \beta_{12} \text{NUMEMP} + \beta_{13} \text{FIRMAGE} + \beta_{14} \text{INDUSTRY} + \beta_{15} \text{CONTROL1} + \beta_{16} \text{CONTROL2} \]

**Sales Team Performance**

\[ \text{Sales Team Performance} = \alpha + \beta_1 \text{ERB} + \beta_2 \text{NUMEMP} + \beta_3 \text{FIRMAGE} + \beta_4 \text{INDUSTRY} + \beta_5 \text{CONTROL1} + \beta_6 \text{CONTROL2} \]

---

4 Interaction terms for extra role behavior: I1 = CMD x CSENS; I2 = CMO x CSENS; I3 = CMD x LT; I4 = CMO x LT; I5 = CMD x BEHCTL; I6 = CMO x BEHCTL
Table 2. Descriptive Statistics: Means, Standard Deviations, and Correlations

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
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<tr>
<td>1. MGRIN</td>
<td>1.000</td>
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<td></td>
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<td>2. OCC</td>
<td>0.547 **</td>
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<tr>
<td>3. TEMPRSC</td>
<td>-0.120</td>
<td>-0.227 **</td>
<td>1.000</td>
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<tr>
<td>4. CMD</td>
<td>0.490 **</td>
<td>0.512 **</td>
<td>-0.180 *</td>
<td>1.000</td>
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<td>5. CMO</td>
<td>0.575 **</td>
<td>0.615 **</td>
<td>-0.200 **</td>
<td>0.824 **</td>
<td>1.000</td>
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<td></td>
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<td></td>
<td></td>
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<td>6. ERB</td>
<td>0.381 **</td>
<td>0.397 **</td>
<td>-0.005</td>
<td>0.363 **</td>
<td>0.474 **</td>
<td>1.000</td>
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<td>7. STPERF</td>
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<td>0.198 **</td>
<td>0.289 **</td>
<td>0.285 **</td>
<td>0.333 **</td>
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<td></td>
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<td></td>
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<tr>
<td>8. BEHCTL</td>
<td>0.511 **</td>
<td>0.499 **</td>
<td>-0.257 **</td>
<td>0.592 **</td>
<td>0.593 **</td>
<td>0.291 **</td>
<td>0.358 **</td>
<td>1.000</td>
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<tr>
<td>9. CSENS</td>
<td>0.119</td>
<td>-0.009</td>
<td>-0.344 **</td>
<td>0.049</td>
<td>-0.010</td>
<td>-0.112</td>
<td>0.116</td>
<td>0.221 **</td>
<td>1.000</td>
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</tr>
<tr>
<td>10. LT</td>
<td>0.281 **</td>
<td>0.362 **</td>
<td>-0.093</td>
<td>0.363 **</td>
<td>0.379 **</td>
<td>0.379 **</td>
<td>0.334 **</td>
<td>0.349 **</td>
<td>0.113</td>
<td>1.000</td>
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<tr>
<td>11. CONTROL1</td>
<td>0.281 **</td>
<td>0.338 **</td>
<td>-0.060</td>
<td>0.446 **</td>
<td>0.452 **</td>
<td>0.452 **</td>
<td>0.311 **</td>
<td>0.153 *</td>
<td>0.028</td>
<td>0.310 **</td>
<td>1.000</td>
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<td></td>
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<tr>
<td>12. CONTROL2</td>
<td>0.314 **</td>
<td>0.346 **</td>
<td>0.036</td>
<td>0.491 **</td>
<td>0.512 **</td>
<td>0.301 **</td>
<td>0.177 *</td>
<td>0.276 **</td>
<td>-0.011</td>
<td>0.350 **</td>
<td>0.714 **</td>
<td>1.000</td>
<td></td>
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<tr>
<td>13. FIRMAGE</td>
<td>0.047</td>
<td>-0.095</td>
<td>-0.005</td>
<td>-0.090</td>
<td>-0.045</td>
<td>-0.031</td>
<td>-0.007</td>
<td>-0.116</td>
<td>0.061</td>
<td>-0.040</td>
<td>-0.110</td>
<td>-0.027</td>
<td>1.000</td>
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<tr>
<td>Mean</td>
<td>5.409</td>
<td>5.873</td>
<td>2.690</td>
<td>16.181</td>
<td>17.208</td>
<td>5.695</td>
<td>5.057</td>
<td>5.242</td>
<td>4.266</td>
<td>5.721</td>
<td>5.610</td>
<td>5.470</td>
<td>30.670</td>
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<tr>
<td>Std. Deviation</td>
<td>1.071</td>
<td>0.765</td>
<td>0.996</td>
<td>2.433</td>
<td>2.718</td>
<td>0.853</td>
<td>0.845</td>
<td>0.972</td>
<td>1.489</td>
<td>0.861</td>
<td>0.990</td>
<td>0.996</td>
<td>30.805</td>
</tr>
</tbody>
</table>

*p ≤ .05, ** p ≤ .01
In the models of antecedents to cost mindfulness, β_{1,3} represent the regression coefficients for the main effects of the antecedents while β_{4,8} represent the control variables. In the model of extra role behavior, β_{1,2} represent the regression coefficients for the main effects of cost mindfulness of salesperson investment costs and cost mindfulness of operating costs. The regression coefficients β_{3,5} represent the main effects of the moderator variables, cost sensitivity, behavior control, and managerial long-term orientation, while β_{6,11} represent the six possible interaction terms. The remaining coefficients (β_{12-16}) represent the control variables. In the model for sales team performance, β_{1} represents the regression coefficient for the main effect of extra role behavior. The remaining coefficients (β_{2-6}) represent the control variables. The results of the regression models are presented in Tables 3 through 5.

We first test the hypotheses for the antecedents of CMO and CMD. We find that, as hypothesized managerial incentives have a positive impact on both CMO (β= .777, p<.01) and CMD (β= .602, p<.01). Therefore, both H1a and H1b are supported. Organizational cost culture also has a positive impact on both CMO (β= 1.149, p<.01) and CMD (β= .683, p<.01), in support of H3a and H3b. Temporal resources did not have an effect on either CMO (β= -.112, p>.10) or CMD (β= -.075, p>.10), therefore H2a and H2b are not supported.

**Table 3. Regression Results – Antecedents**

<table>
<thead>
<tr>
<th>Variable</th>
<th>CMO</th>
<th>CMD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hypothesis</td>
<td>B</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.287</td>
<td>1.076</td>
</tr>
<tr>
<td>Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGRIN</td>
<td>H1a +</td>
<td>.777</td>
</tr>
<tr>
<td>TEMPRSC</td>
<td>H2a –</td>
<td>-.112</td>
</tr>
<tr>
<td>OCC</td>
<td>H3a +</td>
<td>1.149</td>
</tr>
<tr>
<td>Controls</td>
<td>NUMEMP</td>
<td>-.002</td>
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<td></td>
<td>FIRMAGE</td>
<td>-.001</td>
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<tr>
<td></td>
<td>INDUSTRY</td>
<td>.102</td>
</tr>
<tr>
<td></td>
<td>CONTROL1</td>
<td>.176</td>
</tr>
<tr>
<td></td>
<td>CONTROL2</td>
<td>.719</td>
</tr>
<tr>
<td>Model R²</td>
<td>.546</td>
<td>.441</td>
</tr>
</tbody>
</table>

* Significant at p < .10; ** Significant at p < .05; *** Significant at p < .01

Looking at the main effects of CMO and CMD on ERB, we find that although CMO has a positive impact (β= .081, p<.05), CMD does not (β= .056, p>.10). Therefore, H4b is supported, while H4a is not. In order to investigate the conditional effects of CM, moderating hypotheses were also tested. We find that salesperson cost sensitivity negatively moderates the relationship between CMD and ERB (β= -.052, p<.10), while positively moderating the relationship between CMO and ERB (β= .067, p<.01), in support of both H6a and H6b. In addition, a long term orientation enhances the impact of CMD on ERB (β= .065, p<.10), while attenuating the impact of CMO on ERB (β= -.070 p<.05). This provides support for both H7a and H7b. In support of both H8a and H8b, we find that behavior controls positively moderate the relationship between CMD and ERB (β= .080, p<.01) and negatively moderates the relationship between CMO and ERB (β= -.045, p<.05). Finally, we find that ERB does have a positive impact on sales team performance (β= .271, p<.01), providing support for H5.
### Table 4. Regression Results – Morale

<table>
<thead>
<tr>
<th>Variable</th>
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<th>SE</th>
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<tbody>
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<td>.407</td>
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<tr>
<td>Variables</td>
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<tr>
<td>CMD</td>
<td>H4a +</td>
<td>.056</td>
<td>.044</td>
</tr>
<tr>
<td>CMO</td>
<td>H4b +</td>
<td>.081 **</td>
<td>.040</td>
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<td>CSENS</td>
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<td>-.085 **</td>
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<tr>
<td>LT</td>
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<td>.180 ***</td>
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<tr>
<td>BEHCTL</td>
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<td>.069</td>
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<tr>
<td>CMD_CSEN</td>
<td>H6a –</td>
<td>-.052 *</td>
<td>.030</td>
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<tr>
<td>CMO_CSEN</td>
<td>H6b +</td>
<td>.067 ***</td>
<td>.025</td>
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<tr>
<td>CMD_LT</td>
<td>H7a +</td>
<td>.065 *</td>
<td>.035</td>
</tr>
<tr>
<td>CMO_LT</td>
<td>H7b –</td>
<td>-.070 **</td>
<td>.033</td>
</tr>
<tr>
<td>CMD_BEH</td>
<td>H8a +</td>
<td>.080 ***</td>
<td>.016</td>
</tr>
<tr>
<td>CMO_BEH</td>
<td>H8b –</td>
<td>-.045 **</td>
<td>.020</td>
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<td>Controls</td>
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<tr>
<td>NUMEMP</td>
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<td>.033 *</td>
<td>.020</td>
</tr>
<tr>
<td>FIRMAGE</td>
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<td>-.002</td>
<td>.002</td>
</tr>
<tr>
<td>INDUSTRY</td>
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<td>.046</td>
<td>.030</td>
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<td>CONTROL1</td>
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<td>CONTROL2</td>
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<td>.074</td>
</tr>
<tr>
<td>Model R²</td>
<td></td>
<td>.456</td>
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</table>

* Significant at $p < .10$;  ** Significant at $p < .05$;  *** Significant at $p < .01$

### Table 5. Regression Results – Sales Team Performance

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* Significant at $p < .10$;  ** Significant at $p < .05$;  *** Significant at $p < .01$

**DISCUSSION AND IMPLICATIONS**

Our study adds to the literature by examining the impact of a sales manager’s cost mindfulness on a sales team’s extra role behavior. Our findings suggest some interesting effects of cost mindfulness. First, a high operational cost mindfulness has a positive impact on a sales team’s extra role behavior. This indicates that while a manager is focused on costs and maintaining efficiencies, the sales team morale is high and they are freed from the mental accounting of costs to focus on areas that are of primary concern to salespeople – growing revenue and satisfying customers. The impact of developmental cost mindfulness
on extra role behavior was insignificant. This could indicate that though a manager is focused on helping to increase the expectancy and instrumentality of the sales team, these actions may only be enough to alleviate some of the stress that the sales team is likely to feel related to issues of compensation and continued employment. This creates a situation where developmental cost mindfulness has no appreciable impact on extra role behavior. In addition, we find that extra role behavior has a positive impact on sales team performance, which validates that extra role behavior is an important outcome for managers to be aware of when managing their sales team.

Second, as we hypothesized, the relationships between operational and developmental cost mindfulness and extra role behavior are impacted by different factors. The developmental cost mindfulness and extra role behavior relationship is enhanced when a manager is long-term focused, helping the sales team know that the manager is focused on their development over the long term, and when the manager utilizes behavior controls. This relationship is attenuated when salespeople are sensitive to costs, as this increases the stress and concern related to their ability to maintain their lifestyle outside of work. The impact of operational cost mindfulness on extra role behavior tells a different story. In this case, the relationship is enhanced by a cost sensitive sales team that seeks to alleviate the felt pressure of a focus on costs. It is also enhanced by a managerial short-term focus, when the sales team knows that this cost focus is for a period of time and not something that will continue to put pressure on them for the long term. In addition, the relationship is attenuated by the use of behavior controls. This indicates a sense of “too much,” in that both operational cost mindfulness and the use of behavior controls are related to day to day operational activities of the sales team.

We also find several factors that impact the level of managerial cost mindfulness. Both resources and organizational culture play a role. Managerial incentives increase both operational and developmental cost mindfulness by creating a situation that is conducive to a cost focus. These incentives provide opportunity for increased attention on costs, as well as the use of cost metrics and other cost information. In addition, an organizational cost culture also positively impacts the level of both operational and developmental cost mindfulness by providing a set of values, beliefs, and norms that indicate the importance the organization places on cost and cost control. Contrary to our hypothesis, temporal resources are not a significant predictor of managerial cost mindfulness. This indicates that though there may be concern regarding salesperson turnover, or other negative consequences related to temporal resources, it is not enough to draw focus away from costs and cost related issues.

Theoretical Contributions
This research contributes to marketing theory in several ways. First, it provides meaningful insight into the dynamics of managing a sales team. It highlights how a manager’s cost mindfulness, in terms of both developmental and operational costs, affect an important sales related outcome—extra role behavior. Second, a new construct, cost mindfulness, is conceptualized, defined, and measured. It is shown to have both reliability and validity. The construct consists of three dimensions: attention to cost, cost information processing, and cost control engagement. Adding this construct to the marketing literature brings the ABV into the sales discipline, and highlights the importance of understanding managerial cognition in managing a sales team. Third, this research provides insights into the conditions under which cost mindfulness impacts extra role behavior. As such, it provides a better understanding of how cost mindfulness works, and how it can impact the overall sales team under the conditions of salesperson cost sensitivity, managerial long-term orientation, and the use of behavior controls. Finally, it provides insight into what situational factors impact the level of managerial cost mindfulness.

Managerial Implications
In addition to the theoretical contributions discussed, there are several managerial implications of this research that could be useful for practitioners of sales force management. First, this research provides insight into how a manager can influence sales team extra role behavior while maintaining cost mindfulness.
For example, when focusing on developmental costs, it is important to have a long-term orientation that gives the sales team a sense of security in knowing that the manager is serious about their long term development. In addition, the use of behavior controls can help to increase extra role behavior when focused on developmental costs. However, managers with this focus should be aware of the level of cost sensitivity within their team in order to find ways to alleviate some of the resulting concerns so extra role behavior is not impacted. On the other side, when focusing on operational costs, a manager should focus on the short-term benefits of operational efficiencies and not utilize behavior controls.

Our research also provides some managerial insight into what factors influence the level of managerial cost mindfulness. If an organization seeks to increase cost mindfulness of its managers, it should create a situation that is conducive to that goal. This would include putting managerial incentives into place that focus on costs, cost control, and related activities. In addition, the organization should cultivate a culture that places priority on costs, creates norms around utilizing and discussing cost related information, promotes the efficient use of resources, and creates an environment where managers are encouraged to find ways to control costs.

**Limitations and Future Research**

There are a few limitations worth noting. The limited sample size could be an issue with this study. The sample size should have been significantly larger in order to have the power to test the entire model using structural equation modeling. In addition, the data collected was completely perception based. It was also collected solely from one informant, the sales manager. No secondary, or more objective data was collected to complement the survey data, which could lead to biases that had to be addressed in the analysis. The use of a single informant, the manager, could also lead to biased results as the manager is likely to view the sales team in the best possible light.

There are, however, a few future research opportunities. First, in order to further investigate some of the interesting findings, especially those counter to the expected direction, it would be beneficial to break out the three components of cost mindfulness to see if the components are having differential effects on the outcomes. It is possible that the cost control engagement component is having opposing effects to the attention and cost information processing components. Second, we solely tested the cost mindfulness of sales managers. However, there are two main emphases that a manager can have, as indicated by Rust, Moorman, and Dickson (2002) – revenue emphasis or cost emphasis. Future research could look at the differential impact of a revenue versus cost emphasis, or a relative emphasis of one over the other. Finally, this research was conducted in a sales context. Identifying how a cost mindfulness impacts other areas, such as marketing managers and their teams, or purchasing managers, could provide some interesting insights into the role of costs in managing teams. In addition, research could look at how a cost mindfulness of sales and purchasing managers affects the relationships between the sales team and purchasing agents.
REFERENCES


I AGE, I HOPE: THE EFFECT OF TIME HORIZON AND PROXIMAL DISTANCE

Samer Sarofim and Sanjay Mishra, University of Kansas

ABSTRACT
Relative to younger adults, older adults tend to view time as a limited resource and hence are more involved in positive information processing bias. This research investigates the effect of the time horizon on hope among both younger and older adults. To further explain age-related differences, the moderating effect of temporal distance and age on hope is to be studied. Although older adults may tend to hope more for future uncertain outcomes than younger adults, the temporal distance of the hoped-for outcome could moderate the relationship between age and hope. Finally, marketing implications are discussed.

INTRODUCTION
According to the U.S. Census (2010), in 1990, people aged 65 and over (referred to in this paper as older adults) in the United States of America totaled 31.2 million. This number continued to steadily rise to reach 40.3 million by the year 2010. Between 2000 and 2010, whereas the overall population increased by 9.7%, the older adult population grew by 15.1%. By the year 2050, it is predicted that the aged population (65 years and above) in the U.S. will reach approximately 88.5 million to represent 20.2% of the total population (U.S. Census Bureau, 2010).

Globally, the number of people over 65 will be greater than the number of children under 15 by the year 2050 (Drolet, Schwarz, and Yoon 2010). Big corporations such as Sony and Microsoft have started to focus on the older adult target market (Schechner and Kumar 2009). The focus on the older consumer is economically plausible. Notably, within the United States, the median for the net worth assets for older adults is $170,516 versus just $35,000 for those aged between 35 and 44 (U.S. Census Bureau, 2013).

This rapid increase in the aged population has attracted the attention of both marketing and psychology scholars. Scheibe and Carstensen (2010) explained that people develop and integrate different emotional goals and strategies, as they grow older. In a marketing context, older adults, compared to younger adults, were found to be more persuaded with communication messages that utilize the emotional appeal (Williams and Drolet 2005) for both hedonic and utilitarian products (Drolet, Williams, and Lau-Gesk 2007). Aimed at obtaining further understanding for age-related differences, this research investigates the influence of aging on hope.

THE ROLE OF HOPE IN DIRECTING BEHAVIOR
Given its importance to direct behaviors, hope has been studied within various disciplines such as psychology (Snyder 2000), nursery (Fitzgerald Miller 2007), and politics (Sacks 1997). The 2008 presidential campaign for Barack Obama is an illustration of selling the hope of the American dream (Atwater 2007). Hope is also migrating from religion to the market place (Belk 1996); Christmas rituals have evolved to deviate away for the birth of Christ to the Christmas Santa Claus shopping experience (Belk 2000).

Hope is a positive emotion that is evoked in response to a goal that is important, uncertain, but yet possible (MacInnis and De Mello 2005). Hope is characterized by positive valence and goal congruency of the hoped-for outcome (Lazarus 1991). Thus, hope can either arise from current satisfactory situations (Snyder 2002) with the purpose of future enhancement or originates from unsatisfactory conditions (Lazarus 1999) with the goal of changing, or reversing, the undesirable outcome. To elicit hope, an outcome has to be both desirable (Averill, Catlin, and Chon 1990) and important (Averill et al. 1990). Furthermore,
if an outcome is described as completely certain to happen (100% probability) or completely uncertain to happen (0% probability), hope is no longer evoked (Averill et al. 1990).

Broadly, the market place has become a display for objects of hope. Products and services promise some future benefits that are possible and uncertain, and the fact that consumers are willing to purchase these products resides in the marketers’ ability to enhance the possibility of achieving a goal-congruent outcome (MacInnis and De Mello 2005).

Previous studies have examined hope as an important predictor to consumers’ decisions and behaviors. In the realm of financial decision making, hope was found to influence saving behavior by affecting both the amount of the searched-for information and the level of risk taken in choosing a saving plan (Nenkov, MacInnis, and Morrin 2009). In an advertisement context, Rossiter and Percy (1987) indicated hope as one of the basic emotions that advertisers utilize. Furthermore, both Poels and Dewitte (2008) and Rossiter and Percy (1987) argue that evoking hope influences consumers’ ability to recall product information and willingness to try new products.

Many psychology and marketing researchers have been interested in studying hope (Averill et al. 1990; Averill and Sundararajan 2005; Kim, Kang, and Mattila 2012; Lazarus 1999; MacInnis and Chun 2007; MacInnis, De Mello, and Patrick 2004; MacInnis and De Mello 2005; Poels and Dewitte 2008; Snyder 2000; Snyder 2002). Yet, the effect of age on hope is still an understudied phenomenon. Previous research has shown that older adults differ from younger adults in emotional reactivity (e.g., sadness and anger) (Charles and Carstensen 2008). However, the scholars’ attention to hope among older adults is still in a premature stage.

THE EFFECT OF AGING ON HOPE

Previous research has found that older adults are more confident than younger adults in their ability to control and regulate emotions (Kesseler and Staudinger 2009). Compared to younger adults, older adults showed more avoidance of interpersonal confrontation (Charles et al. 2009), experienced less anger (Charles and Carstensen 2008), and demonstrated better anticipation skills for future emotions. Findings have also shown that older adults (vs. younger adults) assign greater weight to hedonic information (Strange and Leung 1999), focus more on emotional aspects of daily problems (Blanchard-Fields, Chen, and Norris 1997), and consider anticipated happiness more influential for decisions (Chen and Ma 2009).

According to the socioemotional selectivity theory, the perception of the time horizon is an important determinant for emotions, motivations, and behaviors (Carstensen 2006). Because older adults view time as limited (Fung, Carstensen, and Lutz 1999), they dedicate more resources for relationships and emotionally rewarding goals (Carstensen 2006). This effect is found to shift when older adults were informed about medication that could increase their life time significantly (Fung et al. 1999). The socioemotional selectivity theory further suggests that older adults prioritize social and emotional goals over knowledge-related ones (Carstensen, Fung, and Charles 2003). Isaacowitz, Charles, and Carstensen (2000) argued that older adults (vs. younger adults) tend to engage in emotional (vs. factual) processing.

Consistent with the socioemotional selectivity theory, older adults were found to have higher preference to emotionally appealing advertisements for both utilitarian and hedonic products than younger adults (Drolet et al. 2007). When faced with a time devastating situation, younger adults acted similarly to older adults. Compared to freshmen, senior students associated better evaluations to emotional messages because they viewed the amount of time left in school as limited (Williams and Drolet 2005).

As a result of the limited time horizon, older adults dedicate more attention to positive information than negative information (Mather and Carstensen 2003). Charles, Mather, and Carstensen (2003) have shown that older adults (vs. younger adults) recall less negative images as a ratio to both neutral and positive
images. MacInnis and Chun (2007) argue that when the yearned for outcome is important, people will be vulnerable to perceive and interpret information in a way that supports the possibility of the hoped-for outcomes to happen. In the same line of thought, Alcock (1995) suggests that people tend to satisfy their yearnings by deviating away from rationality and believing in what they want to believe. As older adults are more vulnerable to positive bias in information processing, we predict that older adults will feel greater hope for future uncertain outcomes than younger adults. Older (vs. younger) adults perceive time as limited (vs. extended) and hence feel more (vs. less) hope for future goal-congruent outcomes.

**H1:** When faced with positive future uncertain outcomes, older adults (vs. younger adults) will feel more (vs. less) hope.

**H2:** When faced with positive future uncertain outcomes, older adults (vs. younger adults) will have more (vs. less) favorable attitude towards ads.

**H3:** The relationship between age and attitude towards the ads (Aad) is mediated by hope.

### METHOD

Study 1 is designed to test hypotheses 1, 2 and 3. First, the effect of age-related differences on hope will be examined in an advertisement context. Second, hope will be shown to mediate the relationship between age and attitude toward ads. We predict that older adults will feel more hope than younger adults. Additionally, we expect hope to mediate the relationship between age and attitude towards ads such that older adults will feel more hope for the advertised product to achieve the claimed-for future outcomes and consequently have more favorable attitude towards ads.

#### Participants and Procedure

Approximately 75 participants will participate in the study (almost 50% older adults). Older adults may be recruited from the School of Continuing Education and younger adults shall be university undergraduate students who participate in the study to receive course credit.

Participants will be presented with a print ad for a product or service that is designed to evoke hope. At their own pace, participants will read the ad, then answer a 4 item 7-point scale that includes important appraisal dimensions of hope (importance, certainty, desirability, pleasure) that are adopted from (Nenkov et al. 2009) and (Poels and Dewitte 2008) (see appendix). The scores of the 4 items will be averaged to create a single index for hope. Participants will also complete 4 item “credible, realistic, meaningful, relevant” 7-point scale to capture their attitude towards the Ads.

Previous research has shown that optimism can serve as an individual difference variable (Fitzgerald 1979; MacInnis et al. 2004). In this research, all studies will control for the individual differences in optimism using an 8-item scale called the Life Orientation Test (LOT) developed by Scheier and Carver (1985) and used by Bavelas et al. (2002). The scale’s items had satisfactory internal consistency (α=.76) and test-retest reliability (r=.79) (Scheier and Carver 1985).

### IMPLICATIONS

Löckenhoff and Carstensen (2004) have shown that older adults attend to positive information and overlook negative information when they make healthcare decisions. Although this positive bias in information processing may evoke more hope, it could also lead to miscalculating medical risks and making less optimal decisions. Healthcare professionals may develop new strategies when dealing with older adults to ensure they still can make appropriate health decisions without sacrificing the feeling of hope that was found to have a positive effect on coping with illness (Hinds and Martin 1988; Raleigh 1992).
Due to limited cognitive abilities, older adults are more resistant to try new products (Schiffman 1972). Innovative products are hope drivers because they are meant to enhance the possibility of future positive outcomes that are uncertain (MacInnis and De Mello 2005). In light of our predictions, marketers, who aim at generating product trials among older adults, can utilize hope-inducing communication messages that frame the hoped-for outcome to happen in the near future.

**FUTURE STUDIES**

Previous research has shown that when people view time as limited, they tend to be more focused on the present and on feeling satisfied in the moment (Carstensen, Isaacowitz, and Charles 1999). Research has also shown that older adults’ default perception of time is limited (Fung et al. 1999; Williams and Drolet 2005). This is because with chronological aging, time becomes a scarce resource. Therefore, it is conceivable that when the yearned for outcomes are expected in the distant future, older adults will have less hope than if the outcomes are proximal. When time is viewed as limited, older adults may adopt a “here and now” motivation so that they will tend less to hope for an outcome that requires a longer waiting time. Given the limited time horizon view of older adults, we predict that temporal distance of the hoped-for outcome will moderate the effect of age on hope such that: (1) older adults will hope less for temporal distant outcomes than for proximal outcomes and (2) younger adults will hope more for temporal distant outcomes than for proximal outcomes. This research investigates the moderating effect of age and temporal distance on hope.

As the regulatory focus theory (Higgins, Shah, and Friedman 1997) differentiates between promotion and prevention focused goals, hope can also be either promotion focused or prevention focused. Whereas promotion focused hope is defined as “the hope to attain future positive outcome”, prevention focused hope is defined as “the hope to avoid future negative outcome” (Poels and Dewitte 2008). Older adults were found to adopt more prevention focus and less promotion focus than younger adults (Ebner, Freund, and Baltes 2006). Without empirical evidence, Moschis (2003) suggested that older adults may prefer products that help solve a problem rather than promote a benefit. Therefore, it is important to study if goal orientation and age will have a moderating effect on hope. Williams and Drolet (2005) have found that under limited time horizon condition, both older adults and younger adults liked and recalled advertisements that are focused on avoidance of negative outcomes more than those that are focused on attainment of positive outcomes. Therefore, we predict that goal regulatory focus shall moderate the effect of age on hope such that in the prevention focused goal condition, older adults will have an increased level of hope. Consequently, we hypothesize that prevention focused hope will exacerbate the effect of age on hope.

**GENERAL DISCUSSION**

Despite the increasing focus on the older consumer, little attention has been given to understanding age-related differences in experiencing specific emotions. According to the best of our knowledge, this research will be the first to account for the effect of aging on hope within the realm of consumer behavior. Previous marketing research has emphasized the importance of hope in product evaluation, customers’ satisfaction, information search, responding to CSR activities, and accuracy of product information recall and recognition (Kim et al. 2012; MacInnis and De Mello 2005; Poels and Dewitte 2008). Yet, these aforementioned studies did not attempt to disentangle between the older and younger adults’ hope experience. We contribute to the literature by showing that older adults react differently to future uncertain outcomes by feeling more hope than their younger counterparts.

Additionally, this research extends the application of the socioemotional selectivity theory to explain why older adults hope differently from younger adults. Further, this research illustrates the impact of the hoped-for outcome temporal distance on both older and younger adults’ hope experience. It suggests that older adults will hope more for proximal outcomes than temporal distant ones.
Finally, understanding hope among different age groups is shown to have serious marketing and public policy implications. Based on our hypotheses, policies should be made to protect older adults from feeling intensified false hope, which can lead to poor decisions or involvement in more risky behavior. Marketers also will be able to use our findings to adjust their tactics so that their products and services may appeal to different age groups.

APPENDIX

Hope 5-item Scale

1. How certain are you that the product in the ad will achieve the purpose it was made for?
2. How important is it for you to have the product shown in the ad?
3. How much you desire to have the product shown in the ad?
4. How much pleasure will you have if you get the product in the ad?
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THE SLOW FOOD MOVEMENT AND
THE POLITICS OF NEOLIBERALISM

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FIGHTING TO FIT IN: AN EXAMINATION OF THE RELATIONSHIP BETWEEN DESTIGMATIZATION STRATEGIES AND CONSUMER HEALTH

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INTRODUCTION

Incidental exposure to a negative stereotype has been shown to positively influence stereotype-conducive behaviors (McFerran et al. 2010, Campbell and Mohr 2011). For example, being served by an overweight waitress (McFerran et al. 2010) or exposure to a picture of an overweight person (Campbell and Mohr 2011) may lead to less healthful consumption decisions. One can presume, however, that certain aspects of a consumer’s appearance, such as weight, are made explicitly salient several times throughout the day. For example, a poll of women in the U.K. found that 70% of women report thinking about their weight three times a day (Mosier 2012) and research conducted by Glamour magazine found that women average nearly 13 negative thoughts about their body each day (Dreisbach 2011). Furthermore, research continues to point out the frequency and impact of weight-related media and advertising. Taken together, these findings suggest that consumers are often faced with conscious thoughts regarding weight and their individual weight status.

Despite the frequency at which weight is made salient in the minds of consumers, there is a limited amount of research examining how the conscious activation of weight salience affects consumer evaluations and behaviors. In addition, research examining incidental exposure to weight stereotypes has hinted, but not explicitly tested, the idea that social identity or the social categories to which individuals belong, may influence susceptibility to weight-related primes. For example, McFerran et al. (2010) find that the presence of an overweight waitress may have an adverse effect on dieters but no effect on nondieters. The authors offer an identification-based explanation that dieters identify more and assimilate to the overweight waitress and thus exhibit stereotype-conducive behaviors. In addition, McFerran and colleagues also note that the effects of incidental exposure to an overweight stereotype may be affected by the consumer’s weight status and/or weight-related psychological variables (e.g., weight self-importance) and suggest that experimental research has not adequately disentangled how each factor affects consumer behavior. We propose, however, that the physiological and psychological aspects of weight are fundamentally intertwined and jointly affect stereotype activation, particularly for stereotypes associated with stigmatized nondeterministic groups (e.g., groups, like the overweight, whose stigmatized status is seen as controllable).

This research makes several important contributions. First we provide an empirical investigation of the blatant activation of stereotypes associated with stereotyped nondeterministic groups and examine the subsequent effects on stereotype-relevant evaluations and behaviors. We also provide a framework for understanding how the objective and subject aspects of social identity affect consumer outcomes for both target and nontargets. In particular, we posit and find support for the assertion that target group members low in identity self-importance (ISI) and nontargets high in ISI both demonstrate identity-incongruent product evaluations and choices following stereotype activation. Second, we show that these effects do not depend on the valence of the stereotype under consideration and demonstrate how social comparison processes affect consumer outcomes. Lastly, we experimentally manipulate ISI to show the underlying mechanisms for these effects. Specifically, we show that lowering ISI allows target members to employ cognitive resources to objectively consider stereotype-relevant stimuli which, in turn, lead to stereotype-incongruent consumer outcomes. Alternatively, we show that coping strategies mediate the relationship between high ISI and stereotype-unconducive for nontargets.
In the following sections, we briefly review the relevant literature to advance our propositions. We then report two pilot studies and five experiments. Lastly, we conclude with a discussion of the theoretical contribution and implications of our results and provide possible directions for future research.

THEORETICAL BACKGROUND

A substantial body of literature has examined the relationship between stereotype activation and subsequent judgments and behaviors. In general, results indicate that the activation of a negative stereotype increases stereotype-consistent outcomes. However, as noted by Campbell and Mohr (2011), most of these studies have focused on stereotypes associated with deterministic group membership (e.g., women and minorities). Thus, while we may know that the activation of the elderly stereotype influences both young and older consumers to exhibit behaviors associated with old age (Levy 1996; Bargh, Chen, and Burrows 1996), less is known about how the activation of stereotypes associated with nondeterministic groups affect stereotype-conducive evaluations and behaviors (i.e., evaluations and behaviors that are associated with obtaining or maintaining group membership in the stereotyped group). There are a handful of studies that shed light on the effects of activating stereotypes associated with nondeterministic groups and their effects on consumption behaviors (McFerran et al. 2010; Campbell and Mohr 2011). For example, Campbell and Mohr (2011) find that incidental exposure to a picture of an overweight person leads to consumers to eat more and make less healthful food choices. Similarly, McFerran et al. (2010) provide evidence that exposure to an overweight waitress positively influences unhealthful food choices for dieters. Taken together, this body of research suggests that the incidental activation of stereotypes linked with nondeterministic groups leads to stereotype-conducive behaviors and suggests that this effect may be moderated social identity. In contrast to prior literature, however, we focus on the consumer outcomes associated with the conscious activation of stereotypes associated with nondeterministic groups and examine how the objective and subjective aspects of social identity (group membership and ISI) affect subsequent evaluations and behaviors.

Blatant Activation of Negative Stereotypes

Prior research suggests that the activation of a negative stereotype is likely to produce assimilative effects for nontarget group members and that this effect may hold under instances of more blatant priming (Shih et al. 2002). For target group members, however, prior literature has found that the subtle activation of negative stereotypes engenders stereotype assimilation while blatant activation leads to contrast effects for individuals for whom the stereotype is relevant. The a general consensus is that the overt connection between the prime and the dependent variable(s) leads consumers to engage in effortful, motivated thinking to correct for any judgment biases (Martin 1986; Wegener and Petty 1995). It is important to note, however, that the judgment-correction process is less likely to occur under instances of stereotype threat, a situational fear that one will confirm or be judged on the basis of membership in a negatively stereotyped group (Steele and Aronson 1995). For example, research has shown that women are more likely to perform poorly on math tests following the activation of the gender stereotype (Spencer, Steele, and Quinn 1999). Similarly, research has shown that the blatant activation of an overweight status leads overweight consumers to report lower intentions to engage in healthy behaviors (Seacat and Mickelson 2009).

Social Identity and Identity Self-Importance

Social identity is deemed “that part of an individual’s self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value or emotional significance attached to that membership” (Tajfel, 1978, p.63). Research examining the link between social identity and consumption often centers on groups with positive social identities and explores the influence of social similarity (e.g., shared values, shared gender, shared political affiliations, and shared ethnicity) or desired similarity (e.g., athleticism, beauty. Recent consumer research, however, has begun to explore social identity as a means to improve consumer well-being. For example, research by Oyserman (2009) highlights the role that social identity plays in motivating well-being while work by Berger and Rand (2008), show
that linking risky behaviors to unwanted social identities may reduce unhealthy consumption. Despite the increased attention paid to identity driven consumption, few studies have examined the joint effects of group membership and ISI on consumer well-being. The lack of attention paid to the explicit examination of both the objective and subjective aspects of social identity presents a gap in literature that has the potential shed light on identity driven effects by explaining the boundary and/or moderating effects of social identity activation.

Prior literature concerning ISI suggests that the self-importance of a social identity affects the cognitive, affective, and behavioral responses engendered by identity-relevant stimuli. For example, research suggests that the importance of a given identity will ease the processing of identity-relevant information (Markus 1977; Markus, Hamill, and Sentis 1987), positively influence purchase intentions (Reed 2004) and brand loyalty (Deshpande, Hoyer, and Donthu 1986) toward identity relevant products, and influence the frequency of identity-relevant behaviors (Kleine, Kleine, and Kernan 1993). Few studies, however, have concentrated their efforts on understanding the role of weak identification and its impact on consumer evaluations and behaviors. Yet research in this area may prove beneficial for mitigating unhealthy consumption practices. In particular, the implicit assumption in the few empirical studies that have examined ISI from a consumption context, is that weak identification will engender an average or weakened evaluation of identity-relevant stimuli. This idea is explicitly presented by Markus and colleagues (1987) who demonstrate that negatively stereotyped aschematics, individuals who maintain low levels of ISI, display a weakened response toward identity-relevant stimuli. If this is true, then it becomes an empirical question as to whether (a) negatively stereotyped individuals low in ISI exhibit less favorable responses to identity-relevant consumer products and (b) ISI can be manipulated so that this effect may be generalized to out-group members. An objective of the present research is to test these propositions. In particular, we propose that consumers who maintain a negatively stereotyped nondeterministic identity and low ISI will respond in an identity-incongruent manner when the identity is consciously activated. We further propose that ISI may be weakened among negatively stereotyped consumers and that doing so increases deliberate and effortful thinking, which in turn, leads to identity-incongruent consumer outcomes.

Research examining the relationship between stereotype activation and subsequent behavioral outcomes have also concentrated considerable effort into understanding the role that group membership plays in prime-to-behavior effects. However, empirical support concerning stereotype self-relevance as a necessity of group membership has been mixed, with several studies showing that stereotype primes may lead to stereotype-congruent effects among nontarget consumers (i.e., consumers who do not maintain a particular identity) (e.g., Bargh, Chen, M., and Burrows 1996). Our research makes no attempt to directly challenge the notion of group membership and its role in prime to behavior effects. Rather, we adopt the proposition put forth by Markus et al. (1987) that certain identities may be both particularistic and universalistic. This view carries that universalistic identities are those that derive from obvious and apparent social categories and are acquired, to one degree or another, by all consumers. Particularistic identities, however, are identities that are maintained by certain individuals. Markus and colleagues use the universalistic and particularistic framework to suggest that gender, age, physical appearance, and weight status are identities that may be labeled both universalistic and particularistic. This would imply that all consumers have the potential to view universalistic identities as important, regardless of their particularistic identity. Thus, all consumers may view their age, weight, and physical appearance as personally relevant, regardless of their status as in-group or out-group members.

Based on the assumption that universalistic identities have the potential to be perceived as self-important to all consumers, we suggest that nontargets of negatively stereotyped universalistic identities may also respond to identity-relevant stimuli. Importantly, we suggest that nontargets who maintain high levels of ISI will respond in an identity-incongruent manner following blatant stereotype activation. Specifically, we submit that nontargets who maintain high ISI (a) are motivated to maintain their high status group membership and (b) that stereotype activation signals a potential threat to these consumers which
engenders stereotype-incongruent consumer outcomes. In keeping with our predictions for target members, we also believe that high ISI may be manipulated and these effects may be generalized to other nontarget members.

STEREOTYPE ACTIVATION AND STEREOTYPE-INCONGRUENT OUTCOMES

Target Members

We posit that for low level identifiers, the blatant activation of stereotypes associated with group membership deliberative and effortful processing of identity-relevant stimuli which leads consumers to respond less favorably to identity relevant stimuli. This proposition is based, in part, on previous research which suggests that when identity self-relevance is high, either because of individual differences or because of experimental manipulation, consumers rely on previously formed knowledge structures that result in an almost automatic identity-congruent manner (Markus et al. 1987; Bolton and Reed 2004). Consumers who maintain little or no self-relevance concerning the focal identity, however, are expected to analyze the stimuli without regard to their self-concept and/or analyze the stimuli with respect to ‘some other self-structure’ (Markus et al. 1987, pg. 53). We submit that low identifiers will process blatantly activated identity-relevant stimuli from a universalistic frame of reference and, because the negative stereotypes associated with nondeterministic groups are universally undesirable, these consumers will respond in an identity-incongruent manner. In this sense, low identifiers respond rationally (vs. emotionally) to identity-relevant stimuli. We further submit that the result of this more effortful thinking is less favorable evaluations of identity-relevant stimuli and a greater sense of personal efficacy regarding the identity under consideration.

There are, however, two notable exceptions to this effect. The first has to do with boundary permeability, individual movement between social hierarchy structures (e.g., movement from the out-group to the in-group; Tajfel and Turner 1979). Work examining boundary permeability has shown that when group boundaries are more permeable, negatively distinctive consumers are more likely to pursue upward mobility strategies that support positive identity attainment (i.e., an in-group status)(Jackson et al. 1996; Ellemers, Spears, and Doosje 1997). As such, out-group members whose status is more permeable (i.e., high status out-group members), should be more likely to demonstrate stereotype-incongruent outcomes under conditions of low ISI. The second notable exception involves cognitive resources. If, as we suggest, low ISI leads to effortful deliberative processing, then instances where cognitive resources are restricted should attenuate these affects. As such, we suggest that cognitive load will attenuate these effects.

Nontarget Members

Although previous research has fixated on identity threat relating to low status groups, a small stream of literature has considered the possibility of identity threat involving high status groups. Evidence from this research suggests that for high status group members, identity threat arises when evaluating a possible change of status quo (Scheepers and Ellemers 2005; Scheepers et al. 2009). As noted by Scheepers and Ellemers (2005), however, identity threat among high status members is more difficult to assess because group members are more likely to exhibit confidence in their ability, even in the face of status loss. It seems reasonable, however, to assume that individuals who maintain a high level of identity-importance, however, will display more vigilant and forceful monitoring of identity threat and, as such, will display greater reactance to identity threats. This is consistent with research which suggests that threat primarily influences the perceptions and evaluations of high identifiers (e.g., Doosje, Spears, and Ellemers 2002).

Previous research also suggests that situational cues may engender identity threat among members of deterministic stereotyped groups. The lack of attention paid to nondeterministic groups, however, means that less is known about how both members and nonmembers of nondeterministic groups respond to identity-relevant stimuli. As previously mentioned, however, we posit that high status target members who maintain low ISI will respond in an identity-incongruent manner to identity-relevant stimuli. However, we
also suggest that nontargets may respond in a similar fashion. Specifically, we suggest that when the underlying identity is universalistic, blatant stereotype priming will engender a threat response among nontargets high in ISI. In keeping with research concerning high status groups, we suggest that stereotype activation will lead to apprehensions concerning status quo maintenance (i.e., status loss based identity threat; (Scheepers and Ellemers 2005; Scheepers et al. 2009).

We submit that the identity threat experienced by nontargets high in ISI in this instance will lead to lower feelings of self-efficacy and avoidant-focused coping. We base this prediction, in part, on previous research which suggests that identity threat engenders lower levels of self-efficacy (e.g., Seacat and Mickelson 2009). In contrast to research concerning self-efficacy and negatively stereotyped deterministic groups, we suggest that in the face of possible status loss, nontargets will display stereotype-incongruent consumer outcomes. In particular, we suggest that nontargets high in ISI will cope with the stress associated with possible status loss by adopting an avoidance-focused coping strategy to deal with feelings of identity threat but will also engage in activities to minimize the threat. This means that lower feelings of self-efficacy brought about by status loss based identity threat will motivate nontargets to expend more effort to avoid this loss. In keeping with this idea, Pettit, Yong, and Spataro (2010) show that losing status is an aversive psychological state that individuals seek to avoid and that consumers are willing to expend great effort to maintain their current status level. Taken together, we predict that the blatant activation of a negative stereotype associated with a universalistic identity will lead nontargets high in ISI to exhibit lower self-efficacy and stereotype-incongruent evaluations of identity relevant stimuli. We also suggest that avoidance-focused coping mediates the relationship between stereotype activation and stereotype-incongruent outcomes. Such a prediction falls in line with research that suggests that lower efficacy perceptions are associated with avoidant-focused coping (Duhachek 2005) and that emotion-focused coping may be adaptive in situations when self-efficacy is perceived to be low (e.g., Folkman 1984).

RESEARCH OVERVIEW

We chose to use weight as our experimental context because weight is a universalistic identity and because an individual’s membership in weight specific social identities (normal weight versus overweight) is perceived to be nondeterministic. Our first study tests whether our primary predictions hold. That is, study 1 tests whether high status targets low in ISI and nontargets high in ISI respond in an identity-incongruent manner following the blatant activation of stereotypes associated with stereotyped nondeterministic groups. If our predictions hold, one would expect overweight (but not obese) consumers low in weight self-importance (WSI) and normal weight consumers (i.e., nontargets) high in WSI to exhibit stereotype-incongruent choices and evaluations of stereotype-relevant food items. We would also expect overweight, low WSI (OV-LWSI) consumers to express greater levels of diet self-efficacy but that a reverse effect would occur for normal weight, high WSI (NW-HWSI) consumers. Study 2 is intended to replicate these results while examining the effect of stereotype valence. Recent studies have put forth the idea that weight-based stereotype activation may depend on the valence of the stereotype (i.e., negative stereotype = overweight, fat…etc. versus positive stereotype = thin, skinny…etc.) under consideration (Roddy, Stewart, and Barnes-Holmes 2010). If this is true, then the effects for OV-LWSI and NW-HWSI may differ depending on the prime under consideration. However, if OV-WSI and NW-HWSI consumers are strictly responding to activation of the weight construct, results from study 1 should replicate. Study 3 considers the effects of blatantly activating weight stereotypes via social comparison processes. Previous research examining the effects of weight-based social comparison have examined the effects of social comparison using idealized bodies (Richins 1991). Few studies, however, have examined the consumer outcomes associated with an overweight person. We expect that following blatant social comparison to an overweight target, effects will replicate for OV-LWSI consumers but are less likely to extend to NW-HWSI consumers, who are more likely to feel better about themselves (Martin and Xavier 2010).

Studies 4 and 5 more directly test our hypotheses by manipulating high ISI (Study 4) and low ISI (Study 5) as well as the proposed process mechanisms associated with each outcome. In particular, Study
4 manipulates high ISI and tests the contention that coping strategies mediate the relationship between NW-HWSI and stereotype-incongruent outcomes. Alternatively, study 5 manipulates low ISI and examines the mediating effect of cognitive load on the relationship between OV-LWSI consumers and stereotype-incongruent outcomes.

We restricted our sample to women because of their heightened susceptibility to body type social comparisons and overall weight concerns (McFarren et al. 2010). In addition, all data were collected using Amazon Mechanical Turk and instructional attention and manipulation checks were included (Oppenheimer, Meyvis, Davidenko 2009). Also of note, we do not report main effects or nonfocal interactions because they do not yield results central to the aims of this paper.6

Pilot Study 1: Blatant Weight Priming and Negative Affect

A pilot test was administered prior to our experiments to address the potential confounding influence of negative affect on the blatant priming of the overweight stereotype for overweight and obese consumers. To test this matter, a 3 (prime: overweight vs. negative vs. control) x 2 (BMI: overweight vs. obese) x 2 (entrée: high calorie item vs. low calorie item) ANOVA, with food item as a repeated measure, experiment was conducted. A total of 141 participants (M_{age} = 36, SD = 10.5) were assigned to one of three experimental conditions and asked to either write about a typical Saturday afternoon (control condition) or to “describe, in as much detail as possible, a time in life when you felt overweight (overweight condition) or sad (negative affect condition). Describe the circumstances, how you felt, and what you did.” Participants were then given a short filler task and a second task to review a restaurant menu, evaluate two food items (Angus Cheeseburger = high calorie item, César salad = low calorie item), answer questions regarding food item attitudes and purchase intentions, and answer a few demographic questions.

Results indicate a moderately significant three-way interaction for both product attitudes and purchase intentions (Fs (2, 135) = 2.45, 2.44, p values < .10). Contrasts indicate that overweight participants expressed a decline in attitudes toward the high calorie food item after exposure to the overweight prime compared to both the control and negative affect conditions (M_{overweight} = 3.47 vs. M_{control} = 6.0, F(2, 135) = 10.75, p < .001; and vs. M_{negaffect} = 4.87, F(2, 135) = 6.31, p < .01). Similar results were found overweight participants for the purchase intentions measure (M_{overweight} = 3.31 vs. M_{control} = 4.98, F(2, 135) = 10.55, p < .001; and vs. M_{negaffect} = 4.58, F(2, 135) = 7.91, p < .01). Results were nonsignificant for obese consumers (p < .10).

Pilot Test Discussion

Results from our pilot study provide evidence that the blatant priming of the overweight and negative affect constructs lead to diverse responses for overweight participants. Specifically, results show that compared to the control condition, the blatant priming of the overweight construct will weaken consumer evaluations of products directly tied to the negative stereotype (i.e., unhealthy foods) but that this effect is attenuated when the negative affect construct is blatantly primed. In line with our predictions, results indicate that the blatant overweight prime produced no discernable effects for obese consumers. Lastly, the pilot study provides insight into nuances associated with blatantly priming the overweight construct. In particular, results suggest that blatantly priming the overweight construct leads consumers to only express less favorable evaluations of the highest calorie food option, as opposed to also expressing more favorable evaluations of low calorie food items.

Study 1

Pretests. Two pretests were executed to inform stimuli selection. The first pretest (n = 27, M_{age} = 35, SD = 11) was performed to identify a series of solvable anagrams featuring words associated

6 All main effects and nonfocal interactions can be requested from the authors.
with the negative stereotype (e.g., fat, hefty). Participants were asked to indicate whether completing the anagram task made them think about weight (e.g., “After participating in the anagram task, to what extent was weight foremost in your thoughts?”). This measure was used as our manipulation check. The second pretest (n = 31, M_age = 28, SD = 9) was undertaken to select the menu items to be used in study 1. Participants were asked to examine several possible menu items and evaluate the perceived taste and calorie estimates for each item. Results indicate nonsignificant differences in perceived taste between the cheeseburger, grilled chicken salad, salmon, and flatbread pizza (F(3, 84) = .24, p = .87). Results also show a nonsignificant food item-weight status interaction (F(6, 84) = 1.31, p = .26), indicating that weight status did not moderate taste perceptions. Lastly, findings indicate that the cheeseburger was evaluated as significantly more caloric than each of the other food items (all p values < .01).

Participants and Procedures. Two hundred and thirty six (M_age = 36, SD = 12) participants were pre-screened for the purpose of the study. Participants were identified using a separate questionnaire that covered a range of demographic and attitudinal questions (e.g., hair color, weight, protestant work ethic...etc.) and included height and weight measures as well a measure of weight self-importance (WSI). After completing the questionnaire, participants were asked if they would be willing to participate in future studies and those whose self-identified height, weight, and WSI matched the criteria for this study were then contacted approximately two months later (response rate: 47%).

Adapting a priming technique utilized by (Petty et al. 2008), our blatant prime was operationalized as the ratio of prime to nonprime words in a word completion task. Prior to completing the manipulation, participants were given three practice anagrams and were instructed to skip anagrams that they could not solve. During the manipulation, all anagrams were randomized and appeared on the screen, one at a time without repeat. For participants exposed to the blatant prime manipulation, approximately 80% of the words that could be formed were related to the overweight concept while words referencing the overweight concept made up 30% of the anagrams for participants exposed to the non-blatant prime manipulation. Participants were then presented with a distraction task. After completing the distraction task, participants were asked to view a restaurant menu containing the 4 entrée items selected from our pretest and asked evaluative questions concerning the menu and the entrée items. Lastly, participants were asked attitudinal and demographic questions.

Independent Variables. In addition to the blatant overweight prime, the body mass index (BMI) of each participant as well as the participant’s WSI were included as independent variables. BMI was calculated using each participant’s self-reported height and weight. Based on BMI guidelines, participants were then identified as normal weight (coded as ‘0’), overweight (coded as ‘1’), and obese (coded as ‘2’). WSI was measured using a nine item scale anchored by “strongly disagree” and “strongly agree” (α = .90). Following the conceptualizations of Luhtanen and Crocker (1992) and Arnett, German, and Hunt (2003), we included items to measure both the salience and importance of weight status to one’s self-concept (e.g., “I spend a lot of timing thinking about my weight” and “my weight is an important reflection of who I am”). See the Appendix for a complete list of items.

Dieting Self-efficacy, Unhealthy = Tasty Intuition, and Weight Loss Confidence7. Dieting self-

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7 Prior research suggests that a person’s weight may lower self-esteem and/or body esteem (Allon 1982). To account for these (potential) effects, we included self-esteem, weight-esteem, and appearance esteem measures. Self-esteem was measured using the Rosenberg self-esteem scale (α = .83; Rosenberg 1965). Weight (α = .95) and appearance (α = .93) esteem were measured using well established subscales of the Body Esteem Scale (Mendelson, Mendelson, and White 2001). For the purpose of parsimony, however, these measures are only reported when results reach statistical significance (p > .10).
efficacy was measured with a single item anchored by strongly disagree/strongly agree (e.g., “I can manage to stick to my diet even if I have to try several times until it works.”). Adopting an item from Raghunathan, Walker Naylor, and Hoyer (2006), beliefs in the relationship between taste and healthfulness was assessed by asking participants the following question “On a scale of one to nine, how much would you agree with the following statement: food that is unhealthy generally tastes better.” Weight loss confidence was measured by asking participants “How confident are you in your ability to lose weight?” (1 = very unconfident, 9 = very confident).

Menu-Related Dependent Measures. Participants were asked to choose a menu option and answered questions regarding each entrée item using scales anchored by “strongly disagree” and “strongly agree”. Two items measured attitude toward the food items (7-point scales: unfavorable/favorable; bad/good, r values > .89). Two items measured purchase intentions (7-point scales: less likely/more likely; not at all probable/very probable, r values > .95).

Results

Manipulation check. Analyses indicate that participants in the blatant prime condition were more focused on weight than those in the non-blatant condition (Mblatant = 4.84 vs. Mnonblatant = 3.05, F(1,215) = 27.34, p < .001).

Dieting Self-efficacy. Results indicate that the three-way interaction was significant for the dieting self-efficacy (F(4,215) = 3.51, p < .09). Contrasts show that normal weight consumers high in WSI (NW-HWSI) exhibited significantly less dieting self-efficacy after exposure to the blatant prime (Mblatant = 2.10 vs. Mnonblatant = 5.20, F(1,215) = 9.41, p < .01) while overweight consumers low in WSI (OV-LWSI) exhibited significantly more dieting self-efficacy after exposure to the blatant prime (Mblatant = 4.24 vs. Mnonblatant = 1.62, F(1,215) = 5.23, p < .02). Results were nonsignificant across all levels of WSI for obese consumers (all F values < 1).

UnHealthy = Tasty Intuition. Results also reveal a significant 3-way interaction (F(4,215) = 4.92, p < .01) for the unhealthy = tasty measure. Contrasts show that NW-HWSI consumers were more likely to believe that tasty food is unhealthy following the blatant prime (Mblatant = 7.64 vs. Mnonblatant = 4.13, F(1,215) = 6.29, p < .01) and means generally support that the reverse was true for OV-LWSI consumers (Mblatant = 4.77 vs. Mnonblatant = 6.83, F(1,215) = 1.68, p = .19). In addition, although not predicted, overweight consumers moderate in WSI (Mblatant = 6.91 vs. Mnonblatant = 5.23, F(1,215) = 3.21, p < .08) and obese consumers low in WSI (Mblatant = 7.02 vs. Mnonblatant = 2.82, F(1,215) = 4.75, p < .03) exhibited greater agreement that unhealthy food is tasty while overweight consumers high in WSI (Mblatant = 5.45 vs. Mnonblatant = 7.53, F(1,215) = 3.03, p < .08) exhibited less agreement with the unhealthy = tasty view.

Weight Loss Confidence. Results reveal a significant 3-way interaction (F(4,215) = 3.74, p < .01). Contrasts show that NW-HWSI consumers were more likely to report lower confidence in their ability to lose weight after exposure to the blatant prime (Mblatant = 3.47 vs. Mnonblatant = 6.85, F(1,215) = 7.11, p < .01) while OV-LWSI consumers reported higher levels of confidence after viewing the more blatant prime (Mblatant = 6.82 vs. Mnonblatant = 2.65, F(1,215) = 8.41, p < .01).

Entrée Choice. Chi-square analysis was used to examine menu choice. Our analysis focused on how the blatant prime affected participant’s choice of the high calorie menu option. Results show that 100% of overweight consumers low in WSI chose the cheeseburger in the non-blatant prime condition while 0% of OV-LWSI consumers chose the cheeseburger after exposure to the blatant prime (χ²(3) = 8.00, p < .05). Results were nonsignificant in across all other groups (p > .10).

Attitude toward the Entrée Items. Because each participant made ratings of each of the food items, they were analyzed as a within-subjects measure. The 2 (prime: blatant vs. non-blatant) x 3 (BMI: normal
weight/overweight/obese) x 3 (WSI: low/moderate/high) x 4 (menu items) mixed model ANOVA did not reveal a significant 4-way interaction for our attitude measure (F(12, 645) = 1.28, p > .05). Contrast results, however, show the predicted pattern of effects. OV-LWSI consumers displayed less favorable attitudes for our high calorie food item (i.e., the cheeseburger) after exposure to the blatant prime (Mblatant = 3.40 vs. Mnonblatant = 6.85, F(1,215) = 6.71, p < .01). Similar results were found for NW-HWSI consumers (Mblatant = 3.12 vs. Mnonblatant = 5.88, F(1,215) = 5.51, p < .02). Results were nonsignificant for all other groups and all other food items.

Purchase Intentions. Similar to our attitude measures, the 4-way interaction for the purchase intentions was nonsignificant (F(12, 645) = 1.25, p > .05). Contrasts, however, show that OV-LWSI consumers expressed lower purchase intentions for the high calorie food item following exposure to the blatant prime (Mblatant = 3.67 vs. Mnonblatant = 6.99, F(1,215) = 5.24, p < .01). Results for NW-HWSI consumers are directionally correct, but did not reach significance (Mblatant = 2.76 vs. Mnonblatant = 4.17, F(1,215) = 1.21, p = .27).

Discussion of Study 1
In general, results support our contention that for overweight consumers, low WSI is associated with identity-incongruent choices and evaluations of identity-relevant stimuli. In addition, results support our expectations that low WSI is associated with higher reported self-efficacy. Our results also support our prediction that normal weight consumers high in WSI are more likely respond in an identity-incongruent manner to stimuli related to an unwanted identity. Results also support the prediction that our blatant priming manipulation would elicit lower ratings of self-efficacy.

Study 2
In study 2, we used the same procedure and stimuli to examine whether the effects of blatantly priming weight extends to positively valenced weight primes (e.g., thin, skinny...etc.). Participants were 187 (M_age = 36, SD = 11) women recruited using an online consumer panel. As with Study 1, participants were pre-screened for the purpose of the study (response rate: 51%). The procedures in this study were similar to that of Study 1, except that the experimental anagrams contained words related to the thin concept (e.g., thin, skinny...etc.). All dependent measures remained the same (correlations and reliabilities ranged from .79 to .99).

Results
Manipulation check. Results reveal a significant direct effect of the manipulation on weight-related thoughts (Mblatant = 3.93 vs. Mnonblatant = 1.98, F(1,166) = 20.19, p < .001).

Self-esteem. The prime-weight status-WSI 3-way interaction was significant for the self-esteem measure (F(4, 166) = 7.03, p < .001). Results also show that OV-LWSI demonstrated higher levels of self-esteem after exposure to the blatant prime (Mblatant = 4.90 vs. Mnonblatant = 6.87, F(1,166) = 4.61, p < .015).

Dieting Self-efficacy. Results indicate that the three-way interaction was nonsignificant for the dieting self-efficacy (F(4,188) = 1.58, p = .18). Contrasts indicate that OV-LWSI consumers express higher levels of dieting self-efficacy after exposure to the blatant prime (Mblatant = 2.18 vs. Mnonblatant = 6.33, F(1,166) = 2.69, p < .01) while overweight consumers high in WSI express lower levels of dieting self-efficacy after exposure to the blatant prime (Mblatant = 5.31 vs. Mnonblatant = 1.51, F(1,166) = 4.89, p < .03). In addition, although the contrasts were nonsignificant, means suggest that NW-HWSI consumers express lower levels of dieting self-efficacy after exposure to the blatant prime (Mblatant = 4.14 vs. Mnonblatant = 3.18, F(1,166) = 1.24, p = .26).
Unhealthy = Tasty Intuition. Results reveal a moderately significant 3-way interaction (F(4, 166) = 1.94, p = .01). Results suggest that OV-LWSI consumers (M_{blatant} = 6.36 vs. M_{nonblatant} = 3.77, F(1,166) = 2.12, p < .01) are less likely to agree that unhealthy food equals tasty. Results were nonsignificant across all other groups (p > .10).

Entrée Choice. Results were nonsignificant for our focal groups. Results however, show that the blatant prime had a significant, deleterious effect on the food choices of overweight consumers with moderate WSI (χ²(1) = 5.34, p < .01).

Attitude toward the Entrée Items. As expected, a 2 (prime: control vs. blatant) x 3 (BMI: normal weight/overweight/obese) x 3 (WSI: low/moderate/high) x 4 (menu items) mixed model ANOVA revealed the predicted 4-way interaction for our attitude measure (F(12,498) = 2.08, p < .05). Contrast results show that NW-HWSI (M_{blatant} = 4.77 vs. M_{nonblatant} = 6.36, F(1,166) = 4.71, p < .05) and OV-L WSI (M_{blatant} = 5.01 vs. M_{nonblatant} = 6.52, F(1,166) = 2.43, p < .05) display less favorable attitudes for the high calorie food item (i.e., the cheeseburger) after exposure to the blatant prime. Results also suggests that obese consumers high in WSI display more favorable attitudes toward the highest calorie item (M_{blatant} = 5.11 vs. M_{nonblatant} = 1.90, F(1,166) = 3.54, p < .05).

Purchase Intentions. Results show a nonsignificant 4-way interaction for the purchase intention measure (F(12, 498) = 1.34, p = .19). Contrasts show that NW-HWSI exhibit less desire to purchase the high calorie food item after exposure to the blatant prime (M_{blatant} = 3.70 vs. M_{nonblatant} = 5.64, F(1,166) = 5.47, p < .02). Results were nonsignificant for OV-LWSI consumers (M_{blatant} = 5.07 vs. M_{nonblatant} = 5.17, F < 1).

Study 2 Discussion
In general, results mirrored those on study 1, suggesting that the valence of the overweight construct does little to alter the responses of OV-LWSI and NW-HWSI consumers.

Study 3
Study 3 extends our work by examining blatant priming via social comparison. Quite a few studies have examined the psychological, attitudinal, and behavioral effects of blatantly priming an idealized ‘other’ (i.e., a very slim person). Fewer studies, however, have examined consumer outcomes associated with blatant comparisons with nonidealized, overweight others. Presumably, such comparisons occur in the natural environment and such comparisons have the impact to influence consumer well-being.

Pretests. Two pretests were conducted to inform stimuli selection. The first pretest (n = 62, M_{age} = 39, SD = 14) was undertaken to select the model to be used in study 3. In each study participants were asked to view photographs of women who varied in size. Participants were asked to list their first three thoughts when viewing each photo and were asked to evaluate the woman’s weight as well as the quality, color, and realism of each picture. Results indicate that weight perceptions did not vary based on participant weight status (p > .10) and approximately 80% of the participants listed the target women’s weight in the free thought task. Quality, color, and realism results were also sufficient and did not vary between participants. The second pretest was used to identify food items for our menu stimuli. Results indicate nonsignificant differences in taste perceptions for the Angus cheeseburger, crispy chicken sandwich, BBQ chicken wrap, hamburger, and chicken César salad. Results did, however, indicate that the Angus burger was perceived as more caloric than the other menu options (p < .001). It should be noted that these results did not vary by participant weight status (p < .01).

Participants and Procedure and Dependent Measures. We recruited 217 (M_{age} = 37, SD = 12) using the same screening techniques outlined in Studies 1 and 2 (response rate: 63%). Adapting a priming technique utilized by Campbell and Mohr (2011), participants first read that we were trying to identify a
potential spokesperson for a nationally recognized consumer product and that we would like their initial thoughts on a candidate. They were then shown a picture of either an overweight woman or a robot (the control condition) and asked to list the first three thoughts that came to mind. After listing their thoughts, participants were then provided a distraction task. Following this task, participants were asked to view a restaurant menu containing 5 entrée items: an Angus bacon cheeseburger, a crispy sandwich, a BBQ chicken wrap, a plain hamburger, and a chicken Caesar salad. Participants were then asked their level on involvement and attention to the menu and then asked evaluative questions concerning the food items shown on the menu. Our dependent measures included product attitude ($r > .87$), purchase intentions ($r > .94$), and unhealthy = tasty intuition. In addition, we examined consumer’s choice of entrée.

**Results**

**Manipulation Check.** Analysis show that participants exposed to the picture of the overweight women were more likely to generate weight-related thoughts in the free-thought portion of the experiment ($M_{blatant} = 82\%$ vs. $M_{control} = 3\%$; $\chi^2 = 114.24, p < .001$).

**Attitude toward the Entrée Items.** Because each participant made ratings of the food items they were analyzed as a within-subjects measure. The $2$ (prime: blatant vs. control) x $3$ (BMI: normal weight/overweight/obese) x $3$ (WSI: low/moderate/high) x $5$ (menu items) mixed model ANOVA indicated a significant interaction for our attitude measure ($F(16, 784) = 1.65, p < .05$). Results for OV-LWSI consumers suggest that their attitudes toward the Angus Burger declined after exposure to the blatant prime ($M_{blatant} = 4.85$ vs. $M_{control} = 6.88$, $F(1,215) = 3.23, p < .07$). Contrary to our expectations, the blatant prime led NW-HWSI to express more favorable evaluations of the high calorie item ($M_{blatant} = 6.63$ vs. $M_{control} = 3.31$, $F(1,215) = 3.74, p < .05$).

**Purchase Intentions.** The mixed model ANOVA indicated a significant interaction for our purchase intention measure ($F(16, 784) = 1.57, p < .07$). Contrast results show that OV-LWSI consumers expressed lower purchase intentions for the Angus cheeseburger after exposure to the blatant prime ($M_{blatant} = 4.59$ vs. $M_{control} = 3.31$, $F(1,215) = 3.74, p < .05$). Results were nonsignificant for NW-HWSI consumers but means suggest that higher purchase intentions after exposure to the blatant prime ($M_{blatant} = 5.49$ $M_{control} = 3.74$, $F(1,215) = 1.26, p > .10$).

A follow-up study using the same sample population ($n = 106$, $M_{age} = 31$, $SD = 9$) and procedure as the main experiment was designed to capture our efficacy and weight loss confidence measures. Results also indicate that the 3-way interaction was nonsignificant ($F(4, 86) = 1.39, p > .10$). Follow-up contrasts, however, show that both OV-LWSI WSI ($M_{blatant} = 2.21$ vs. $M_{control} = 5.24$, $F(1, 86) = 4.13, p < .05$) and overweight, high WSI ($M_{blatant} = 3.84$ vs. $M_{control} = 5.28$, $F(1, 86) = 3.26, p < .05$) consumers express lower levels of dieting self-efficacy after exposure to the prime. Results also show that NW-HWSI consumers express higher levels of dieting self-efficacy after exposure to the prime ($M_{blatant} = 5.16$ vs. $M_{control} = 3.86$, $F(1, 86) = 3.26, p < .10$).
Study 3 Discussion

Results were less consistent for our blatant social comparison weight prime. In general, results support the notion that OV-LWSI consumers express less favorable evaluations of identity-relevant stimuli following exposure to the blatant prime. Results, were nonsignificant for food choice, unhealthy = tasty intuition, weight loss confidence, and identity-relevant self-efficacy. In addition, results reveal that NW-HWSI consumers express identity-congruent evaluations of identity-relevant stimuli and express lower levels of identity-relevant self-efficacy following the social comparison prime.

Study 4

The objective of study 4 was to manipulate rather than measure high WSI to provide a more stringent test of our predictions and to examine avoidant coping as the underlying mechanism driving the effect of high WSI on identity-incongruent outcomes among normal weight consumers.

Participants and Procedures. A total of 182 participants (M_{age} = 36, SD = 13) were randomly assigned to one of two experimental groups, high WSI or a control condition. As with all experimental stimuli, our high WS manipulation was pretested and results did not differ between the different weight status groups (p > .10). After completing the manipulation participants were presented with two short and ostensibly unrelated studies. The first study was an unrelated filler task. After the filler task, participants were told that they would be asked to evaluate a small series of new consumer package goods. The participants were then shown a total of 5 randomly presented packaged products, 3 unrelated products, 1 unhealthy food product (a milk shake), and 1 healthy product (a salad). For the food products, participants were asked questions regarding the product’s design, product attitudes, purchase intentions, and taste perceptions, the last 3 questions constituted our food-related dependent measures. Participants were then asked a series of questions to rate the level of avoidant coping involved in food related decisions (e.g., “I wish that the situation would go away or somehow be over with,” 1 = strongly disagree, 7= strongly agree; Folkman and Lazarus 1988) and answer a few additional scale items and demographic questions.

Results

Manipulation Check. Results show a significant direct effect of the WSI manipulation on weight-related thoughts (F(1, 172) = 164.43, p < .001).

Esteem Measures. The WSI manipulation-weight status interaction was significant for our appearance esteem measure (F(2, 172) = 2.81, p < .06) and approached significance for our weight (F(2, 172) = 2.18, p = .11) and self-esteem (F(2, 172) = 1.41, p = .25) measures. Follow-up contrasts show that obese consumers reported higher levels of appearance (M_{HWSI} = 3.46 vs. M_{control} = 2.69, F(1,172) = 3.96, p < .05), weight (M_{HWSI} = 2.69 vs. M_{control} = 1.68, F(1,172) = 6.20, p < .05), and self (M_{HWSI} = 4.90 vs. M_{control} = 4.18, F(1,172) = 2.87, p < .10) esteem following exposure to the high WSI manipulation.

Weight Self-importance. The WSI manipulation-weight status interaction was nonsignificant (F(2, 172) = .66, p > .10). Contrary to our expectations, normal weight consumers did not express higher levels of WSI (p > .10). However, results show that obese consumers expressed lower levels of WSI after exposure to the manipulation (M_{HWSI} = 5.76 vs. M_{control} = 6.78, F(1,172) = 4.03, p < .05).

Avoidant-coping. The WSI manipulation-weight status interaction was significant for avoidant-coping (F(2, 172) = 3.77, p < .05). Follow-up contrasts show that the high WSI manipulation led normal weight consumers to express higher levels of avoidant-coping (M_{HWSI} = 3.10 vs. M_{control} = 3.75, F(1,172) = 7.49, p < .01). Results were nonsignificant for other groups (p > .10).

8 Additional details regarding all procedures and examples of experimental stimuli are available upon request.
Attitudes towards the Products. Because participants rated both food items, we employed a 2 x 3 x 2 design with the high WSI manipulation and weight status serving as between-subjects factors and food item as a within-subjects factor. Results indicate a nonsignificant 3-way interaction (F(2,173) = .01, p > .10). Follow-up contrasts, however, indicate that the high WSI manipulation led normal weight consumers to express less favorable attitudes towards the unhealthy food item compared to the control condition (M_{HWSI} = 3.70 vs. M_{control} = 4.63, F(1,173) = 4.82, p < .05). Contrasts results were nonsignificant for other groups and were nonsignificant for the healthy food item (p > .10).

Purchase Intentions. Results indicate a nonsignificant 3-way interaction (F(2,173) = .24, p > .10). Follow-up contrasts, however, indicate that the high WSI manipulation led normal weight consumers to report less favorable purchase intentions for the unhealthy food item compared to the control condition (M_{HWSI} = 3.53 vs. M_{control} = 4.57, F(1,172) = 5.40, p < .05).

Perceived Taste. Results indicate a nonsignificant 3-way interaction (F(2,173) = 1.15, p > .10). Contrast results for normal weight consumers are directionally correct but do not reach significance for the unhealthy food item (M_{HWSI} = 4.71 vs. M_{control} = 5.02, F(1,172) = .53, p > .10).

The Mediating Effect of Avoidant Coping. We predicted that avoidant coping would mediate the relationship between high WSI and identity-incongruent outcomes (i.e., evaluations of unhealthy food products for normal weight consumers). A test of the proposed mediation was performed using bootstrapping procedures (SPSS PROCESS, Hayes 2013). Results from our analysis show that the indirect effect of the high WSI manipulation, through the mediator of avoidant-coping, was significant for our attitude (CI = .02 to .74) and purchase intention (CI = .03 to .73) measures but nonsignificant for our perceived taste measure (CI = -.07 to .57).

Figure 1: The Effect of High WSI on Purchase Intentions for the Unhealthy Food Item

![Figure 1: The Effect of High WSI on Purchase Intentions for the Unhealthy Food Item](image)

Study 4 Discussion
In general, results support our contention that high WSI will motivate normal weight consumers to express identity-incongruent evaluations of identity-relevant products and that this effect is mediated by avoidant-coping. However, our results did not yield significant effects for our efficacy measure and our WSI measure. We submit that the lack of significance for these measure could be the result of coping for normal weight consumers. In addition, our results suggest that manipulating high-WSI may influence obese consumers to respond in a self-protective manner.
Pilot Study 2

Taken together, results from studies 1-3 suggest that lowering weight self-importance may engender identity-incongruent results among overweight consumers. That said, the purpose of our second pilot study is to identify the best method(s) for reducing weight self-importance among overweight consumers. Prior research suggests that mindfulness reduces identity investment and lessens reactivity and emotion-laden responses in favor of objective responses to identity-relevant stimuli (Baer 2003; Brown et al. 2008). Research also suggests that promoting a positive body image may decrease body investment (Wood-Barcalow, Tylka, Augustus-Horvath 2010). Moreover, prior research suggests that the self-importance attached to weight may be tied to the lack of social acceptance associated with an overweight or obese status (Crocker, Cornwell, and Major 1993). Thus, it seems reasonable to infer that engendering mindfulness and increasing body positivity and social acceptance may reduce weight self-importance. In addition to utilizing 3 manipulations that tap into each of these conceptualizations, we also modified a manipulation utilized by Reed (2004) and meant to lessen feelings of social identity importance in the context of familial connection. Lastly, we included a single control condition.

Participants and Procedures. A total of 160 participants (M_age = 34, SD = 11) were randomly assigned to one of five experimental conditions. The procedures and measures were identical to those used in study 4, except that we used a fruit and yogurt parfait as our healthy food item.

Manipulation Check. Results show a significant direct effect of the WSI manipulations on weight-related thoughts (F(4, 143) = 27.58, p < .001). Contrasts indicate that each of the WSI manipulations led an increase in weight related thoughts compared to the control condition (M_control = 2.46 vs. M_lowsalience = 5.08, F(1, 143) = 8.15, p < .001; and vs. M_socialacceptance = 4.27, F(1, 143) = 5.50, p < .001; and vs. M_bodypos = 5.12, F(1, 143) = 8.16, p < .001; and vs. M_mindful = 5.11, F(1, 143) = 8.33, p < .001).

Weight-esteem. The WSI manipulation-weight status interaction was nonsignificant (F(8, 143) = 1.29, p > .10). Follow-up results, however, show that each of the manipulations led overweight consumers to express higher levels of weight esteem in comparison to the control condition (M_control = 2.36 vs. M_lowsalience = 4.58, F(1, 143) = 2.68, p < .01; and vs. M_socialacceptance = 4.06, F(1, 143) = 2.05, p < .05; and vs. M_bodypos = 4.25, F(1, 143) = 2.15, p < .05; and vs. M_mindful = 4.02, F(1, 143) = 1.88, p < .06).

Dieting Self-efficacy. The 2-way interaction was nonsignificant for our dieting self-efficacy measure (F(8, 143) = .76, p > .10). Contrasts show that the low salience manipulation led overweight consumers to express higher levels of dieting self-efficacy than each of the other manipulations (M_lowsalience = 5.43 vs. M_control = 3.62, F(1, 143) = 2.06, p < .05; and vs. M_socialacceptance = 4.02, F(1, 143) = 1.52, p = .13; and vs. M_bodypos = 3.56, F(1, 143) = 1.92, p < .06; and vs. M_mindful = 3.56, F(1, 143) = 1.93, p < .06).

Weight Self-importance. The WSI manipulation-weight status interaction was nonsignificant (F(8, 143) = .84, p > .10). Follow-up contrasts show that the low salience manipulation led overweight consumers to express lower levels of WSI in comparison to the control condition (M_lowsalience = 4.95 vs. M_control = 6.44, F(1, 143) = 1.85, p < .06). Results also suggest that the mindfulness manipulation increased WSI among obese consumers (M_mindful = 7.21 vs. M_control = 6.06, F(1, 143) = 1.72, p < .09).

Attitudes towards the Products. Because participants rated both food items, we employed a 5 x 3 x 2 design with the low WSI manipulations and BMI serving as between-subjects factors and food item as a within-subjects factor. Results indicate a nonsignificant 3-way interaction (F(8,143) = .96, p = .01). Follow-up contrasts indicate that the low salience manipulation (M_lowsalience = 2.55) led to less favorable attitudes towards the unhealthy food item compared to the control (M_control = 4.67, F(1, 143) = 2.07, p < .05), social acceptance (M_socialacceptance = 4.56, F(1, 143) = 1.85, p < .07), and mindfulness (M_mindful = 4.59, F(1, 143) = 1.80, p < .08) conditions. Results also show normal consumers expressed more favorable evaluations of the
healthy food item after exposure to the social acceptance and body positivity manipulations compared to the control manipulation (Mcontrol = 4.71 vs. Msocialacceptance = 5.83, F(1, 143) = 1.94, p < .05; and vs. Mbodypos = 5.66, F(1, 143) = 1.77, p < .08).

Purchase Intentions. Results indicate a nonsignificant 3-way interaction (F(8,143) = 1.01, p > .10). Follow-up contrasts suggest that the low salience manipulation led to less favorable purchase intentions towards the unhealthy food item in comparison to the control condition among overweight participants (Mcontrol = 5.28 vs. Mlowsalience = 3.12, F(1, 143) = 2.06, p < .05). Interestingly enough, results also show that the social acceptance manipulation led overweight consumers to express lower purchase intentions toward the healthful food item compared to the control and low salience conditions (Msocialacceptance = 5.30 vs. Mcontrol = 6.12; F(1, 143) = 1.77, p < .10). In addition, results show that each of the LWSI manipulations led normal weight consumers to express more favorable purchase intentions toward the healthful food item (Mcontrol = 4.47 vs. Mlowsalience = 5.32, F(1, 143) = 1.77, p < .10; and vs. Msocialacceptance = 5.81, F(1, 143) = 2.43, p < .05; and vs. Mbodypos = 5.60, F(1, 143) = 2.20, p < .05; and vs. Minmindful = 5.45, F(1, 143) = 1.71, p < .10).

Pilot Test 2 Discussion
Results show that the low salience manipulation lowered WSI among overweight participants. Further, results provide preliminary evidence that lowering WSI (via the low salience manipulation) led overweight consumers to express stereotype-incongruent evaluations for the unhealthy food product and increase identity-relevant self-efficacy perceptions.

Study 5
Study 2 attempts to replicate the patterns of results found in pilot study 2 (n = 134, Mage = 38, SD = 12). The procedures and measures were identical to those used in study 4, except for two notable differences. First, we chose to use decidedly healthy and unhealthy food options (salad and ice cream).9 In addition, we included a high versus low cognitive load manipulation (Shiv and Fedorikhin 1999) to examine whether the mechanism underpinning our results is cognitive in nature. If, as we expect, cognitive processing underlies the phenomena at hand, then restricting cognitive resources (i.e., high cognitive load), should attenuate the effect of low WSI.

Results
Manipulation check. Results reveal a significant direct effect of the WSI manipulation on weight-related thoughts (MLWSI = 5.59 vs. Mcontrol = 2.39, F(1,120) = 370.11, p < .001).

Dieting and Self-efficacy. Results indicate that the three-way interaction was nonsignificant for the dieting self-efficacy (F(2,120) = .63, p > .10) measure. Contrasts indicate that overweight consumers under no cognitive load expressed an increase in dieting self-efficacy (MLWSI = 3.89 vs. Mcontrol = 2.72, F(1,120) = 2.15, p < .10).

Weight Self-Importance. Results indicate a significant prime-weight status-cognitive load interaction for our weight self-importance measure (F(2,120) = 2.77, p < .07). Although nonsignificant, the direction of means suggest that overweight (MLWSI = 4.42 vs. Mcontrol = 5.31, F(1,123) = 1.66, p > .10) and obese (MLWSI = 4.23 vs. Mcontrol = 5.24, F(1,123) = 1.44, p > .10) participants under no cognitive load, exhibited a decrease in WSI after exposure to the manipulation.

9 A pretest was run to ensure that salad and ice cream are equally tasty (p < .05) but that salad is perceived as significantly healthier (p < .001).
**Attitude toward the Products.** Because each participant made ratings of the food items, they were analyzed as a within-subjects measure. The 2 (prime: low WSI vs. control) x 3 (BMI: normal weight/overweight/obese) x 2 (cognitive load: low vs. high) x 2 (menu items) mixed model ANOVA revealed a significant 4-way interaction for our attitude measure (F(2, 120) = 3.74, p < .05). Follow-up tests show that overweight participants under no cognitive load exhibited lower attitudes toward the unhealthy food option following exposure to the WSI manipulation (M_{LWSI} = 5.48 vs. M_{control} = 6.40, F(1,120) = 2.82, p < .10). Contrary to our expectations, however, our attitude measure produced a number of unexpected results. In particular, results also show that overweight consumers under high cognitive load also expressed less favorable attitudes concerning the unhealthy food item after exposure to the LWSI manipulation (M_{LWSI} = 4.53 vs. M_{control} = 5.54, F(1,120) = 2.68, p < .10). Results also show that a similar pattern of effects emerged for obese consumers under low cognitive load (M_{LWSI} = 4.84 vs. M_{control} = 6.20, F(1,120) = 5.17, p < .05). In addition, results suggest that for normal weight consumers, a boomerang effect emerged: under low cognitive load, the WSI manipulation led to more favorable evaluations of the unhealthy food item (M_{LWSI} = 5.04 vs. M_{control} = 6.11, F(1,120) = 3.98, p < .05).

**Purchase Intentions.** Results indicate a significant 4-way interaction (F(2, 120) = 3.75, p < .05). Contrasts show that overweight consumers under low cognitive load expressed lower purchase intentions for the unhealthy food item after exposure to the LWSI manipulation (M_{LWSI} = 4.54 vs. M_{control} = 6.16, F(1,120) = 6.33, p < .05). This effect was nonsignificant under high cognitive load (M_{LWSI} = 4.07 vs. M_{control} = 4.95, F(1,120) = 1.62, p > .10). Similar to our attitude measure, results show that under low cognitive load, the LWSI manipulation led obese consumers to express lower purchase intentions (M_{LWSI} = 3.97 vs. M_{control} = 6.25, F(1,120) = 11.64, p < .01) and normal weight consumers to express greater purchase intentions for the unhealthy food item (M_{LWSI} = 4.07 vs. M_{control} = 5.23, F(1,120) = 4.44, p < .05).

**Perceived Taste.** Results indicate a nonsignificant 4-way interaction (F(2, 120) = 1.60, p > .21). Follow-up contrasts, however, show that overweight consumers (M_{LWSI} = 5.47 vs. M_{control} = 6.73, F(1,120) = 4.26, p < .04) and obese consumers (M_{LWSI} = 4.90 vs. M_{control} = 6.54, F(1,120) = 6.80, p < .01) under low cognitive load express less favorable perceptions of the unhealthy food item’s taste following exposure to the LWSI manipulation.

Figure 2: The Effect of Low WSI on Purchase Intentions for the Unhealthy Food Item
Study 5 Discussion

Results from study 5 present a range of notable effects. First, results for overweight consumers generally fall in line with our predictions concerning the relationship between low WSI and identity-incongruent evaluations and self-efficacy perceptions. Unexpected results, however, occurred for obese and normal weight consumers. In particular, results show that the low WSI manipulation led to identity-incongruent evaluations among obese consumers but engendered lower levels of perceived dieting self-efficacy. These findings could indicate that manipulating low WSI engenders identity-incongruent consumer outcomes for overweight and obese consumers. However, the decrease in dieting self-efficacy suggests that a different process may be at work. Results also reveal that the low WSI manipulation produced a boomerang effect, leading normal weight consumers to exhibit identity-congruent consumer outcomes.

DISCUSSION

In this research, we find evidence that the blatant activation of a universalistic, nondeterministic social identity may have a profound effect on consumer evaluations and choices. In particular, our research shows that the blatant activation of stereotypes associated with a universalistic, nondeterministic social identity may be associated with identity-incongruent consumer evaluations and choices for high status (overweight) targets low in ISI and nontargets (normal weight) high in ISI. We also show that the blatant activation of a universalistic, nondeterministic social identity lead high status targets low in ISI to express higher levels of identity-relevant self-efficacy but that the reverse is true for nontargets high in ISI (studies 1-2). The current research also demonstrates that these effects hold during instances of social comparison with a similar ‘other’ for high status targets low in ISI but that such comparisons lead nontargets high in ISI to exhibit identity-congruent consumer evaluations (study 3). In addition, we find evidence that high ISI may be experimentally manipulated and that doing so engenders identity-incongruent consumer outcomes for nontargets. Avoidant coping was found to mediate the relationship between high WSI and identity-incongruent outcomes for nontargets (study 4). Along similar lines, our research demonstrates that low ISI may be experimentally manipulated and that doing so engenders higher levels of identity-relevant self-efficacy among low status targets but lowers levels of identity-relevant self-efficacy among low status targets. Both groups, however, respond to identity-relevant stimuli in an identity-incongruent manner. We also find that experimentally manipulating low ISI led nontargets to exhibit identity-congruent consumer evaluations and that the effects of experimentally manipulating low ISI are attenuated by restrictions to cognitive resources (study 5).

Theoretical Contributions and Implications for Practitioners and Policy Makers

This paper extends research on the relationship between stereotype activation and consumer outcomes for stereotypes associated with stereotyped nondeterministic groups (McFerran et al. 2010; Campbell and Mohr 2011). In particular, we examine the joint role that objective and subjective social identities play in determining consumer outcomes. Our findings also offer insights for practitioners and policy makers interested in strategies aimed at supporting consumer well-being. For these groups, our research suggests that a ‘one size fits all’ strategy may be less effective than targeted efforts which take into consideration varying levels of objective and subjective consumer identity. Our results also suggest that policy makers and practitioners would be well served to quickly identify the self-importance consumer’s maintain for certain identities and that attempts to manipulate identity self-importance may prove beneficial in counteracting maladaptive behaviors.

Limitations and Future Research

Certain limitations of this research present a number of opportunities for future research. First, although we contend that our findings will generalize across a number of nondeterministic out-groups (e.g., certain debtors…etc.), the current research solely focuses on weight status. Further research is needed to examine if the current findings extend to other groups. Second, due to the unique nature of the required
sample (overweight and obese women), it was difficult to adequately test our propositions in a lab, which limited our ability to collect behavioral measures. That said, future research might incorporate a field study to improve the robustness of our findings. Another limitation may be the use of BMI, which may a flawed resource for identifying overweight and obese consumers. Moreover, we focused our study on established weight categories (normal weight, overweight). Future research might examine how high and low WSI affects consumers who are nearer to status gain or loss (i.e., status gain – consumer who have lost weight and are within close range of normal weight; status loss – consumers who have gained weight and whose BMI is within close range overweight).
REFERENCES


APPENDIX

Weight Self-Importance (WSI) Scale

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>My weight is something I rarely think about.</td>
</tr>
<tr>
<td>2.</td>
<td>I really don't have clear feelings about my weight.</td>
</tr>
<tr>
<td>3.</td>
<td>I spend a lot of time thinking about my weight.</td>
</tr>
<tr>
<td>4.</td>
<td>Losing weight is a personal goal.</td>
</tr>
<tr>
<td>5.</td>
<td>My weight is an important part of who I am.</td>
</tr>
<tr>
<td>6.</td>
<td>My weight has very little to do with who I am.</td>
</tr>
<tr>
<td>7.</td>
<td>My weight is an important reflection of who I am.</td>
</tr>
<tr>
<td>8.</td>
<td>My weight is unimportant to my sense of what type of person I am.</td>
</tr>
<tr>
<td>9.</td>
<td>My weight is an important part of my self-image.</td>
</tr>
</tbody>
</table>

a Items ranged from (1) strongly disagree to (9) strongly agree
b Items were reverse coded so that lower scores reflected lower weight self-importance
c Prior to testing our predictions, principal components (PC) and a confirmatory factor analyses (CFA) confirmed the internal consistency and discriminant validity of the WSI scale. Using a Varimax rotation, the PC factor analysis of the level of weight identification and weight importance items resulted in a two factor solution that explained more than 65% of total variance in each experiment.
YOU CAN’T MAKE ME, BUT YOU SHOULD TRY: 
BENEFITS OF CONTROLLING BEHAVIOR BY BRANDS

Lura Forcum and Shanker Krishnan, Indiana University

ABSTRACT

Firm activity intended to increase consumer engagement in social media settings, such as having people share or respond to the brand’s posts and content, can be seen as a control attempt. While controlling others generally elicits negative responses, we demonstrate that it can simultaneously have positive effects. Five experiments show that when firms try to control consumers, consumers evaluate the brand as more anthropomorphic. This is because a brand that intends to control a consumer is more likely to be attributed a mind with the intention to control, making the brand more humanlike. A brand with a mind is also seen as more deserving of moral care and concern. The boundaries of this relationship are also explored by examining the roles of two moderators: agent detection ability and brand reputation. Thus, this research contributes to the brand anthropomorphism literature by showing that mind attribution, which goes beyond anthropomorphism through human-like appearance, can be elicited with minimal linguistic cues and has beneficial effects for the brand. This work also offers insights for the mind perception and brand relationship literatures and is managerially useful.

Brands are increasingly active in social media, and brand actions in such contexts are focused more on relationship building and customer engagement, in contrast with the purchase and consumption focus of more traditional advertising. However, many brand actions intended to increase consumer engagement, such as directing people to share or respond to posted content, can also be perceived as attempts to control. In such cases, the brand attempts to cause the consumer to carry out a particular action, without offering anything in return. Figure 1 displays examples of such control attempts actually employed by firms in social media contexts.
Most adults would say that others have no right to manipulate their actions or attitudes (Jensen, 1995). We might intuitively expect any person or entity that engages in a control attempt to be unlikely to succeed in changing a person’s behavior; rather a control attempt seems likely to elicit anger, annoyance, and dislike. However, this research seeks to demonstrate that brands’ control attempts may also have beneficial effects, such as cooperative and supportive responses on the part of consumers. This is because a brand that seems controlling may be more likely to be attributed a mind, leading it to be viewed in a more anthropomorphic manner. This increased humanness leads to downstream effects in which consumers are more likely to feel concern for or a desire to help the brand. For example, people may be more accepting of a surcharge intended to help a struggling brand if it is perceived as more humanlike. They may also view intentional harm as more troubling or wrong when it is done to an anthropomorphic, rather than non-anthropomorphic brand. Thus, rather than eliciting solely negative reactions, a controlling brand may be the beneficiary of consumers’ care and concern.

While the marketing literature has examined brand and product anthropomorphism communicated via a human-like product form or a logo with a face (Kim and McGill, 2011), the present work examines a novel mechanism of anthropomorphism, specifically by attributing a mind to the brand. Mind attribution is a form of anthropomorphism because only humans have minds with emotion, intention, and cognition (Kozak, Marsh and Wegner, 2006). Even minimal cues can lead an individual to attribute a mind to an agent. For example, human-like form or movement can lead to mind attribution (Waytz, Grey, Epley and Wegner, 2010). Seeing intentional harm done to a robot also makes individuals more likely to attribute a mind to the robot (Ward, Olsen and Wegner, 2013). Importantly, mind attribution happens at an intuitive level, so that individuals may not be
consciously aware they are attributing a mind to a non-human agent (ibid.). In the case of a brand, they may not recognize that they have anthropomorphized it, nor that doing so affects their attitudes and behaviors toward the brand.

This work offers a number of important contributions to both the mind attribution and marketing anthropomorphization literatures. First, it considers a novel method of brand and product anthropomorphization—by mind attribution. This is not only of theoretical interest, as it uses minimal cues to communicate more extensive human-like qualities, but also of managerial interest, as such anthropomorphization methods may be easier to implement across various types of brand images. Second, it is the first work to examine a control attempt as an antecedent of anthropomorphism. Third, this work also shows that a firm action that people do not like can still have positive outcomes. Fourth, the outcome of this mind attribution, moral care and concern, is valuable to firms as it may protect them from damaging activities by consumers, such as negative word of mouth or even stealing as well as an increased likelihood by consumers to engage in behaviors supportive of the brand, such as recommending it to others.

THEORETICAL BACKGROUND

The theoretical underpinnings of this work are presented below. We draw on the mind perception and anthropomorphism literatures to explain how individuals perceive (or fail to perceive) that an agent or object in the environment has a mind and is thus a human. We then examine the role of mind attribution in the extant brand anthropomorphism literature to demonstrate that the method of anthropomorphism employed in this work is novel and that mind attribution is distinct from other types of anthropomorphism and deserving of further investigation.

Mind Perception

Successful interaction with agents in one’s environment depends on accurately determining whether those agents have intentions, whether the intentions are helpful or harmful to oneself, and whether the agent is capable of carrying out those intentions (Kozak, Marsh and Wegner 2006; Epley and Waytz, 2009; Waytz, Gray, Epley and Wegner, 2010). Because an intentional agent is more likely than a non-intentional agent to pose a threat—for example, a bear is more likely to attack a person than is a bear-shaped rock—some theorists believe that evolutionary pressures have resulted in a bias toward seeing agents as intentional (Guthrie, 1993, Rosset, 2008). Thus, people not only notice a bear in the environment but will also perceive a bear-shaped rock as an intentional agent until a closer investigation can be made.

The ability to correctly and rapidly attribute a mind to an agent and understand the contents of that mind is what enables an individual to communicate and coordinate with others (Epley and Waytz, 2009). However, understanding other minds is challenging, because access to them is inherently more ambiguous than access to our own minds (Gray, Young and Waytz, 2012). The best we can do is infer the presence and states of other minds based on an agent’s features and actions. Furthermore, attributing minds to others is a motivated process rather than an automatic one (Epley, Schroeder and Waytz, 2013). Thus, people may sometimes choose to see a mind, when saying their dog is ashamed of his behavior, and sometimes choose not to, when saying that out-group members experience less complex emotions than in-group members.

The process of perceiving minds in other humans has been the subject of extensive research in order to identify the circumstances and cues that lead a perceiver to conclude that a mind is present and if so, its mental states (Epley, Waytz, and Cacioppo, 2007; Epley and Waytz, 2009; Ward, Olsen and Wegner, 2013). The perceiver is likely to conclude that a target possesses a mind if there are indications that the target has both agency (the ability to carry out its intentions) and experience (conscious awareness of its emotions and experiences) (Gray, Gray and Wegner, 2007). Certain circumstances can also make mind perception more likely. For example, a liked target is more likely to be perceived as having a mind (Kozak, Marsh and Wegner, 2006). And furthermore, a perceiver who is motivated to understand, control, or
establish social connection with the target is also more likely to attribute a mind to it (Waytz, Gray, Epley and Wegner, 2010).

**Anthropomorphism**

Researchers are also interested in circumstances in which mind attribution goes awry because this offers important insights into the processes that underlie mind perception and social cognition. For example, in the case of dehumanization, observers fail to attribute a mind to a human target (Waytz, Gray, Epley and Wegner, 2010). Through dehumanization, individuals deny the full range of human emotions and experience to other human beings, allowing them to justify a variety of negative outcomes from unequal treatment to genocide.

In the case of anthropomorphism, observers infer the presence of a mind in a non-human target. Anthropomorphism has been defined as “going beyond behavioral descriptions of imagined or observable actions (e.g., the dog is affectionate) to represent the agent’s mental or physical characteristics using humanlike descriptors (e.g., the dog loves me)” (Epley, Waytz, and Cacioppo, 2007, p. 865). Earlier anthropomorphism research focused almost exclusively on the fact that it represents an error in mind attribution (Epley and Waytz, 2009). But more recent research has examined why perceivers make such an error in the first place and what we can learn about mind perception by understanding both anthropomorphization and dehumanization.

Epley, Waytz, and Cacioppo (2007) propose that, among other causes, applicability of anthropocentric knowledge can lead to the anthropomorphization of non-human agents. For example, an agent that moves in a human-like manner or has a human-like form is seen as human. Thus, a robot vacuum cleaner that seems to purposefully seek out and clean up dirt or a Corvette shaped like a woman’s hourglass figure appear more human-like. In marketing research, investigation of brand anthropomorphism has often relied on human-like product forms (i.e., car grilles that look like frowning faces or a bottle shaped like a human body, Aggarwal and McGill, 2007) or behaviors (i.e., the brand expresses an intention to serve as a partner or servant, Aggarwal and McGill, 2012).

**Moral care and concern**

Once an observer concludes that an agent possesses a mind, the observer is likely to attribute greater responsibility to the agent for the agent’s actions and extend moral care and concern to the agent (Epley and Waytz, 2009; Waytz, Epley and Cacioppo, 2010). An agent with a mind has intentions that direct his actions, making him responsible for both positive and negative actions (ibid.). Additionally, because the agent has a mind, he has awareness of his experiences and emotions (Epley and Waytz, 2009; Gray, Young and Waytz, 2012). This makes people more likely to extend moral care and concern to the agent. Thus, purposely harming an agent with a mind (a human) is a worse offense than purposely harming an agent with no mind (a tree). By extension, an agent that has been attributed a mind will be seen as more deserving of moral care and concern than an agent that has not been attributed a mind.

**Brand and product anthropomorphism**

A great deal of marketing research explores brand and product anthropomorphism that is communicated in a variety of manners. When anthropomorphism is communicated by the brand or product’s humanlike form (Aggarwal and McGill 2007) or face (Kim and McGill 2011), it may appear humanlike to consumers, but consumers may not take the further step of assuming it has a human mind and its attendant experiences and emotions. However, other types of marketing anthropomorphism research seem to require the consumer to attribute a mind to the brand or product (for example, brand personality, as will be discussed below). In many instances the assumption that a product or brand is like a person or has a humanlike mind may happen at an unconscious level, so that consumers are not aware of this assumption or its effects and are thus unable to correct for it. Yet very little marketing anthropomorphism
research explicitly measures mind attribution by consumers. And none of the research thus far has used mind attribution as a means of anthropomorphism, which is a contribution of this work.

**Brand intentions**

Research on brand intentions requires some level of mind attribution by consumers because the brand must have the mental capacity to form an intention. An article by Kervyn, Fiske, and Malone (2012) shows that consumers infer brand intentions and ability according to the same stereotype content model that governs inferences of humans. That is, the brand is assessed according to its competence and warmth, which influences downstream behavioral intentions. Anthropomorphized brands can also have specific intentions, such as being a servant or partner which leads to assimilative or contrast effects from primes (Aggarwal and McGill, 2011). Neither of these examples ask experimental participants to evaluate the extent to which the brand has a mind.

**Brand personality**

Similarly, brand personality research can also be argued to assume the presence of a mind. Just as intentions require a mind to form them, so personality requires a mind that “causes” the traits that lead to an observable personality. The foundational work in brand personality is by Aaker (1997) and shows that dimensions of brand personality correspond to the big five dimensions used to organize human personality: sincerity, excitement, competence, sophistication, and ruggedness. Subsequent work suggests that matches between the brand’s and consumer’s personalities lead to greater purchase likelihood and loyalty (Aaker, 1999).

Aaker, Fournier, and Brasel (2004) demonstrate that brand personality also influences how consumers respond to brand transgressions. That is, exciting brands are less likely to be punished for an error than sincere brands. Park and John (2010) show that for certain consumers brand personalities rub off on consumers, in a manner similar to the way in which trait priming occurs between people. Swaminathan, et al. (2009) examine which brand personality is preferred depending upon individual’s attachment style. The authors demonstrate that high anxiety, low avoidance individuals prefer sincere brands because they do not threaten the loss of a relationship.

**Outcomes of brand and product anthropomorphism**

When products and brands are human or humanlike, then we should expect outcomes that are similar to the outcomes of human interactions. Interactions among people elicit positive emotions such as love, trust, attachment, and loyalty and a significant body of marketing literature documents the antecedents and consequences of human–brand relationships. But human interactions also result in negative outcomes, such as blame for wrongdoing and violations of expectations, and there is empirical evidence to suggest that the same holds true for brands. We should also expect that, as with human interactions, brand interactions may both positive and negative outcomes.

**Positive outcomes**

The vast majority of marketing research on anthropomorphism examines the positive outcomes that result from considering the brand or a product a person. For example, consumers’ attachments with consumption objects can exhibit a range from non-liking (the absence of passionate feelings) to infatuation and intimacy (Shimp and Madden, 1988). Product love has been compared to one-sided love in human relationships (Whang et al., 2004) and argued to involve the integration of a loved object into the self (Carrol and Ahuvia, 2006).

Trust is another outcome of human–brand relationships (Chaudhuri and Holbrook, 2001). Delgado-Ballester (n.d.) makes an explicit case that brand trust is the object equivalent of interpersonal trust. An
autonomous car with a name, gender and voice has been shown to be trusted than a non-anthropomorphic one (Waytz, Heafner and Epley, 2014).

Negative outcomes

Considerably less attention has been devoted to the negative outcomes of anthropomorphism. But interactions with other humans do not yield universally positive results, so it is reasonable to expect that interactions with human-like brands and products should also sometimes result in negative outcomes. One exception is work by Aggarwal and Larrick (2012), which shows that when consumers have communal relationships with brands (rather than more transactional relationships), they are more sensitive to unfairness during the process of resolving a dispute, and may come to feel that the brand has violated important relationship norms if the resolution process is not handled properly. Another example of a negative outcome is work by Puzakova, Kwak and Rocereto (2013) that demonstrates that anthropomorphic brands are attributed greater blame for their wrongdoings because, like humans, they carry responsibility for their actions.

Nature of control

In this research, control attempt is defined as a command or instruction given by the firm to cause an individual to perform a specified action. It does not include efforts to persuade consumers or otherwise influence them by convincing them of the merit, appeal, or value of the command. Control attempts are efforts to make consumers act without regard for their intentions or wishes.

Not only is the content of the control attempt important, but so too is the tone with which it is delivered. With regard to content, the command must be specific (i.e., “place this bottle in a recycling container when you are finished with it”) rather than general (i.e., “recycle”) because an order that not only explains what to do but how to do it, is definitionally more controlling than an more vague injunction to act. Furthermore, the command must use direct and forceful language rather than polite and persuasive language (Kronrod, Grinstein, and Wathieu, 2011). Table 1 presents a list of requisite elements in order for a command to constitute a control attempt, as well as examples.
Table 1: Control Attempt Definition and Examples

<table>
<thead>
<tr>
<th>Definition</th>
<th>Additional requirements</th>
<th>More controlling</th>
<th>Less controlling</th>
</tr>
</thead>
<tbody>
<tr>
<td>A control attempt is a command to carry out a specific action that attempts to make consumers act rather than persuade or convince them.</td>
<td>The command must be specific.</td>
<td>“Recycle this bottle when you have finished drinking”</td>
<td>“Recycle!”</td>
</tr>
<tr>
<td></td>
<td>The command must be forceful and not employ persuasive or polite language.</td>
<td>“Tell us your thoughts on this photo.”</td>
<td>“Please tell us your thoughts on this photo.”</td>
</tr>
<tr>
<td></td>
<td>No inducement is offered to act.</td>
<td>“Tell us about your favorite [brand] outfit!”</td>
<td>“Tell us about your favorite [brand] outfit for a chance to win a $200 gift card.”</td>
</tr>
<tr>
<td></td>
<td>Whether the individual would carry out the action in absence of the command is irrelevant.</td>
<td>Commands that a person to do something they already planned to do, or would never do, could both be control attempts.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The scope of the command must be reasonable.</td>
<td>“Do not take photos in this [brand] store!”</td>
<td>“Do not take photos in [competitor brands’] stores!”</td>
</tr>
<tr>
<td></td>
<td>The command must not have direct financial benefits for the brand.</td>
<td>“Tell everyone how great our Facebook photo is!”</td>
<td>“Buy our products!”</td>
</tr>
</tbody>
</table>

**Consumer responses**

The definition of control attempt is not limited in terms of the consumer’s response to it. That is, whether the consumer actually complies with the control attempt is irrelevant. In reality, a consumer’s response to a control attempt could include complying with the request, ignoring it, or responding in a manner intended to register annoyance or displeasure. For example, a women’s clothing retailer may ask customers to post to Facebook a photo of a new outfit from the store. Some consumers would comply with this request and post a photo, many would probably ignore the request entirely, and some would respond by posting a photo of an extremely unattractive outfit. Discerning between these three responses cannot be done with certainty without asking consumers their intentions (did the person who posted a photo of the unattractive outfit have bad taste or intend to express displeasure with the request?). However, for the purposes of this research, the important part is that the brand is observed trying to control others, which leads to mind perception, and thereby anthropomorphism and moral care and concern.

Similarly, whether the individual would have performed this behavior in absence of the control attempt does not matter. In fact, reactance theory suggests that it is the loss of choice that elicits reactance, rather than the desirability of the action, so that even a desired option can become less appealing when other choices are taken away. In Brehm’s (1966) example, if a consumer goes to the vending machine seeking a particular product, but the vending machine malfunctions, dispensing that same product before the consumer selects it, desire for and liking of the product will be reduced. Thus, a command to perform an action could be expected to reduce the appeal of an action that a consumer intended to carry out as well as one he did not.

**Related literatures**

The control attempt construct is related to, but distinct from, the construct of power. Power is defined as the possibility of influencing others (Handgraaf et al., 2008; Bacharach and Lawler, 1981; Kelley and Thibault, 1978). Such a definition suggests that an agent only has power to the extent that he
successfully influences others. However, for the purpose of mind attribution, it only matters that a consumer observes a control attempt, not whether he complies with it. Since the present work does not differentiate between attempting to influence others and actually influencing them, it is broader than the construct of power.

Control attempts also differ from persuasive communications (Petty, Uvnava and Strathman, 1991) in that they do not rely on the number, type, or quality of arguments in order to convince a person to act. An instruction paired with an inducement to act (i.e., a 10 percent discount for providing an email address) would be a persuasive communication because it offers a reason for the individual to carry out the action. In this case, the consumer would likely attribute his or her behavior to a desire to obtain the inducement, rather than the firm’s ability or intent to control him.

Finally, the scope of the control attempt is also important. In this research, control attempts are limited to legitimate requests. For example, a firm could reasonably expect to control a consumer who is on its property. Therefore, forbidding shoppers from taking photos in the store is a legitimate request, although it may be seen as controlling nonetheless. Illegitimate requests, for example that consumers cannot take photos in some other store, are likely to be seen as bizarre rather than controlling, and thus should not lead to the hypothesized effects.

**HYPOTHESES**

Based on the literature examined above, this research will test five hypotheses regarding the effects of control attempts by brands. Prior work has established that people rely on particular cues when determining whether an agent has a mind or not. An agent that behaves in a human-like manner is likely to be attributed a mind. Only people try to control others, therefore a control attempt is likely to be interpreted as human-like behavior. Additionally, the intention to control suggests the presence of a mind to form this intention. Mind attribution is similar to anthropomorphism because it suggests that the agent has intentions and goals, just as a human does. But mind attribution goes beyond anthropomorphism because it suggests that an agent not only looks like a human, but shares a human mind.

The first hypothesis holds that explicit evaluations of a control attempt are likely to be evaluated negatively, since most people find it unacceptable to be controlled or manipulated by others. The expectation of personal autonomy is strongly held by most adults (Jensen, 1995), and a control attempt infringes or attempts to infringe on this right. Individuals who feel that their choices are being constrained are likely to experience reactance (Brehm, 1966) as well as other negative emotions directed toward the control attempt.

The second hypothesis holds that a control attempt, as defined in this research, will cause the brand to seem more anthropomorphic. Only humans seek to control others, and furthermore, an intention to control strongly suggests the presence of a mind that can form such an intention. Thus, a control attempt will seem like humanlike behavior, and humanlike behavior is one antecedent of mind attribution (Epley, Waytz, and Cacioppo, 2007; Epley and Waytz, 2009; Waytz, Morewedge, et al., 2010; Waytz, Grey, Epley and Wegner, 2010).

The third hypothesis holds that when a brand engages in a control attempt, the consumer will grant it moral care and concern, which is defined as a negative evaluation of or response to intentional injury or damage to the firm and increased willingness to engage in activities helpful to the brand. Humans experience suffering and distress when harm is done to them because they have mental capacities for self-awareness and emotional experience (Grey, Young, and Waytz, 2012; Ward, Olsen and Wegner, 2013). While harming another human is bad, intentionally harming another human is worse (and criminal, in many cases). The same is true of a brand that is attributed a mind. Because such a brand now has the (inferred) capacity for self-awareness and emotional experience, doing it intentional harm is more egregious than
doing intentional harm to a brand that is not human-like and that has no mind. An anthropomorphic brand will be worthy of moral care and concern, just as a human is.

Formally stated, the first three hypotheses are as follows:

H1: Control attempts by a brand will be evaluated negatively by consumers.

H2: Brands that attempt to control are viewed as more anthropomorphic.

H3: More anthropomorphic brands elicit greater moral care and concern.

See figure 2 for a conceptual model of these hypotheses.

In order to further refine the understanding of the theorized relationship, we explore boundary conditions under which the proposed effect may be both intensified and attenuated. We propose that two variables—agent detection ability and brand reputation—will moderate the effects of control attempts on brand anthropomorphism and moral care and concern. These variables offer insight into when individuals might be more or less likely to infer the presence of other minds, which in turn makes them more or less likely to see a brand as anthropomorphic and deserving of moral care and concern.

Hypothesis 4 concerns the moderating role of agent detection ability. Individuals whose ability to detect other agents has been enhanced (Zwickel 2009; Abell et al., 2000; Klein, Zwickel, Prinz, & Frith, 2009) should be less likely to attribute a mind to a brand simply because it engages in a control attempt. This means that they should be less likely to express greater moral care and concern for the brand. Thus, hypothesis 4 holds that when agent detection ability is enhanced, consumers will be less likely to attribute a mind to a brand and extend moral care and concern to it, regardless of whether the brand engages in a control attempt. When agent detection is unchanged, mind attribution and moral care and concern will proceed in the same manner as predicted in hypotheses 1 through 3.

Hypothesis 5 holds that a negative brand reputation will reverse the previous pattern of results. When the brand behaves in a way that is harmful to the consumer (i.e., raising prices to maximize profits), consumers will infer that the brand has harmful intentions and thus a mind despite the lack of control.
attempt. Therefore consumers will also extend greater moral care and concern to the brand than in the case where there is no information about the brand’s reputation. However, when a brand behaves in a way that is harmful to the consumer and also engages in a control attempt, it will appear to be less human-like because it violates the norms that govern most interpersonal interactions (Reeves and Nass 1996). The combination of negative reputation and control attempt will therefore result in less mind attribution and moral care and concern than when the brand has a neutral reputation and engages in a control attempt.

Formally stated, hypotheses four and five are as follows:

H4: Agent detection ability moderates the proposed relationship such that enhanced agent detection decreases the likelihood of brand anthropomorphism overall, which attenuates the relationship between a control attempt and elevated anthropomorphism and moral care and concern. Thus, individuals for whom agent detection abilities are enhanced will be less likely than individuals for agent detection is unchanged to anthropomorphize a controlling brand and extend it more care and concern.

H5: Brand reputation moderates the proposed relationship such that a negative brand reputation will increase the likelihood of brand anthropomorphism, and thus moral care and concern in absence of a control attempt. However, in the presence of a control attempt, a negative brand reputation will decrease the likelihood of brand anthropomorphism and thus moral care and concern for the brand.

EXPERIMENTS

Two experiments provide evidence of the relationship between controlling brands and anthropomorphism, and moral care and concern for the brand. (A two additional experiments are in the data collection stage.)

Experiment 1

The purpose of experiment 1 was to provide preliminary evidence of the hypothesized relationship between control attempts, ad evaluations, and moral care and concern for the brand.

Participants were 92 undergraduate students who were randomly assigned to the control attempt present (n=47) or control attempt absent (n=45) condition. A cover story explained that Barnes & Noble was testing the effectiveness of a new advertisement. In both conditions, the text included the language “Barnes & Noble is offering special customers unprecedented deals during the month of June! Incredible savings on almost everything in our stores and online.” In the control attempt condition, it also included the language “You are required to forward this email to at least two friends.” In the brand without a control attempt, this request was worded more politely: “Please help us spread the word about these great deals by forwarding our email to at least two friends.” See Appendix 1 for sample stimuli.

Participants then answered survey questions regarding their attitudes toward the brand and items about moral care and concern for the brand. Manipulation check items regarding the controlling nature of the brand were not administered until the end of the experiment in order to avoid influencing responses to other items.

Manipulation check

Three manipulation check items (α=.708) included Barnes & Noble “seeks to control people,” “intended to tell me what to do,” and “I would feel I had little choice but to obey Barnes & Noble’s instructions in the email.” An ANOVA with the manipulation check items as the outcome and the condition as a predictor was significant (F(1, 91) = 9.354, p < .01). As intended, participants who saw a control
attempt by the brand evaluated it as more controlling than participants who did not see a control attempt ($M_{controlling} = 3.291, M_{not controlling} = 2.578, p < .01$).

**Brand and ad attitudes**

Attitudes toward the brand and ad were measured with 5 items ($\alpha = .882$) that include how much participants enjoyed the wording of the ad, its persuasiveness, and their intentions to visit the brand’s web site, store, and intentions to make a purchase. An ANOVA with these items as the dependent variable and condition as the predictor was significant ($F(1, 91) = 8.905, p < .01$). As predicted, participants who did not see a control attempt by the brand had more positive attitudes than did participants who saw a controlling brand ($M_{controlling} = 3.298, M_{not controlling} = 4.187, p < .01$).

**Moral care and concern**

Moral care and concern for the brand was assessed with five items regarding how upset the participant would feel: witnessing someone deface the brand’s sign, steal from the brand, slander the brand, and being asked for a donation to help the brand stay in business, and hearing an employee describe embezzling from the brand (all items reverse coded except for donation item, $\alpha = .647$). An ANOVA with moral care and concern items as the dependent variable and condition as the predictor was significant ($F(1, 91) = 4.930, p < .05$). As predicted, participants who saw the brand engage in a control attempt expressed greater moral care and concern for the brand than did participants who saw a non-controlling brand ($M_{controlling} = 5.149, M_{not controlling} = 4.862, p < .05$).

The results of experiment 1 suggest that consumers have greater moral care and concern for a controlling brand than for a non-controlling brand. This is true despite the fact that participants have negative attitudes toward the brand’s control attempt. In experiment 2, we attempt to replicate this finding with an alternate manipulation of a control attempt and a different brand. This study includes a measure of brand anthropomorphism and an expanded measure of moral care and concern for the brand.

**Experiment 2**

There were several main goals for experiment 2, in addition to replicating the findings of the first two studies. First, it uses a different brand and product category to show the generalizability of the effect. This study also uses an alternate manipulation of control attempt that is somewhat more subtle, and thus has greater naturalism than those of the previous experiments. Second, the mediating role of anthropomorphism in the proposed relationship is examined. Third, the measure of moral care and concern is expanded to encompass not only concern with intentional harm being done to the brand but also a willingness to engage in behavior supportive to the brand.

In both conditions, the stimulus was a Twitter post ostensibly from Chili’s, a national casual dining restaurant. In the non-controlling condition, the tweet read, “Please write a description of the best food you ever ate at Chili’s. You can tag it #bestfood #Chilis #mmm.” In the controlling condition, the tweet read, “You should tweet a detailed description of the best food you ever ate at Chili’s. You need to tag it #bestfood #Chili’s #mmm.” Participants were asked to generate their own tweet in response to Chili’s post. However, in keeping with the definition of control attempt used in this research, no further analysis was conducted on whether they complied because consumers only need to observe a control attempt, not comply with it, in order for mind attribution to occur. See Appendix 2 for the sample stimuli.

A pre-test was conducted to ensure that the control manipulation worked as intended. Thirty-nine participants from an online panel completed the pre-test in exchange for a small payment. They answered a three-item scale about the extent to which Chili’s “was seeking to control me”, “intended to tell me what to do”, and “I had no choice in obeying” ($\alpha = .59$). An ANOVA with the manipulation check items as the outcome and condition type as predictor was not significant ($F(1, 39) = .25, p < .61$). However, the brand
in that engaged in a control attempt was perceived as somewhat more controlling (\(M_{\text{controlling}} = 5.74, M_{\text{not controlling}} = 5.67\)). The lack of a significant difference in perceptions of control is likely due to the more subtle difference between the control and non-control versions of the stimulus.

Participants in the main study were 111 individuals from an online research panel who participated in exchange for a small monetary payment. Twelve participants were excluded who spent fewer than 15 seconds viewing and responding to the stimulus. Thus, 99 participants were retained for the analyses who were randomly assigned to either the controlling (n = 44) or non-controlling condition (n = 54). Because food preferences (religious and dietary restrictions) and other lifestyle elements (socioeconomic class, marital status) are likely to influence decisions about which restaurants to patronize, it was necessary to control for the effects of consumers’ existing patronage of and attitude toward the restaurant. Thus, participants also answered two items about their prior patronage of Chili’s and whether patronizing the brand impresses others. These items were averaged and included as a covariate to account for participants’ existing attitudes toward the brand. Dependent variables and demographic data were collected as well.

**Anthropomorphism**

An 11-item anthropomorphism scale (\(\alpha = .95\)) was administered (see Appendix 3 for a list of items). An ANCOVA with anthropomorphism as the dependent variable and control attempt condition as the factor was significant (\(F(1, 98) = 10.601, p < .01\)). As predicted, participants who saw the brand engage in a control attempt rated the brand as more anthropomorphic than did participants who did not see a control attempt (\(M_{\text{controlling}} = 4.33, M_{\text{not controlling}} = 3.52, p < .01\)). Existing attitudes toward the brand were included as a covariate and were significant (\(F(1, 98) = 16.78, p < .001\)).

**Moral care and concern**

The moral care and concern scale from previous studies was expanded to include behavior supportive to the brand. This resulted in a 13-item scale (\(\alpha = .82\)). A representative item tapping response to intentional harm done to the brand asked participants how badly they would feel “witnessing someone vandalizing a Chili’s sign.” A representative item tapping willingness to engage in behavior supportive to the brand was “How likely would you be to write a positive review of the brand in an online forum?” (See appendix 3 for a list of all scale items.) An ANCOVA with this scale as the dependent variable and control attempt as a predictor was significant (\(F(1, 98) = 4.74, p < .05\)). As predicted, participants in the condition in which the brand engaged in a control attempt were more likely to engage in supportive behavior than participants who did not see a control attempt (\(M_{\text{controlling}} = 4.37, M_{\text{not controlling}} = 4.37, p < .05\)). Existing attitudes toward the brand were included as a covariate and were significant (\(F(1, 98) = 31.46, p < .001\)).

**Mediation**

Mediation was tested using model 4 of the PROCESS macro (Hayes 2013). A bootstrapping procedure revealed that the mean indirect effect of control attempts on moral care and concern through anthropomorphism was positive (.11) and the confidence interval excluded zero (.0039, .3140). Baron and Kenny’s (1986) procedure likewise provided support for the mediating role of anthropomorphism. In the first regression equation, the presence of a control attempt significantly predicted the tendency to engage in behavior supportive of the brand (\(\beta = 2.18, t(96) = 3.12, p < .05\)). In the second regression equation, control attempts significantly predicted anthropomorphism (\(\beta = .87, t(96) = 3.12, p < .01\)). In the third equation, when control attempts and brand anthropomorphism were both entered into the equation to predict moral care and concern, anthropomorphism remained significant (\(\beta = .13, t(98) = 2.33, p < .05\)). However, control attempt was no longer significant (\(\beta = .22, t(98) = 1.41, p < .16\)), suggesting full mediation. Brand evaluation was included as a covariate in this model.
Alternative explanations

A possible alternative explanation for this result is that the control attempt stimulus was more involving than the stimulus without the control attempt and may have prompted greater thought about the brand in that condition. However, an ANCOVA with time spent on the stimulus page as the dependent variable and condition as a factor was not significant \( F(1, 99) = 1.67, p > .19 \), suggesting the level of involvement did not differ by condition. Existing attitudes toward the brand were included as a covariate in this analysis but were not significant \( F(1, 98) = .53, p < .47 \).

Another possible alternative explanation is that participants anthropomorphize the brand because it behaves in an unexpected way, rather than because participants attribute a mind to the brand. There is evidence that agents that behave unpredictably are more likely to be anthropomorphized (Caporael, 1986; Epley, Waytz, and Cacioppo, 2007; Waytz, Morewedge, Epley, Monteleone, Gao and Cacioppo, 2010). While it is true that some brand control attempts may make the brand seem to violate expectations, other control attempts should not strike consumers as surprising. A two items regarding whether the control attempt was unexpected were also administered (“Chili’s request was unexpected” and “This type of Twitter post is uncommon”). However, an ANCOVA with the unexpectedness ratings as the dependent variable and condition as a factor was not significant \( F(1, 99) = 3.48, p > .06 \), suggesting that unexpectedness did not differ by condition. Existing attitudes toward the brand were included as a covariate but were not significant \( F(1, 98) = .30, p < .58 \).

In summary, participants who were exposed to a brand that engaged in a control attempt evaluated the brand as more humanlike. They also expressed greater moral care and concern for the brand and greater intentions to engage in behavior supportive of the brand. Mediation analyses suggest that brand anthropomorphism mediates this relationship. Importantly, the relationship between control attempts, anthropomorphism, and moral care and concern and supportive behaviors held even though the control attempt language was not worded as strongly as in study 1.

Experiments 3 and 4, which are still in the data collection process, will examine boundary conditions on the proposed relationship.

Experiment 3

Experiment 3 relies on a 2 (agent detection ability: enhanced vs. unchanged) x 2 (control attempt: present vs. absent) design to test hypothesis 4. In order to manipulate agent detection ability, participants are randomly assigned to view one of two 40-second animated video clips previously established in the literature as effective manipulations mind attribution (Castelli, Happé, Frith, & Frith 2000). In the enhanced condition, the video shows one triangle trying to coax another triangle out of the box and then dancing with it. The video in the high condition has been shown to lead to enhanced agent detection abilities as individuals try to understand the shapes’ actions and intentions (Zwickel 2009; Abell et al. 2000). In the unchanged condition, the video shows two triangles circling a box in a random fashion. A cover story instructs participants that the video is from a new software being evaluated by researchers in the informatics department. For consistency with the covers story, participants must describe the contents of the video including any problems with its quality.

Then, ostensibly as part of a different study, participants are exposed to a Facebook post by the clothing brand the Gap. The accompanying image is from the Coca-Cola Facebook post in Figure 1. In the control attempt present condition, the wording reads, “You should recreate our hashtag with your smiling face and your favorite Gap outfit. You need to show the world why Gap #MakesMeHappy.” In the control attempt absent condition, the wording reads, “Will you re-create our hashtag with your smiling face and your favorite Gap outfit? You can show the world why Gap #MakesMeHappy.” Following administration of the stimuli, DVs, manipulation check, and demographic items are collected.
Experiment 4

Experiment 4 relies on a 2 (brand reputation: negative vs. normal) x 2 (control attempt: present vs. absent) design to test hypothesis 5. Participants assigned to the brand reputation negative condition read a 120-word passage that describes how Gap managers have recently raised clothing prices because a new compensation policy allows them to take home excess profits in addition to their regular salaries. In the brand reputation normal condition, participants read a 120-word passage that describes the Gap’s history and target market. The control attempt is identical to the one used in experiment 3. Participants then complete the same DV, manipulation check, demographic items as in prior experiments.

GENERAL DISCUSSION

The experiments presented above show evidence that brands that engage in control attempts are evaluated as more anthropomorphic and more deserving of moral care and concern from consumers. This is the case despite the fact that the control attempt is evaluated negatively. The studies described above make use of different brands, different product categories, and differing manipulations of the control attempt construct, which is suggestive of convergent validity. This work also rules out several alternative explanations, such as demand effects, involvement, and unexpectedness. This work offers theoretical contributions to the mind perception and anthropomorphism literatures more generally, as well as brand anthropomorphism more specifically. It also has useful managerial insights.

Theoretical contribution

A growing body of marketing research suggests that brands are seen as agents. For example, the brand relationship literature assumes the brand may be a relationship partner; the brand personality literature assumes the brand may possess personality traits. Yet evidence is scant as to how or why this is possible. This research helps to fill this gap by demonstrating that mind attribution is a mechanism of seeing the brand as a human-like agent. Research in this area often focuses on more explicit means of anthropomorphism in which product packaging or other marketing language is adopted that suggests a human-like form or other human-like qualities (such as having a face, or being described as a family; Aggarwal and McGill, 2007; Kim and McGill, 2011). As Chandler and Schwarz (2010) have pointed out, the outcomes generated by less subtle forms of anthropomorphism may be suspect because consumers may perceive some communicative intent when a brand is rendered with human-like qualities. Specifically, consumers may assume that when a firm depicts the brand in a human-like manner, it is because it wishes to communicate the brand has some human-like qualities. However, this work circumvents this issue by relying on language or actions to suggest anthropomorphism. This is a quite minimal cue and it suggests that mind perception, and thus brand anthropomorphism, can be an implicit conclusion. This finding is also interesting in that, despite relying on a less explicit form of anthropomorphism (i.e., less explicit than a human form or face), mind attribution goes beyond these explicit forms to suggest a greater degree of humanness: not only does the brand seem human-like, but more specifically, it possesses a human-like mind.

This work is also the first to show that a control attempt is an antecedent of anthropomorphism. Given that the work on interpersonal compliance (Cialdini and Trost, 1998) and reactance (Brehm, 1966) identify mainly drawbacks of controlling behavior, the finding that a control attempt can lead to cooperative and supportive responses from consumers is novel. The positive effects of control attempts in particular setting may derive from the fact that consumers can readily decline to comply (versus person-to-person control attempts that may be awkward or unpleasant when the target does not comply). However, the effects of the control attempt remain regardless of compliance.

Additionally, this work follows the recommendation of Waytz and colleagues (2010), who have argued that the study of social cognition should not be limited to the investigation of how other people are understood, but to how other agents are understood. Investigating circumstances under which we are tempted to grant humanity to non-persons (anthropomorphizing a brand) and deny humanity to real people...
(dehumanization) provides important insights that cannot be gleaned from a more traditional approach to social cognition.

**Managerial contribution**

Many firms are already engaging in the control attempts examined in this research in their social media marketing efforts; therefore it is important to understand their effects. The anthropomorphism that arises from mind attribution may be of greater managerial interest than more traditional approaches that rely on human form or face. This is because it does not require firms to make alterations to product packaging or brand image in order to benefit from the effects of anthropomorphism. This work shows that even minor changes to language (i.e., “you can” vs. “you must”) can result in significantly greater mind attribution and moral care and concern for the firm.

Additionally, the outcome of control attempts—moral care and concern for the brand—may be quite valuable to firms. In an era in which information is transmitted online at lightning speed, often before facts are fully available, many firms have been the victim of hoaxes or intentional misinformation. Consumers who are less willing to spread negative information about brands would therefore be a worthwhile aim for brands. Finally, firms and marketers go to great effort to find clever ways to influence consumers, in order to avoid being perceived as controlling. However, this research suggests that the dangers of seeming controlling may have been overstated.

**Limitations and Future Research**

The experiments presented in this paper demonstrate the relationship between control attempts, mind attribution, and moral care and concern among only a small number of product categories and brands. It is possible that other types of product categories, and brand images and personalities will not demonstrate the hypothesized effects and this is an area for future research. Furthermore, the experiments in this paper were conducted solely with North American participants. Participants from other cultures may have different responses to control attempts, which is also an area for future research. Expanding this line of inquiry to more direct measures of mind attribution (using brain imaging technology) would also be valuable.

The notion that consumers can be encouraged to attribute a mind to a brand, and thus see it as more humanlike and more deserving of moral care and concern offers a number of future directions for research. Control attempts by the brand are only one such means of encouraging mind attribution. It is likely that there are other brand traits (e.g., brand personality, product type) and individual differences (e.g., consumer culture, age) that could likewise lead to mind attribution. Another interesting issue for future research is how the type of command influences the consumer response. Do consumption-related commands (i.e., “like a picture of our product”) differ from pro-social commands (i.e., “like our charity”)? Finally, what are the effects of not just mind attribution, but the attribution of a particular type of mind? For example, how does having a male or female mind or a benevolent or malevolent mind influence perceptions of or moral care and concern for the brand?
REFERENCES


APPENDIX 1: EXPERIMENT 1 STIMULI

Control attempt present

Barnes & Noble is offering special customers unprecedented deals during the month of June! Incredible savings on almost everything in our stores and online. You are required to forward this email to at least two friends.

Control attempt absent

Barnes & Noble is offering special customers unprecedented deals during the month of June! Incredible savings on almost everything in our stores and online. Please help us spread the word about these great deals by forwarding our email to at least two friends.

APPENDIX 2: EXPERIMENT 2 STIMULI

Control attempt present

You should tweet a detailed description of the best food you ever ate at Chili's. You need to tag it #bestfood #Chilis #mmm

Control attempt absent

Please tweet a description of the best food you ever ate at Chili's. You can tag it #bestfood #Chilis #mmm
APPENDIX 3: MEDIATOR AND DEPENDENT VARIABLE MEASURES

Anthropomorphism items

Agency dimension
- Can picture the kind of person this brand would be (Kim and McGill 2011)
- Brand can influence the outcome of various situations (Ward, Olsen, Wegner 2013)

Experience dimension
- Brand seems almost to have intentions (Kim and McGill, 2011)
- Brand has a personality (Ward, Olsen, Wegner 2013; Epley, Waytz, Akalis, and Cacioppo 2008)
- Brand is conscious of people and the world around it (Ward, Olsen, Wegner 2013)
- Brand has a conscious will (Epley, Waytz, Akalis, and Cacioppo 2008; Kim and McGill, 2010)
- Brand is aware of its emotions (Epley, Waytz, Akalis, and Cacioppo 2008)
- Brand is able to plan its actions (Ward, Olsen, Wegner 2013)
- Brand understands right vs. wrong (Ward, Olsen, Wegner 2013)
- Brand understands the thoughts and emotions of others (Ward, Olsen, Wegner 2013)
- Brand is conscious of itself (Ward, Olsen, Wegner 2013)

Moral care and concern items

Emotional response to intentional harm to the brand
- How would you feel in the following situations?
  - Witnessing someone vandalizing [brand’s] sign
  - Seeing someone steal from [brand]

Willingness to engage in behavior supportive of the brand
- If you overheard a [brand] employee explaining how he or she pocketed cash payments from customers, how likely would you be to find a way to report this information to [brand]?
- How likely would you be to recommend this brand to your friends and family?
- How likely would you be to write a positive review of this brand in an online review forum?
- How likely would you be to describe negative things you’ve heard about the brand to acquaintances you overhear complaining about the brand?
AESTHETICS-INDUCED ETHICS: CAN AESTHETIC ENVIRONMENTS FOSTER ETHICAL BEHAVIORS?

Cong (Clark) Cao and Martin Reimann, University of Arizona

INTRODUCTION

Consumer’s ethical behavior is drawing researcher’s increasing attentions presumably due to the profound implication of this topic. Take piracy for example, according to the 2013 BSA Global Software Survey, the global rate of unlicensed use is as high as 43%, resulting in $62.7 billion loss of commercial value. Also, consumer morality has important influences on responsible buying and consumption, including eco-friendly product use, disposal and recycling behaviors, waste reduction, and so on. This background calls for greater research attention on understanding and encouraging consumer ethical conducts.

The proposed research examines the question of whether aesthetic environments (e.g., beautiful artwork in the work place or an appealing interior design of the office space) can influence ethical behaviors among individuals. In other words, are individuals in an aesthetic environment more likely to behave ethically than individuals in an unaesthetic or neutral environment? In particular, our research aims to shed new light on the intriguing question of how to improve ethical understanding and behavior, which is at the core of the goals and objectives of the “beauty is good stereotype” study.

CONCEPTUAL BACKGROUND AND HYPOTHESIS

Our research builds on the philosophical notion that aesthetics and ethics are related with each other. For example, Railton (1998) posited that aesthetic and ethical values are similar in that “both aesthetic and moral value are grounded in intrinsically desired states” (pp. 98-99). Further, Gaut (2007) argued that a crucial merit of art is its ability to convey morality, thus suggesting a possible relationship between aesthetics and ethics.

Also, psychologists have long been examining what is called “beautiful is good” stereotype. Dion, Berscheid, and Walster (1972) found that attractive individuals are perceived as to possess more favorable traits. Similar findings were also reported by Dermer and Thiel (1975) and Lorenzo, Biesanz, and Human (2010). However, the above studies focus mainly on how physical attractive individuals are perceived as also possessing such desirable traits as being more sociable or professionally successful, and do not provide a direct connection between aesthetics and ethics.

Along a similar line, the idea that aesthetics and ethics are closely related has recently received initial empirical support from the neurosciences. For example, Tsukiura and Cabeza (2011) discovered shared activations of the same brain areas for both facial attractiveness and moral goodness. Relatedly, Avram et al. (2013) observed mutual activation of the same brain areas for both beautiful poems and moral statements. These conceptual and empirical observations both point to a possible association between aesthetics and ethics. However, prior research has not yet answered the important question of whether aesthetic environments could possibly foster ethical behavior in individuals. It is the goal of this proposal to provide insight into the aesthetics—ethics relationship.

The terms aesthetics was coined by Baumgarten in 1735, based on the Greek word aisthēsis (i.e., perception from the senses, feeling, hearing, and seeing), and he subsequently defined aesthetics as “perfection of sensate cognition” (cf. Osborne 1979, p. 136). Building on this idea, Reimann et al. (2010) found that aesthetic objects can generate reward responses in the brain, implying that aesthetics can fulfill individuals with joy and desire upon viewing or experiencing aesthetic objects. Since desire is also at the core of ethics (Railton 1998), aesthetics and ethics may share an intrinsically motivating basis such as the quest to achieve higher-order self-actualization (Maslow 1943). Because aesthetic environments can have
the power to create perfection of sensate cognition (e.g., by being subjected to beautiful paintings or by viewing stunning architecture), we hypothesize that such environments increases the likelihood of ethical behaviors because the opportunity to engage in unethical behaviors would greatly disturb the sensual perfection individuals’ receive from aesthetics (which is an undesirable state). In other words, we hypothesize that once an individual is in the state of perfect sensual cognition, engaging in lowly, unethical behaviors would diminish such perfection, which is why the unethical behavioral becomes less desirable. More formally,

H1: when exposed to aesthetic environments, individuals will behave more ethically than when exposed to unaesthetic environments.

Our account builds on the recent discovery that ethical behavior can be primed subconsciously (Welsh and Ordóñez 2013). In that sense, aesthetics in the work place aims at priming individuals into behaving more ethical.

In what follows, we will test our hypothesis in two experiments.

**EXPERIMENT 1**

**Design**

In Experiment 1, we adopted and adjusted the matrix task from Mazar, Amir, and Ariely (2008) in which participants were asked to find two numbers that added up to 10 in each of the 12 matrices. Each matrix consists of 12 cells, with each of them containing one number with two decimal digits (e.g., 7.02). 397 Amazon Mechanical Turk workers participated in the study and they were told that they would receive an additional $0.10 for each matrix that they reported as successfully solved (i.e., successfully found the two numbers that add up to 10). For each matrix, participants were given only 15 seconds, a fairly short time limit according to a pretest (N = 91).

Since the participants were required to only report whether or not they found the numbers without indicating what those numbers were, there was a chance to cheat. On the other hand, the time limit and momentary incentives created motivation to cheat, in that an easy means to earn the bonus under such a strict time limit was simply to cheat. The tendency to cheat was captured by a total of five insolvable matrices out of all 12 matrices. Specifically, the five matrices were ones in which no two numbers could add up to 10. Therefore, if participants reported that they found the two numbers, this report could be treated as evidence of cheating.

Participants were randomly assigned to one of the two conditions. In the beauty condition participants worked on matrices with a beautiful design, whereas participants in the ugly condition worked on the identical questions on matrices with an ugly design (See Appendix A for an example of the matrices). We expect that participants will cheat more in the ugly condition than in the beautiful condition.

**Manipulation Check**

The perceived beauty or ugliness was measured by a 5-point scale anchored at 1 = “very ugly” and 5 = “very beautiful”, and the beautiful design was perceived (M = 3.88) as more beautiful than the ugly design (M = 1.71) significantly, t(395) = -23.34, p = 0.00.

**Results**

Because participants could spend different time (but less than 15 seconds per matrix) on the tasks, to capture the overall exposure level to the beautiful/ugly stimuli we use “cheatings per minute” as the dependent variable. Specifically, we divide the times of cheating for the 5 insolvable matrices by the total time spent on the 5 questions to obtain how many times a participant cheated per minute. Also, because the
results are highly skewed (skewness = 1.46), to avoid violating the normality assumption of the statistic methods we employed logarithmic transform to normalize the data.

Also, as aesthetic experiences are highly subjective (Palmer, Schloss, and Sammartino 2013), we also need the participants to have an unambiguous aesthetic attitude towards the designs of the matrices to reduce the noise due to aesthetics irrelevant considerations – in other words, we need the participants to perceive the design as either beautiful or ugly (we will loosen this condition in Experiment 2). Alwin and Krosnick (1991) observe that respondents to an attitudinal scale are more likely to place them to the middle point (if there is one) when they have ambiguous attitudes or no attitude at all. In other words, the middle point of the scale helps us to identify the ambiguous participants. Therefore, we exclude participants who reported 3 on the 5 point scale from the sample, leaving 348 participants for analysis.

An independent t-test demonstrates that participants in the beautiful condition indeed cheated less than participants in the ugly condition with $M_{\text{beautiful}} = 0.71$, $M_{\text{ugly}} = 0.87$, $t(346) = 1.727$, $p = 0.042$ (one-sided). This means that before the logarithmic transformation, participants in the ugly condition cheat 0.35 time more per minute than participants in the beautiful condition.

**Discussion**

In Experiment 1 we provided preliminary support for the hypothesis that aesthetic stimuli lead to more ethical behaviors than do unaesthetic stimuli. Specifically, when exposed to a beautiful design, participants cheated less on a matrix cheating task than those when exposed to an ugly design did.

This experiment, however, requires participants to form an unambiguous attitude towards the aesthetic designs. In what follows, we will replicate the found effect in a more controlled lab setting and loosen the requirements regarding unambiguous attitudes employing a different cheating task.

**EXPERIMENT 2**

**Design**

In Experiment 2, participants were required to solve nine anagrams in a lab, following the methodology of an established cheating task (Hershfield, Cohen, and Thompson 2012). 56 undergraduate students from an American public university participated the experiment for additional credits and a $1 payment.

Participants were informed that for each anagram that they solve successfully, they would receive an additional 50 cents as bonus. Participants were also told that they must complete the nine anagrams in order and could only move to the next anagram if they had answered the previous one. Unbeknown to the participants, however, was that among all nine anagrams, the second and seventh were intentionally designed to be unsolvable. Therefore, if a participant reported having solved more than 1 anagrams, this report would serve as a signal of cheating once. Similarly, a participant must have cheated twice if he or she reported having solved more than 6 anagrams.

Similar to Experiment 1, participants were randomly assigned to one of two conditions: in the aesthetic condition, participants solve the anagrams on an aesthetic background, whereas in the unaesthetic condition, participants solve the same anagrams on an ugly background (see stimuli in Appendix B).

Once participants were done with the anagrams, they were asked to report the number of anagrams they had solved and then take the corresponding amount of money from an ostensibly unsupervised box (i.e., 50 cents times the number of anagrams solved). Participants’ reports of solved anagrams serves as dependent variable. Again, due to the design of the task, participants could not possibly earn more than $1.50 without cheating (i.e., the $1 participation reimbursement plus 50 cents for one solved anagram) since
the second anagram was unsolvable and participants were not allowed to move to the next one until the first one is solved. Thus, any report of more than one solved anagram would be considered cheating and, thus, unethical behavior. We hypothesized that when solving anagrams on an aesthetic background, participants will be less likely to cheat than when solving anagrams on unaesthetic background.

**Manipulation Check**

We pretested the two backgrounds to be either aesthetic ($M = 7.00$) or ugly ($M = 3.13$), $t(14) = 9.57, p < .001$ using another set of participants ($N = 16$) from the same subject pool. This results suggested that on average the backgrounds are perceived as either being beautiful or ugly in the expected way.

**Results**

Similar to results from Experiment 1, Results from the second study indicates that participants in the aesthetic condition cheat less than participants in the unaesthetic condition. On average, participants in the beautiful condition report that they solved 3.16 anagrams, whereas participants in the ugly condition report 4.71 anagrams solved, $t(54) = -1.93, p = .03$ (one-sided). In general, the second study replicates the previous finding that aesthetic environments.

**GENERAL DISCUSSION AND FUTURE DIRECTIONS FOR THE CURRENT PROJECT**

In two studies, we tested the hypothesis that when exposed to aesthetic environments, individuals will behave more ethically than when exposed to unaesthetic environments. Up to now, we have established this main effect through 2 experiments using different tasks and stimuli. In the following studies, we will need to establish the underlying processes of this effect. We previously hypothesized that the opportunity to engage in unethical behaviors would greatly disturb the sensual perfection individuals’ receive from aesthetics (which is an undesirable state). If this hypothesis holds, the perceived perfection may be able to mediate the found effect. Also, introducing sense of imperfection may eliminate the found effect even if a beautiful environment is established. Therefore, in the following experiment we will examine the process by disturbing the sense of perfection, and by measuring this sense as a mediator.
REFERENCES


APPENDIX A: STIMULI USED IN EXPERIMENT 1

Unaesthetic stimulus

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Aesthetic stimulus
APPENDIX B: STIMULI USED IN EXPERIMENT 2

Unaesthetic stimulus (as rated by independent raters)

Aesthetic stimulus (as rated by independent raters)
CREATIVITY AND INNOVATION IN INTERNATIONALLY DISTRIBUTED NEW PRODUCT DEVELOPMENT TEAMS

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National diversity via geographical dispersion can provide access to relevant expertise even when members are spread in distant locations (Kirkman, Rosen, Gibson, Tesluk, & McPherson, 2002). In addition, it promotes a better understanding of global clients, operations and suppliers (Boutellier, Gassmann, Macho, & Roux, 1998; Gluesing & Gibson, 2003), all of which enable creative and flexible responses to the environment (Brown & Eisenhardt, 1995; Sole & Edmondson, 2002), and facilitates innovation (Gibson & Gibbs, 2006).

On the other, when members represent diverse national backgrounds, each with its own values, orientations, and priorities, diversity can negatively affect internal communication (Watson, Kumar, & Michaelsen, 1993) and innovation. It makes it difficult to access, combine, and apply relevant knowledge (Gibson & Gibbs, 2006). Carlile (2004) and Dougherty (1992) also argue that national diversity hinders team member understanding of each other, and forces resolution of misinterpretations before a team is truly able to innovate.

This suggests that simply bringing people together with the required knowledge and skills, is not a guarantee of effective work and innovation capacity (Gibson & Gibbs, 2006). However, some degree of diversity may be beneficial for teams looking to produce an innovative outcome. Still, studies have found a negative relationship between geographic dispersion and innovation, and no curvilinear effects (Gibson & Gibbs, 2006). This may be due to methodological shortcoming such as measuring innovation using simple and perceptual measures.

The purpose of this study is to explore the subtleties of the influence of national culture diversity on innovation. We do this by examining the influence of project stage, specific dimensions of national diversity, communication, and culture representation on diverse and objective measures of innovation.

NATIONAL CULTURAL DIVERSITY AND NPD STAGES

According to Johne (1984), new product development (NPD) can be simplified into two main phases: initiation, which involves idea generation, screening, and concept testing, and implementation, which deals with product development, test marketing, and product launch. The first stage focuses on conceptualization, while the second on fulfillment (Nakata & Sivakumar, 1996). By analyzing the process in these two stages, Nakata and Sivakumar (1996), argue that we can reconcile conflicting findings regarding the role of national culture and new product development.

Nakata and Sivakumar (1996), argue that particular cultural profiles may be more suitable for each stage of the NPD process. They suggest, for example, that cultures that are highly individualistic, low in power-distance, masculinity and uncertainty avoidance, may be a better fit for the initiation stages, whereas cultures that are low in individualism, high on power-distance, masculinity and uncertainty avoidance may be a better fit for implementation.

This view mainly favors homogeneity for both stages, corroborating studies and anecdotal evidence, which indicates that multicultural collaborations can be negatively affected by mistrust, stereotyping, language and communication difficulties, and stress (Nakata & Sivakumar, 1996). Groups characterized by diverse cultures, however, have been found to exhibit higher levels of innovation and problem solving ability (Hoffman, 1959). This is due to the variety of perspectives and a capacity to
recognize cognitive information in novel ways to arrive at an innovative solution (Nakata & Sivakumar, 1996).

It has been suggested then, that due to the potential for both positive and negative outcomes in culturally diverse, multicultural new product collaborations, careful design, selection of cross-cultural NPD team, and salient managerial skills are needed (Gross, Turner, & Cederholm, 1987).

Following this suggestion, and in order to better understand conflicting findings with regards to the role of cultural diversity and new product development outcomes, we pay attention to the design and selection of the NPD team, and analyze the new product development process by focusing on the stages proposed by Johne (1984).

**NPD Initiation Stage and Cultural Diversity**

As discussed previously, the initiation phase of new product development involves activities such as idea generation, screening and concept testing (Johne, 1984). It has been suggested that team homogeneity with respect to culture may be beneficial for this stage, in the form of a highly individualistic, low in power-distance, low in masculinity and low in uncertainty avoidance team (Nakata & Sivakumar, 1996). To better understand the impact of culture, we examine each of these dimensions separately.

*Individualism-Collectivism and NPD initiation stage outcomes*

Individualism appears to be beneficial during the initiation phase as high degrees of this trait may be associated with successful new product development (Nakata & Sivakumar, 1996). During this phase, people who strongly believe in their ideas must stand up to champion undeveloped projects. Product champions refer to people who put themselves on the line for risky ideas, nurture them beyond the requirements of their jobs (Schon, 1963), seek resources, challenge authority and ask embarrassing questions, even when others view their ideas unfavorably (Fry, 1987). Research on product champions has suggested that high degrees of individualism may be tied to successful new product development (Nakata & Sivakumar, 1996).

Goncale and Staw (2004) also found that teams with individualistic cultures are more creative because they encourage uniqueness, while collectivistic teams, although more harmonious and cooperative, may in fact, extinguish the necessary spark for innovation. This would suggest that during the initiation stage, a homogenous individualistic culture might be optimal for producing an innovative outcome.

Still, it is important to consider the outcomes that are expected during the initiation stage of an NPD process. This stage involves activities such as idea generation, screening, and concept testing (Johne, 1984), which outcomes relate to creativity. By definition, creativity is characterized by two elements, novelty and usefulness (Amabile, 1996). Considering both elements is relevant in examining creativity, as originality without usefulness, for example, may result in fads (Puccio, Mance, & Murdock, 2011). The creative process, and NPD initiation stage, thus involves phases of thought that individuals or teams engage in to produce an original and useful outcome (Feldhusen, 1993).

Before teams successfully produce a creative outcome, they usually spend some time generating ideas and evaluating them to develop the most promising one (Puccio & Cabra, 2012) Idea generation can thus be considered the search for novelty, whereas idea evaluation is the effort to make novelty practical, useful, or relevant (Puccio & Cabra, 2012).

We thus identify two important outcomes for the initiation stage of new product development: idea quantity and idea quality, and consider the impact of culture, specifically, collectivism and individualism, on the quantity and quality of ideas generated.
It has been previously suggested, that homogenous teams with individualistic cultures might be more beneficial for the initiation stage of new product development (Nakata & Sivakumar, 1996). If this were the case, this would entail both greater quality and quantity of ideas generated, by this type of team when compared to a collectivistic or heterogeneous team. Yet, recent research has found that while individualists outscore collectivists with regards to idea quantity, collectivists outscore individualist with regards to idea quality (originality) both individually and in teams (Saad et al., 2015). This would suggest that team heterogeneity could be beneficial for initiation stage outcomes, which include both quantity and quality of ideas generated.

This view would be in line with a cognitive resource perspective, which suggests that a group’s composition is an indicator of diversity in knowledge and perspectives (Webber & Donahue, 2001), and that as demographic heterogeneity increases, so does the group’s available resources to engage in complex problem-solving (Hambrick & Mason, 1984; Jackson, May, & Whitney, 1995; McLeod, Lobel, & Cox, 1996; Watson et al., 1993). Information and decision-making theories, also suggest that group heterogeneity may have a positive impact on innovation (Williams & O’Reilly, 1998), through enhanced access to skills, abilities, information, knowledge, and perspectives (Tziner & Eden, 1985). Drawing from information processing and cognitive resource perspectives, we thus expect a curvilinear relationship between group collectivistic-individualistic diversity, in relation to idea quantity and quality. Formally stated:

H1: Team collectivistic-individualistic diversity has a curvilinear relationship with NPD initiation stage project outcomes (idea quantity and quality).

Other cultural dimensions and NPD initiation stage outcomes.

Cultural dimensions that have been found to significantly affect creative and innovative activity include: collectivism, uncertainty avoidance, and power distance (Jones & Davis, 2000) (Mueller & Thomas, 2000). In addition, it has been suggested that cultures low in uncertainty avoidance and low in power distance may be beneficial during the initiation phase of NPD (Nakata & Sivakumar, 1996). During this NPD phase, the generation of ideas that are both novel and useful is a relevant outcome. It is then relevant to consider, the role of these traits, as they relate to idea generation.

Power distance considers the dynamics of power distribution among members of a society (Hofstede, 1980; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Schwartz & Bilsky, 1990). High power distance reveals acceptance of social inequality and control by the powerful of the less powerful (Hofstede, 2001), whereas low power distance reflects equality of all people.

Employees in high power distance societies are dependent on managers as it relates to direction and decision-making (House et al., 2004). Communication flow is primarily top down (Javidan & House, 2001) and employees do not think independently to produce their own solutions to problems (Erez & Nouri, 2010). Ideas generated by this cultural profile tend to follow existing rules and practices rather than break rules (Erez & Nouri, 2010). Apprehension of differing from existing norms and their related consequences (Hofstede, 2001) may instead stress idea appropriateness (quality and usefulness) to assure harmony with existing order and supervisor approval (Hofstede, 2001).

On the other hand, cultures with low power distance, may not be afraid to voice opinions and ideas, and feel less obligated to build on ideas that are more likely to be accepted by superiors (Hofstede, 2001). It has thus been suggested that the novelty of ideas generated would be higher for low power distance cultures, whereas the usefulness and appropriateness of ideas generated would be higher for high power distance cultures (Erez & Nouri, 2010).

As with the individualism-collectivism dimension, this would also suggest that team heterogeneity could be beneficial for NPD initiation stage outcomes, as both novelty and usefulness are required for a
creative outcome. In accordance, also, with information processing and cognitive resource perspectives, we expect a curvilinear relationship between group high-low power distance diversity, and idea quantity (novelty) and quality (usefulness). Formally stated:

H2: Team high-low power distance diversity has a curvilinear relationship with NPD initiation stage project outcomes (idea quantity and quality).

Uncertainty avoidance expresses the level of tension endured by individuals when confronting unfamiliar circumstances (Hofstede, 1980; House et al., 2004). Societies with high uncertainty avoidance adopt strict rules and procedures to reduce ambiguity. This rigidity may restrict improvisation and novelty (Erez & Nouri, 2010). Societies with low uncertainty avoidance, on the other hand, encourage exploration and experimentation, which promotes novel idea generation, but may hinder task implementation (Erez & Nouri, 2010). While it has been suggested that a high uncertainty avoidance culture may enhance the implementation stage, and a low uncertainty avoidance avoidance the initiation stage (Nakata & Sivakumar, 1996), given the need for both novelty and usefulness in idea generation, it is relevant to consider the influence of both profiles on these outcomes.

Cultures low in uncertainty avoidance are associated with elements such as diversity acceptance, norm deviation and openness to change, all of which enhance novelty (Gelfand, Nishii, & Raver, 2006), while cultures high in uncertainty avoidance are associated with elements such as order, efficiency, conformity and routine, which may support ideas that align with norms, and may be useful and appropriate (Erez & Nouri, 2010). Given the need for ideas that are both novel and useful, during the initiation NPD stage, and drawing from information processing and cognitive resource perspectives, we expect a curvilinear relationship between group high-low uncertainty avoidance diversity, and idea quantity (novelty) and quality (usefulness). Formally stated:

H3: Team high-low uncertainty avoidance has a curvilinear relationship with NPD initiation stage project outcomes (idea quantity and quality).

**NPD Implementation Stage and Cultural Diversity**

Cultural differences account not only for cross-national variations in creativity (NPD initiation stages) but also influence the innovation process and commercialization of innovations (Rosenbusch, Brinckmann, & Bausch, 2011). The most critical cultural dimensions that have been identified in this stage of NPD are individualism and power distance (Mitchell, Smith, Seawright, & Morse, 2000). The three types of outcomes that are typically studied in the NPD literature include NPD effectiveness, NPD efficiency, and speed to market (Keller, 2006; Mallick & Schroeder, 2005). NPD effectiveness considers product success with respect to external criteria, including market performance, quality, and level of innovativeness. NPD efficiency measures adherence to budgets and schedules whereas speed to market measures product commercialization, or the time to bring it to market (Sivasubramaniam, Liebowitz, & Lackman, 2012).

**Individualism-Collectivism and NPD implementation stage outcomes**

Nakata and Sivakumar (1996) argue that while collectivism may be detrimental during the initiation stage, it may enhance implementation, given the need for cohesion and single minded purpose. During this stage, participants need to cooperate closely to meet budgets, schedules, and objectives, and novel ideas and radical changes may mean greater costs and delays. Jhone’s (1984) examination of innovation infrastructures, shows that while innovating firms adopt loose structures during the initiation stage, they adopt tight structures during implementation to enhance control and coordination.

Information processing and cognitive resource perspectives suggest that demographic diversity may be beneficial for creativity (Williams & O’Reilly, 1998) and complex problem solving (Hambrick &
Mason, 1984; Jackson et al., 1995; McLeod et al., 1996; Watson et al., 1993). At this stage of the NPD process, however, diversity may be detrimental as new ideas may generate additional costs and delays.

Given that during this phase, collectivistic traits in the form of coordination, cooperation, interdependence, and unified purpose can enhance implementation outcomes and novel ideas may hinder successful implementation, we thus propose:

H4: Collectivistic NPD team homogeneity is positively related to NPD implementation stage outcomes.

**Power Distance and NPD implementation stage outcomes**

Members of high power distance cultures are characterized as resistant to change, dependent on supervisors and not accustomed to personal initiative or change adaptation (Hofstede, 1991). Power distance is related to maintaining the status quo and establishing barriers to novelty and change (Geletkanycz, 1997). It has been suggested then, that high power distance hinders the ability to generate new ideas (Shane, 1993; 1992).

The implementation of innovations requires control, to ensure that the efforts of initiation result in successful implementations of new products and services (Nakata & Sivakumar, 1996). High power distance cultures are characterized by centralized authority which may support new product development by aiding coordination of complex efforts (Nakata & Sivakumar, 1996).

Given that heterogeneously diverse groups as well as low power distance cultures are associated with the generation of new ideas, and the potential negative impact of these on cost and time during the implementation phase, it is suggested that a high power distance homogeneous culture may be beneficial to the NPD implementation process. Formally stated, we hypothesize that:

H5: High Power Distance NPD team homogeneity is positively related to NPD implementation stage outcomes.

**NPD Initiation Stage Outcomes as NPD Implementation Stage Inputs**

More than 50 years ago, McGrath (1964), suggested an input-process-outcome framework for studying team effectiveness. This model has served as an important guide to researchers over the years, being modified and extended in several ways (Cohen & Bailey, 1997; Ilgen, Hollenbeck, Johnson, & Jundt, 2005; McGrath, Arrow, & Berdahl, 2000).

In this model inputs describe antecedents that influence members’ interactions such as team member characteristics, team-level factors and organizational and contextual factors (Mathieu, Maynard, Rapp, & Gilson, 2008). These antecedents drive team processes which transform inputs into outcomes, which are referred to as the products of team activity (Mathieu et al., 2008).

One important adaptation of this framework is the consideration of the role of time in team functioning (Mathieu et al., 2008; Sivasubramaniam et al., 2012). A prominent approach in this case is the use of episodic models (Mathieu et al., 2008) such as Ilgen et al. (2005) IMOI (input-mediator-output-input) framework, which recognizes the cyclical nature of team functioning. We draw on this framework to consider NPD initiation stage outcomes (creativity) as influences in the NPD implementation stage.

Previous research (Im, Montoya, & Workman, 2012) has examined the role of creativity, in the form of new product novelty and meaningfulness (perceived appropriateness and usefulness), and its relation to new product and firm performance. It has determined that new product novelty and meaningfulness contribute to new product performance via new product competitive advantage. Following
this line of research, we hold that NPD initiation stage creativity will positively affect NPD implementation stage outcomes. Formally stated:

\[ H6: \] NPD initiation stage creativity (novelty and usefulness) is positively related to NPD implementation stage outcomes.

**Moderation Effects**

**Communication**

Communication and information exchange are critical skills in collaborative creative tasks (Ancona & Caldwell, 1992; Hülsheger, Anderson, & Salgado, 2009). Innovation in teams is dependent on the extent to which members effectively share ideas and information (Paulus & Dzindolet, 2008). Meta-analysis, for example, has established external communication as one of the strongest overall predictors of team creativity and innovation (Damanpour, 1991; Hülsheger et al., 2009). It is suggested that this is due to the ability of external communication to enhance idea generation by providing access to otherwise unavailable information, and to gather support for new ideas, as well as ensure proper implementation (Howell & Shea, 2006). It is relevant to consider however, that excess communication, may hinder creativity, as exceedingly frequent interactions can distract creative processes and signal a lack of efficacy (Kratzer, Leenders, & Engelen, 2004).

It is stated that the positive effects of diversity may be dependent on the extent of communication among team members and with outside contacts (Cummings, 2004; Cummings, Espinosa, & Pickering, 2009; Keller, 2001). We thus hold that communication will positively moderate the relationships between cultural diversity and creativity and cultural diversity and innovation. Formally stated:

\[ H7a: \] Communication will positively moderate the curvilinear relationship between team collectivistic-individualistic diversity and NPD initiation stage project outcomes (idea quantity and quality).

\[ H7b: \] Communication will positively moderate the curvilinear relationship between team high-low power distance diversity and NPD initiation stage project outcomes (idea quantity and quality).

\[ H7c: \] Communication will positively moderate the curvilinear relationship between team high-low uncertainty avoidance and NPD initiation stage project outcomes (idea quantity and quality).

\[ H7d: \] Communication will positively moderate the curvilinear relationship between collectivistic NPD team homogeneity and NPD implementation stage outcomes.

\[ H7e: \] Communication will positively moderate the curvilinear relationship between high power distance NPD team homogeneity and NPD implementation stage outcomes.

**Cultural representativeness**

Maintaining mutual knowledge among culturally distributed team members is a challenge in global product development (Cramton, 2001). It is difficult for distributed teams to communicate and for members to know with precision, the type of knowledge that is being shared, especially when compared with local teams.

Cultural differences may enhance the complexity of communication (Stahl, Maznevski, Voigt, & Jonsen, 2009). Some cultures for example, prefer to draw inferences from non-explicit information (high context) whereas others prefer direct expression and quantifiable details (low context) (Hall, 1976).
Effective communication requires that members share at least a common language to have proper alignment (Stahl et al., 2009). Different values and norms within cultures, increase the difficulty of finding a shared platform or common approach (Maznevski, 1994) and may cause irritation, misunderstandings and conflict (Brett, Behfar, & Kern, 2006). In addition, barriers to effective communication make it harder for people from different cultures to share ideas in forms that the team can use (Gibson & Gibbs, 2006).

Members from a same country however, hold relatively similar values and beliefs, and language and communication barriers are less likely to be problematic (Stahl et al., 2009). Demographic representativeness has been examined as the degree to which an organization’s ethnic diversity, represents a relevant community’s demography (King et al., 2011), which is presumed to facilitate organizational outcomes (Richard, 2000). In a similar manner, we hold that cultural representativeness may facilitate NPD outcomes by lowering communication barriers. Formally stated:

H8a: Cultural representativeness will positively moderate the curvilinear relationship between team collectivistic-individualistic diversity and NPD initiation stage project outcomes (idea quantity and quality).

H8b: Cultural representativeness will positively moderate the curvilinear relationship between team high-low power distance diversity and NPD initiation stage project outcomes (idea quantity and quality).

H8c: Cultural representativeness will positively moderate the curvilinear relationship between team high-low uncertainty avoidance and NPD initiation stage project outcomes (idea quantity and quality).

H8d: Cultural representativeness will positively moderate the curvilinear relationship between collectivistic NPD team homogeneity and NPD implementation stage outcomes.

H8e: Cultural representativeness will positively moderate the curvilinear relationship between high power distance NPD team homogeneity and NPD implementation stage outcomes.
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DEMAND MODELS WITH RANDOM PARTITIONS

Adam Smith and Greg Allenby, The Ohio State University

ABSTRACT

Many models of consumer demand require a partitioning of products or product attributes into mutually exclusive groups. The goal of this paper is to address the question of what to do if the partition is not known with certainty. Allowing for uncertainty in the grouping structure is important for making accurate inferences about other demand model parameters, accommodating partition heterogeneity, and learning about the structure of demand. We build on previous nonparametric Bayesian models for random partitions to construct a tractable method for generating partitions. This partition generating process is able to generate partitions that are “close” to other partitions, where the proximity is measured by a dispersion parameter. This feature allows us to implement a random-walk Metropolis-Hastings algorithm to navigate a high dimensional and irregular posterior distribution. Moreover, our method provides partition estimates that are easier to interpret than alternative methods, and allows us to identify interesting features of the distribution of partitions that can have implications for market segmentation and product design. Lastly, we use a Monte Carlo experiment to show that our estimation method is able to recover both the traditional set of model parameters and the partitioning.
DOES HELPING HELP YOU FEEL GOOD?
THE ANSWER DEPENDS ON CULTURAL ORIENTATION

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ABSTRACT
Building on culturally distinct conceptualizations of helping (obligation vs. choice), this research focuses on the emotional consequences of helping others. In this paper, we demonstrate that whether helping provides an emotional boost depends on cultural orientation, which determines attribution of helping to one’s personal character and strength of one’s moral identity. Further, the impact of emotional outcome of helping on a subsequent consumer behavior is explored.

INTRODUCTION
Imagine that you are sitting on a subway train that is packed with people—it takes about 40 minutes to get home, and therefore, you feel very lucky to be seated. However, suddenly you see a person who seems awfully tired and decide to give a seat to the person. Why would you feel compelled to help him/her? How would you feel afterwards? Previous work on emotional outcomes of helping behavior has suggested that helping others improves people’s moods. This effect is called “helper’s high” (Luks 1988). Building on this seminal finding, researchers have repeatedly shown that helping others produces feelings of joy and happiness (Batson 1990; Dunn, Aknin and Norton). Various kinds of pro-social behaviors such as volunteering and donation decrease depression and enhance psychological wellbeing (Greenfield and Marks 2004; Musick and Wilson 2003; Penner, Dovidio, Piliavin, and Schroeder 2005). Researchers have also found that people in older adult populations experience greater life satisfaction when they perform altruistic behaviors (Dulin and Hill 2003; Liang, Krause and Bennett 2001; Morrow-Howell, Hinterlong, Rozario and Tang 2003). These results suggest that helping act brings emotional benefits and wellbeing to helpers.

However, this stream of research is mostly conducted with Western samples. In other words, cultural variability has not been considered in the previous findings. In Western countries such as the United States and Canada, people put a strong emphasis on “exercising personal preferences” in making choices, such as the decision to help others. However, models of agency are different in other cultural contexts. In Asian models of agency, being responsive to the expectations of others, imposed by social roles and obligations, takes precedence over exercising individual preferences (Han and Shavitt 1994; Kitayama, Duffy and Uchida 2007; Markus and Kitayama 2003). Further, research showing that helping is perceived as an obligatory behavior in collectivistic cultures, but as a freely chosen behavior in individualistic cultures (Miller et al. 1990; Gardner, Gabriel and Lee 1999; Oyserman et al. 1988). These findings, together, suggest that cultural differences exist in conceptualizations of helping behavior.

Based on previous findings in cross-cultural research, we theorize that helping others does not always make the helper feel good. Instead, such a boost in mood after helping others depends on one’s cultural orientation. We suggest that culturally different patterns of self-attribution of the helping behavior underlie the proposed effects. Specifically, we hypothesize that there are cultural differences in the degree of construing helping others as a self-reflective behavior (e.g., attribution of goodness to the self after helping, internalized moral identity). Building on this, we argue that people who have cultural values that emphasize sociability and benevolence will not experience mood improvement after helping others. Finally, we demonstrate how such emotional outcomes of helping behavior unconsciously impact subsequent consumer behavior (e.g., tipping at a restaurant).

This research makes several theoretical contributions to the literature on cross-cultural differences and the literature on pro-social behavior. We extend existing work on pro-social behavior (Shang et al.
2008; Small et al. 2007; White and Peloza 2009; Winterich at al. 2009; Winterich at al. 2013) by suggesting that cultural orientation should be considered as an important factor affecting emotional outcomes after helping others. We further identify underlying mechanism of the phenomenon and demonstrate how it can impact consumer behavior. Also, this has managerial implications by suggesting potential impact of mood after helping on consumer behavior. Mood has been shown to impact various consumer behaviors such as creativity (Isen, Johnson, Mertz, & Robinson, 1985), coping processes (Taylor & Aspinwall, 1996), and variety seeking (Kahn & Isen, 1993). In the present research, we explore the impact of mood on consumer behavior by examining tipping after helping.

The remainder of the paper is organized as follows. We first review the relevant literature, provide theoretical support for our predictions and develop our hypotheses. Next, we report a set of 4 studies that test our hypotheses and provide support for our proposition. We conclude with a discussion on theoretical and practical implications and suggestions for future research.

CONCEPTUAL FRAMEWORK

Understanding cultural variability in helping is important because it is conceptualized differently according to cultural contexts (i.e., choice vs. obligation) (Miller et al. 1990; Gardner, Gabriel and Lee 1999; Oyserman et al. 1998). The most broadly used dimensions of cultural variability are individualism and collectivism (Hofstede 1990; Aaker, 1997). In collectivistic culture, individuals tend to form interdependent relationships to their in-groups and prioritize their in-group goals rather than their personal goals. On the other hand, in individualistic culture, individuals are likely to form more independent relationships to their in-groups and place their personal goals ahead of their in-group goals. The conceptualizations of individualism and collectivism are broad and multidimensional (Oyserman, Coon, & Kemmelmeier, 2002; Shavitt et al., 2006; Triandis & Gelfand, 1998). Therefore, researchers have applied vertical/horizontal distinctions, because the distinctions refine and better our understanding of individualism/collectivism effects (Triandis and Gelfand 1998; Lalwani, Shavitt and Johnson 2006; Shavitt, Zhang and Johnson 2006). The vertical/horizontal distinction refers to the nature and importance of hierarchy in interpersonal relations (Singelis et al., 1995; Triandis, 1995; Triandis et al., 1998; Triandis & Gelfand, 1998). Individuals with a vertical orientation emphasize status enhancement, whereas individuals with a horizontal orientation exhibit a focus on interpersonal support and common goals. Applying horizontal/vertical distinction to collectivism/individualism results in four distinct and independent cultural orientations (i.e., Vertical Collectivism, Vertical Individualism, Horizontal Individualism, Horizontal Collectivism).

Horizontal Collectivists (HC) tend to share common goals with others, and value interdependence and sociability within an egalitarian framework (e.g., Israeli Kibbutz, Brazil). Previous research on helping behavior seemed to be mostly based on North American samples that are supposedly high in Vertical Individualism (VI: e.g., United States, Great Britain). Vertical Individualists (VI) want to stand out from others, and acquire status through individual competitions with others (Shavitt et al., 2006; Shavitt, Riemer, & Torelli, 2011; Singelis et al., 1995; Triandis, 1995; Triandis & Gelfand, 1998). People high in HC and VI show stark difference in regard to helping behavior. When power is activated, people high in HC are more likely to help others, whereas people high in VI are more likely to enhance their personal status (Torelli & Shavitt, 2010). People high in HI or VC do not show any distinct pattern when power is made salient. The result is in line with previous findings that helping is conceptualized more as an obligation (vs. choice) in collectivistic culture (vs. individualistic culture). For instance, Indians regard helping as a social obligation, whereas Americans consider it as a personal choice (Miller et al., 1990). Gardner, Gabriel and Lee (1999) demonstrate that Asian Americans feel more social obligation to help a friend compared to European Americans. Further, according to Oyserman and colleagues (1988), collectivism increases obligation to help. Altogether, these findings suggest that people in collectivist culture compared to those in individualistic culture regard helping more as an obligation. Despite cultural differences in conceptualization of helping, cultural variability in outcomes of helping behavior has been less examined.
Building on previous findings, we focus on Horizontal Collectivism (HC) in this research and theorize that people's degree of HC will predict how they construe helping behavior and the emotional outcomes they experience after helping acts. We first argue that people high in HC compared to those low in HC will construe helping others as less of a behavior that reflects their personal good nature (i.e., self-reflective behavior). This will be reflected in the degree of self-attributing their personality traits to themselves as a helper. To examine personality attribution to a helper, we concentrate on competence and warmth related personality traits, because the two are fundamental dimensions of person perception (Asch, 1946; Cuddy et al., 2009; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Wojciszke, Bazinska, & Jaworski, 1998). We expect a different pattern in personality attribution to a helper according to his degree of HC and VI. To be specific, we expect that people high in HC will attribute a few interpersonal related (i.e., warmth) personality traits to themselves as helpers. This is because people high in HC will think they have merely fulfilled an obligation as a member of a group they are affiliated with (Miller et al. 1990). On the other hand, people high in VI will think they have made a willful choice, which reflects their good nature. Thus, they will attribute both competence-related and warmth-related personality traits to themselves. We formally propose as follows:

H1a. People who are high (versus low) in Horizontal Collectivism are less likely to construe helping others as less of a self-reflective behavior.

We also posit that cultural differences in conceptualization of helping behavior (obligation vs. choice) will be observed in moral identity. People high in HC will show stronger moral identity than those low in HC. According to Aquino and Reed (2002), moral identity is “a self-conception organized around a set of moral traits.” This can be further specified into symbolized moral identity and internalized moral identity. Symbolized moral identity is the degree to which the traits are reflected in the respondent’s action, whereas internalized moral identity refers to the degree to which the moral traits are central to the self-concept. Then, we expect that people high in HC will possess strong moral identity both in symbolized and internalized aspects. We assume they will have high internalized moral identity because people high in collectivism conceptualize helping as an obligation (Miller et al. 1990). Such a strong cultural emphasis on helping as an obligation will foster one to view having moral traits central to their self-concept. Further, as they value their group membership (Markus & Kitayama, 1991; Triandis, 1995), it will be critical for them to exercise a behavior that shows such moral traits that are culturally valued. Thus, we hypothesize that people high in HC (vs. low in HC) will have highly symbolized moral identity, and this symbolized moral identity will mediate an individual’s degree of HC and the subsequent moral behavior of the person.

H1b. People who are high (versus low) in Horizontal Collectivism will demonstrate higher symbolized moral identity.

H1c. Symbolized moral identity will mediate the relationship between Horizontal Collectivism and helping behavior.

We further posit that when people high in HC engage in a helping act, it is unlikely to influence their subsequent helping acts. Since a helping act is conceptualized as an obligation among those high in HC, a subsequent helping act will not be influenced by their previous helping experience. In other words, moral licensing effect, which refers to feeling free to refrain from engaging in a good behavior after conducting a moral behavior (Zhong, Liljenquist, & Cain, 2009), will not be shown among those who are high in HC.

Building upon these culturally distinct construal of helping behavior, we predict that emotional boost after helping act depends on one’s degree of HC. Specifically, we predict that people high in HC will not feel emotional boost after helping others because they have fulfilled their obligation. On the other hand, people low in HC will feel emotional boost after helping others because they are not tied to the
conceptualization of helping behavior as an obligation. They are more likely to think they willingly helped a person and will feel proud of themselves or experience a lessening of negative mood because they have chosen to help others. To test our hypotheses, we recruited population samples high in HC (i.e., Brazil) and population samples high in VI (i.e., the U.S.). We assume that HC scores will mediate the relationship between country and mood outcomes as a function of helping (vs. control). To summarize, we propose that cultural orientations (i.e., HC/VI), which differ by country, will moderate emotional outcomes after helping/control.

**H2.** Helping behavior is more likely to lead to mood enhancement for people who are low (versus high) in Horizontal Collectivism.

Further, we propose that these differential emotional outcomes after helping/control task will impact subsequent consumer behavior (i.e., tipping). In previous literature, tipping has been conceptualized as an index of customer satisfaction (Fitzsimmons and Mauer 1991), social influence (Freeman et al. 1973) and a measure of interpersonal liking (Hornik 1992). Here, we conceptualize tipping as an index of customer satisfaction, which reflects their willingness to pay for the service. Various ways have been suggested to increase tip (Sanson 2001), one of which was positive mood of consumers as triggered by good weather, smile of a server, and pictures on bills (Forgas 1992). Building on these prior findings, we expect that mood after helping others will impact the amount of tip. We hypothesize that people high in HC will not show increased tip amount after helping, because they do not experience boost in mood after helping behavior. On the other hand, we expect people low in HC will show increased tip amount after helping due to their elevated mood afterwards. Formally, then, we expect:

**H3.** People high in HC tip a server less amount of money after helping (versus control).

**STUDY 1A**

Study 1a is intended as an initial demonstration to explore whether there are cultural differences in construing helping as a self-reflective behavior (H1). Attribution of warmth-related and competence-related personality traits to a helper – in this case, to the self – may reflect the degree to which people spontaneously construe helping as a self-reflective behavior. The more people think of helping others as a self-reflective behavior, the more people will attribute these personality traits to a helper. Therefore, we posited that people high in HC (vs. low in HC) would attribute less of the personality traits to a helper. In comparison, people high in VI (vs. low in VI) will attribute more of the personality traits to a helper.

**Participants and Design**

97 participants were recruited through Amazon Mechanical Turk in exchange for small sum. The study was a within-subject design, in which cultural orientation (i.e., HC, VI, VC, HI) of participants was measured.

**Procedure**

Participants were first asked to complete a cultural orientation measure (Triandis and Gelfand 1998), which consists of 16 items in groups of four that measure one cultural orientation (e.g., Vertical Individualism is captured by a scale item such as “Winning is everything”; Horizontal Collectivism is captured by a scale item such as “I feel good when I cooperate with others”). Then, they participants asked to imagine that they were the helpers depicted in a scenario while they read it. After reading the scenario, participants rated themselves on four warmth-related personality traits (i.e., friendly, generous, caring, sociable) and four competence-related personality traits (i.e., heroic, brave, competent, conscientious) (Cuddy, Fiske, & Glick, 2007). After completing the personality trait-rating task, participants completed PANAS, which is a self-report mood measure. Upon completion, participants filled out a demographic questionnaire and were debriefed on the study.
Results
We found that the number of significant personality trait correlations with cultural orientation ($p < .05$) was highest for VI and lowest for HC. To be specific, VI significantly correlated with all the 8 personality traits. VC correlated with 7 personality traits (i.e., only no significant correlation with ‘conscientious’). HI significantly correlated with 5 personality traits (i.e., no significant correlations with ‘friendly’, ‘sociable’, ‘brave’). Most notably, HC correlated with only 2 personality traits (i.e., significant correlations with ‘friendly’, ‘generous’). These results suggest that people high in VI, compared to people high in HC, attribute more positive personality traits to the helper (themselves) in the scenario.

Discussion
Study 1a supported Hypothesis 1a that people high in HC (vs. low in HC) construe helping others less as a self-reflective behavior. The higher people were in HC, the more they were likely to attribute two warmth-related personality traits (i.e., friendly, generous) to themselves. The higher people were in VI, the more they were likely to attribute all the eight personality traits to themselves. This reflects a cultural difference in degree of construing helping behavior as self-reflective. It aligns with the previous finding that people high in collectivism (vs. individualism) conceptualize helping as an obligation (vs. choice). If one conceptualizes helping as an obligation, they would think of the behavior less as a willful action and thus attribute fewer personality traits to themselves. This lays foundation why people high in HC would not experience mood improvement after helping (vs. control).

However, it is also possible that the result may simply reflect the finding that Westerners, who are high in individualism, possess a strong need to view themselves positively (Greenwald, 1980; Taylor & Brown, 1988). Researchers have found that there is a positive relationship between independent self-construals and positive self-views within various cultures (correlations range between .33 and .51; Oyserman et al., 2002, Singelis, Bond, Lai, & Sharkey, 1999). In addition, this might reflect fundamental attribution error, which refers to people’s tendency to overestimate internal characteristics than external factors when they try to explain others’ behaviors. This tendency is more pronounced in Western cultures compared to non-Western cultures (Morris & Peng, 1994). In subsequent studies, we included a control group, who completed a non-helping task that is similar and comparable to a helping task, in the design to rule out possible alternative explanations.

Table 1. Descriptive Result of Correlations between Cultural Orientations and Personality Trait Ratings

<table>
<thead>
<tr>
<th></th>
<th>Friendly</th>
<th>Competent</th>
<th>Generous</th>
<th>Conscientious</th>
<th>Heroic</th>
<th>Caring</th>
<th>Sociable</th>
<th>Brave</th>
</tr>
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<tbody>
<tr>
<td>VI</td>
<td>.40**</td>
<td>.21*</td>
<td>.36**</td>
<td>.27**</td>
<td>.30**</td>
<td>.27**</td>
<td>.39**</td>
<td>.41*</td>
</tr>
<tr>
<td>VC</td>
<td>.36**</td>
<td>.22*</td>
<td>.35**</td>
<td>NS</td>
<td>.31**</td>
<td>.26*</td>
<td>.21*</td>
<td>.28**</td>
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<tr>
<td>HI</td>
<td>NS</td>
<td>.30**</td>
<td>.22*</td>
<td>.41**</td>
<td>.24*</td>
<td>.29**</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>HC</td>
<td>.21*</td>
<td>NS</td>
<td>.21*</td>
<td>NS</td>
<td>NS</td>
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<td>NS</td>
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</table>

***. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

STUDY 1B
Building on Study 1a, we posit that there will be cultural differences in moral identity, which motivates moral action (Blasi 1984; Damon and Hart 1992; Erikson 1964; Hart, Atkins and Ford 1998). Based on previous finding that people high in collectivism conceptualize helping as an obligation (Miller et al. 1990) and their strong emphasis on group membership (Triandis et al. 1988), we hypothesized that
the higher people are in HC, the stronger their moral identity will be both in terms of symbolizing and internalizing moral identity. In comparison, we predict a rather different pattern in VI. The higher people are in VI, the higher they will be in only symbolizing moral identity (i.e., the degree to which the traits are reflected in the respondent’s actions in the world) but not in internalizing moral identity. We predict this will occur because it could be important for people high in VI to show others that they have desirable moral traits, which in turn would help enhance their personal status. However, people high in VI are likely to conceptualize helping as a choice (Miller et al. 1990), and are less likely to internalize moral traits. We hypothesize that symbolized moral identity will mediate the degree of HC and subsequent helping behavior. Further, we posit that engagement in a subsequent helping act of people high in HC will not be influenced by their previous engagement in helping act. In other words, moral licensing effect will not occur among those high in HC.

Participants and Design
We recruited 126 participants from Amazon Mechanical Turk in exchange for small sum. The study was a mixed design. We measured cultural orientations (i.e., HC and VI) of participants and manipulated helping task (helping vs. control) as a between-subject factor.

Procedure
Participants first completed a cultural orientation measure (Triandis and Gelfand 1998). According to the condition they were assigned to (helping vs. control), they were either asked to write a past event in which they helped someone or any daily event that is insignificant. Upon completion of this manipulation task, participants read a brief description of a charity called K.I.D.S., which is aimed to promote children’s welfare. Next, they were asked how much money they were willing to donate to the charity. Participants next completed a 10-item moral identity scale (Aquino and Reed 2002), by indicating the degree to which they agree/disagree to the statement on a scale of 1 (strongly disagree) to 7 (strongly agree). The scale consists of two subscales that each measure symbolization (e.g., “I am actively involved in activities that communicate to others that I have these characteristics”) and internalization (e.g., “Being someone who has these characteristics is an important part of who I am”) of moral identity. Finally, they completed a short demographic questionnaire.

Results
Bivariate correlations revealed that the higher people are in HC, the higher symbolized and internalized moral identity they possess. To be specific, HC showed significant positive correlations with symbolized moral identity (Pearson’s r = .41, p < .01), and with internalized moral identity (Pearson’s r = .31, p < .01). On the other hand, VI showed a significant positive correlation with symbolized moral identity (Pearson’s r = .24, p < .01), but significant negative correlation with internalized moral identity (Pearson’s r = -.32, p < .01). This suggests that people high in VI may care how others view them as having moral traits but having those traits is not central to their self-concept.

Building on the above finding that there is a high correlation between HC and symbolized moral identity, we hypothesized that a subsequent helping act (i.e., donating to a charity) after recalling a past helping behavior (vs. control behavior) will be mediated by symbolized moral identity. To test the mediation, we conducted a bootstrapping analysis (Preacher and Hayes 2008; Zhao, Lynch, and Chen 2010). We found a significant indirect effect of HC on donation amount through symbolized moral identity (β = .10, SE = .05, 95% confidence interval [CI] .02 to .20), which establishes participants’ symbolized moral identity as a mediator. The direct effect of HC on donation amount was not significant (β = .05, SE = .09, p = .62), which suggests that the observed mediation may be classified as indirect-only (Zhao et al. 2010). In the model, VI was input as a covariate. The influence of VI on donation amount was insignificant (β = -.03, SE = .06, p = .65). Notably, VI negatively predicted participants’ donation amount, whereas HC
positively predicted it. Taken together, this analysis indicates that participants’ subsequent helping behavior was guided by symbolized moral identity, which was in turn influenced by their degree of HC.

We further tested whether moral licensing effect, which refers to slacking in conducting a good behavior after one has behaved morally, is present among people high in HC. To test the effect, we conducted a moderated mediation analysis, in which HC serves as an independent variable, symbolized moral identity as a mediator, and previous engagement in helping behavior as a moderator (Hayes Macro Model 14). The analysis revealed that the moderated mediation is insignificant ($\beta = .00, SE = .07, 95\% confidence interval [CI] -0.15 to .15$). This supports our hypothesis that engagement in a new helping behavior (i.e., donation to a charity) of those high in HC is not impacted by whether they helped previously.

**Discussion**

The results support our hypothesis that helping behavior is perceived as less of a self-reflective behavior among those high in HC (vs. low in HC). This is reflected in their moral identity (both symbolic and internalized), which mediated their level of HC and subsequent helping behavior. Notably, their engagement in a new helping behavior was not influenced by their previous helping act. In other words, people high in HC do not slack in their subsequent helping act (i.e., donating to a charity) because they have a strong sense of moral identity. Based on these findings, we hypothesize that people high in HC would not experience enhanced mood after helping others.

**STUDY 2**

The objective of Study 2 was to test H2. Study 2 was designed to investigate whether there are cultural differences in emotional outcomes after helping others. To be specific, we hypothesized that people high in VI would have significant mood improvement after helping others. On the other hand, I predicted no significant mood improvement would occur for people high in HC after helping others. Further, we collected data from the US and Brazil to test robustness of the effect across countries. The United States is a country high in VI. On the other hand, Brazil is a country high in HC (Shavitt et al., 2006; Torelli & Shavitt 2010; Hofstede, 1980). We theorized that cultural orientation (HC/VI), which differs by country, would impact emotional outcomes of helping.

**Participants and Design**

Two hundred participants were recruited from a University of Illinois subject pool in exchange for extra course credit. Another two hundred participants were recruited from Centro Universitário de Brasilia. Study 2 consisted of one manipulated factor (helping condition: helping/control) and one measured factor (cultural orientation: HC/VI) between-subjects design. *(Note: A bilingual researcher in Brazil translated experimental materials into Portuguese. All of the materials and procedures were the same in the US and Brazil.)*

**Procedure**

First, participants completed a PANAS scale (Watson, Clark, & Tellegen, 1988), which is a self-report measure of current feeling used in this study to assess baseline moods of participants. Then, participants filled out a cultural orientation measure (Triandis & Gelfand, 1998) and completed a filler task (10 minutes). Upon completion of the filler task, participants read a fact regarding K.I.D.S., which is a charity for children, before they proceed to the next part. Next, all participants completed the same design logo task, which was framed differently according to which condition they were assigned. Specifically, participants in the helping condition were instructed to help the charity, K.I.D.S., by drawing a logo to increase awareness and engagement with the charity. On the other hand, participants in the control condition were asked to draw a logo as a simple auto-motor drawing task. Next, they completed the Emmons Mood Indicator (Diener & Emmons, 1984), a second mood measure, to assess moods after the manipulation. Lastly, participants completed demographic questions, and were debriefed.
Results

Moderated Mediation: HC as a Mediator. Here, we tested how HC, which differs by country, affects emotional outcome after helping. Thus, we ran a regression model on mood difference (i.e., Post-helping mood index – Pre-helping mood index) with the country of participants (the U.S./Brazil) as an independent variable; HC as a mediator; helping condition as a moderator; VI as a covariate.

The analysis revealed that the result is in support of our hypothesis. First, we found the country of participants significantly predicted their degree of HC, with people in Brazil scoring higher than people in the U.S. did ($\beta = .47$, $t = 4.99$, $p < .01$). A regression model on mood revealed a main effect of helping condition significant in such that participants in the helping condition compared to those in a control condition experienced mood improvement ($\beta = 2.03$, $t = 2.69$, $p < .05$). More importantly, the interaction between helping condition and HC was significant ($\beta = -.38$, $t = -2.72$, $p < .05$). To further analyze the interaction between HC and helping condition, we ran mediation analysis. The indirect effect of country on negative mood difference through HC was significant ($\beta = -.13$, SE = .05, 95% confidence interval [CI] -.26 to -.05) in the helping condition, whereas it was not significant ($\beta = .05$, SE = .05, 95% confidence interval [CI] -.04 to .17) in the control condition. The result suggests that people who are low in HC felt significant mood improvement after helping (vs. control), whereas people who are high in HC did not. The other coefficients (i.e., the interaction between country and helping condition, the country of participants, the degree of HC) were not significant in predicting mood in the model. VI, which was input as a covariate was significant ($\beta = .07$, $t = 1.34$, $p < .05$), suggesting that the higher people were in VI, the more they were in good moods regardless of whether they completed a helping or control task.

Discussion

This study supports our hypothesis that feeling better after helping others (i.e., helper’s high) depends on the degree of HC. This is counter-intuitive because previous research documented that helping others increases one’s emotional wellbeing by providing positive affect, happiness and life satisfaction (Thoits & Hewitt, 2001; Weinstein & Ryan, 2010). Study 1 and Study 2 altogether suggest that people high in HC (vs. low in HC) conceptualize helping act as an obligation and construe it less as a self-reflective behavior, thus resulting in no mood enhancement.
STUDY 3

Building on Study 2, we explore the impact of mood after helping on consumer behavior. We explore this in the present research by examining tipping. Previous research suggests that customers in good moods are likely to tip more to the server (Forgas 1992). Building on these findings, we propose that people high in HC will not increase their tip after helping (vs. control). In fact, we posit that their tipping amount will decrease in line with their mood after helping behavior shown in Study 2. On the other hand, we expect that people low in HC will increase tip after helping (vs. control), because they experience enhancement in mood afterwards.

Participants and design

We recruited 152 participants from Amazon Mechanical Turk in exchange of small sum. Study 3 employed a mixed design, which had one manipulated factor (helping condition: helping/control) and one measured factor (cultural orientation: HC/VI) between subjects-design.

Procedure

First, participants completed PANAS mood measure, which assesses their baseline mood. Next, participants completed a cultural orientation measure (Triandis and Gefland, 1998), followed by a writing task. According to the condition they were assigned to, participants either wrote about a past event in which they helped others or their daily insignificant event. Then, they read a scenario in which they had a nice meal with a great service from the server at a restaurant. After reading the scenario, they indicated the amount of tip they would like to pay. Finally, they completed a short demographic questionnaire and were debriefed.
Results

We excluded two participants from analysis (i.e., one participant who did not complete the writing task and one whose tip amount was 5 SD above the mean), resulting in 150 participants for the final analysis. To analyze the impact of HC on the relationship between helping behavior and tipping at the restaurant afterwards, we input HC as a moderator while controlling the degree of VI. The overall model was marginally significant \((F(4, 145) = 2.26, p = .066)\). The main effect of HC was significant \((\beta = .25, t = 2.02, p = .05)\), which means that the higher people are in HC, the more they tip. The main effect of helping condition was marginally significant \((\beta = 1.59, t = 1.84, p = .07)\), suggesting that people who wrote about a helping event tipped more than those who wrote about a daily insignificant event. The covariate in the model (i.e., VI) was insignificant \((\beta = -.08, t = -.99, p = .32)\).

In support of our hypothesis, we found a significant interaction between HC and helping condition \((p = .03)\). People high in HC who completed a helping writing task \((M = -.22)\) tipped significantly less than those high in HC and completed a daily event \((M = .37)\). On the other hand, people low in HC who completed a helping task \((M = -.03)\) showed a slight increase in their tipping amount compared to those low in HC and completed a control task \((M = -.15)\). This means that people high in HC tip a server less after a helping act than a control act, whereas those low in HC tip a server more after a helping act than a control act.

Discussion

This study demonstrates how mood after helping behavior can impact a subsequent consumer behavior (i.e., tipping). Specifically, we showed that people who experience no enhancement in mood after helping others (i.e., people high in HC) are likely to tip less and vice versa. The pattern we observe in the tipping amount aligns with the emotional outcome of helping others in Study 2. This suggests that restaurants/retail shops may benefit by promoting consumers’ engagement into pro-social behavior when population is low in HC. Such mood enhancement experienced among consumers by engaging in pro-social behavior will subsequently increase their spending on services and goods.

GENERAL DISCUSSION

This research investigates the effect of culture in emotional and behavioral outcomes of helping behavior. Most previous work has been focused on how to engage people into helping behavior by examining fund-raising appeals (Fisher, Vandenbosch and Antia 2008; White and Peloza 2009), or moral identity of an individual (Lee, Winterich and Ross 2014). Some previous works that investigated emotional outcomes of helping behavior demonstrated that helping others increases one’s emotional wellbeing by providing positive affect, happiness and life satisfaction (Thoits & Hewitt, 2001; Weinstein & Ryan, 2010). It was shown that people also believe that helping others will have positive impact on their mood (Harris 1997). Yet, these works have not considered cultural variability. By examining the impact of cultural variability on helping behavior, we provide a better understanding on how helping behavior impacts people feel and behave afterwards in different cultural contexts.

Across four studies, we demonstrated that mood improvement after helping depends on one’s cultural orientation. Specifically, we found that people high in HC do not experience enhancement in mood after helping, which is in contrast to previous findings on pro-social behavior. Moreover, this paper uncovers the process of the phenomenon. In Study 1a, we found that people high in HC (vs. low in HC) construed helping others less of a self-reflective behavior (i.e., a behavior that reflects their personal good nature), which suggests an explanation for why people low in HC (vs. people high in HC) would feel better after helping others. We found that people high in HC has a stronger moral identity, and do not slack after their previous engagement in helping behavior. In Study 3, we also demonstrated the emotional outcomes of helping behavior impact consumer behavior (i.e., tipping). Altogether, we demonstrated that emotional
outcome of helping behavior depends on cultural orientation, and such outcome influences a subsequent consumer behavior as well.

THEORETICAL AND MANAGERIAL IMPLICATIONS

This paper contributes to existing literature on cross-culture and pro-social behavior in several ways. First, we focus on cultural differences in emotional and behavioral outcomes of helping behavior. There are many recent articles that demonstrate cross-cultural differences in helping behavior. A recent article by Duclos et al. (2014) showed that people with an interdependent self-construal are more likely to help in-groups than out-groups, whereas, people with independent self-construal did not show such differences across in-groups and out-groups. Further, power distance was found to shape perception of perceived responsibility to help, which consequently influences willingness to help (Winterich & Zhang, 2014). These works provide insight by focusing on what motivates people to help or whether they help others. However, cultural variability in outcomes of helping behavior has been left uninvestigated. We further the understanding of helping behavior by investigating the outcome of it and impact on a subsequent consumer behavior. Second, we expect our work will encourage the development of more integrative theories to account for cultural differences in helping behavior.

Managerially, our finding has direct implications in that the benefit of having pro-social campaigns in service/retail settings will be stronger in population that is low in HC than in population that is high in HC. Practitioners should be aware that engaging in a helping behavior results in different mood outcomes, which in turn impacts helpers’ subsequent consumer behavior. Therefore, we argue that promotion of pro-social campaigns in service/retail settings should be preceded with careful examination of target population. If target population is low in HC, they will experience enhancement mood enhancement and spend more money/tip more in the setting after engaging in helping behavior.

LIMITATIONS AND FUTURE RESEARCH DIRECTION

We are aware that there are several limitations in this study. First, participants had no option but to help in this experimental set-up. There was no choice of opting in or out from helping the others in these studies. This was because we were not interested in whether they would help or not. Our primary interest was in how people would feel after helping. However, we acknowledge that our experimental set-up may have restricted reality in helping situations by not reflecting participants’ willful helping.

In this research, we only focused on how people feel after helping others across cultures. However, it would be also interesting to investigate cultural differences in how people would feel when they did not help others. They may have not helped the others because of circumstantial reasons (e.g., lack of time) or for personal reasons. Regardless of the types of reasons, there would probably be considerable differences in emotional outcomes after not helping across cultures. We expect that people high in HC would feel guiltier after not helping others, compared to those high in VI. This is because not fulfilling an obligation can be condemned, whereas, not exercising a personal choice will not be criticized. It would be interesting to investigate how such emotional outcomes after helping impact helpers’ future helping behavior as well.

Along with this research, we are interested in exploring cultural differences in motivation after helping others. We assume that people high in HC (vs. high in VI) would be more motivated to pursue group-goals (vs. pursue personal goals) after helping others. This prediction was tested by examining emotional intensity in recalling past events that the self was in the center of attention or not in the center of attention. Heightened emotional intensity recalling an event in which the self is in the center of attention (vs. not in the center of attention) would signal motivation to pursue personal goals (vs. group-goals). Supporting the hypothesis, people high in HC reported heightened emotionality when they recalled an event in which they were not in the center of attention (i.e., an other-focused event). On the other hand, people high in VI reported heightened emotionality when they recalled an event in which they were in the center.
of attention. In the next study, we will use a more direct proxy of intrinsic motivation to test the hypothesis and the underlying process. Investigating motivational outcomes of helping behavior along with emotional outcomes of it would provide a better understanding of helping behavior.

Lastly, future research may explore when people high in HC feel obligated to help others. Researchers might investigate what would trigger a person to fulfill an obligation to help. Furthermore, it would be interesting to study how people develop distinct concepts of helping (i.e., choice vs. obligation). It may be a longitudinal study, which requires a long period of time, but it would be interesting to see the process of development.
REFERENCES


POLITICIZED PURCHASING: 
THE IMPACT OF CORPORATE POLITICAL ACTIVITY ON 
CONSUMER ATTITUDES AND PURCHASE INTENTIONS

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ABSTRACT

Prior to the Citizens United ruling in 2010, which allows unlimited spending on political causes by individuals and businesses, corporate political activity (CPA) typically consisted of interest-based spending to help firm or industry financial performance. However, since Citizen’s United, firms have often spent resources on controversial political causes unrelated to financial performance. This new era corporate political activity (NECPA) has been increasing at an unprecedented rate. In the 2012 election directly after the ruling, independent expenditures increased 486% from 2010, surpassing $1 billion (Open Secrets 2014). To better understand this phenomenon’s impact on consumers, the authors employ an experiment assessing consumer responses to fictional firms undertaking controversial NECPA. Findings indicate that NECPA has a significant negative impact on brand attitudes and purchase intentions when it is viewed as inconsistent with the consumer’s political orientation. Further, brand attitudes mediate the NECPA x political orientation interaction on purchase intentions.

INTRODUCTION

Prior to the Citizen’s United Supreme Court decision in 2010, corporate involvement in politics was closely regulated. Donation amounts were restricted and public disclosure of donations was required. Within this regulatory climate, companies, unions, and industries traditionally made donations to further their financial performance, for example, by trying to get costly regulations that impacted their own corporate outcomes reduced, or trying to impose new regulations to adversely impact a competitor. Researchers interested in this “old-fashioned corporate political activity” (OFCPA) have primarily used secondary data to analyze the impact of firm-focused CPA on firm financial metrics, with results generally supporting its positive impact on firm performance (for a review, see Lux, Crooks, and Woehr 2011).

While these insights are valuable, the Citizen’s United ruling has dramatically altered the potential scope and nature of contemporary CPA. Today, companies can devote unlimited amounts of money to a wide range of causes, some directly related to the firm’s bottom line, and others less so (e.g., financially supporting divisive social causes). As a result, prior CPA literature tells us little about how contemporary and potentially more controversial “new era corporate political activity” (NECPA) impacts businesses, consumer behavior, and society as a whole. This is an important gap, considering recent anecdotal evidence suggesting that firms adopting stances on divisive social issues face potential backlash from certain groups of consumers.

As an example, in July 2012, consumers learned that Chick-Fil-A had donated approximately $5.5 million to anti-gay groups between 2010 and 2011 (Israel 2014). The resulting media exposure ignited furious debate among those both supporting and opposing same-sex marriage. After progressive groups boycotted the company, conservative leaders organized “Chick-Fil-A Appreciation Day” to show public support for the company and its stance. While Chick-Fil-A initially stood by its position, within four days of the donations becoming public, Chick-Fil-A’s brand opinion fell 26%, to 7% below the national average for quick service restaurants (Marzilli 2013). Further, despite continued outspoken conservative support for the company, Chick-Fil-A subsequently reduced anti-gay spending from $3.6 million in 2011 to around $25,000 by the end of 2012, a reduction of 99.2% (Israel 2014). Consumer response to Chick-Fil-A’s anti-gay CPA begs the question: with businesses increasingly donating to controversial causes, is it possible that these strategies can hurt businesses by alienating customers holding views conflicting with the company?
The present work aims to address this question by studying how and why NECPA—operationalized in terms of the stance a firm adopts on U.S. immigration policy—impacts consumer attitudes and purchase intentions. Our central takeaway is that, as with Chick-Fil-A, NECPA’s impact on attitudes and purchase intentions depends strongly on the political orientation of the consumer. In short, consumers respond negatively when the political orientation of the firm (implied by its stance on the social cause) is at odds with the political orientation of the consumer. More importantly, results also suggest that NECPA rarely has a positive impact on attitudes or purchase intentions. From this, the authors suggest that businesses may want to avoid controversial NECPA unrelated to their specific financial interests in order to avoid potential negative financial outcomes. We next review research on OFCPA and NECPA, develop hypotheses regarding how and why NECPA is likely to impact consumer responses, and then report a study testing our hypotheses which yields insights for practitioners, policy-makers, and consumers alike.

**LITERATURE REVIEW**

**The Firm**

Both OFCPA and NECPA start at the firm level. OFCPA typically starts with a conscious cost/benefit decision by a firm to use its resources to try to influence political outcomes. Traditionally, OFCPA decisions have been made in a rational and self-interested manner to increase financial performance. As an example, tomato producers successfully lobbied to get ketchup classified as a vegetable for school lunches as a way of increasing demand for tomatoes. This strategy is generally deemed to be a good one, and is still actively used by businesses, industries, and interest groups, as OFCPA has been found to positively impact firm performance (Lux, Crooks, and Woehr 2011).

However, since the significant changes to the campaign finance system in 2010, allowing unlimited political donations by both individuals and corporations, how corporations influence politics has shifted in a dramatic way. Corporations are now allowed to spend as much money as they desire to causes directly related to their financial performance as well as those unrelated to it. Thus, past research on OFCPA leaves significant gaps in our understanding of the NECPA being undertaken today. While firms are still employing OFCPA, more controversial NECPA has increasingly become a common phenomenon among firms.

These less strategically self-interested instances of corporate political donations have been increasingly responsible for firm boycotts and financial loss (Farfan 2010). Beyond Chick-Fil-A, prominent NECPA controversies include Amazon’s donation to pro-gay causes, Target’s anti-gay donations, and Hobby Lobby’s fight against the federal government to avoid providing employees with contraception. Notably, Hobby Lobby’s fight went far enough to severely alienate mainstream business interest groups that typically support their members and caused some of the world’s largest business interest groups to file briefs against their case. These groups included the US Women’s Chamber of Commerce and the National Gay and Lesbian Chamber of Commerce, whose members represent some of the largest and most powerful firms in the world.

The preceding incidents provide a clear contrast between OFCPA and NECPA; previously, firms had largely donated money across both parties in the interest of preserving friendly relationships with incumbent politicians, lobbying, or industry specific causes. However, since 2010, firms are increasingly donating to causes that may be controversial or damaging to the firm. An important consequence of these types of NECPA is that the firm tacitly adopts a political identity, identifiable by consumers, when the firm supports a certain cause with an implied political position. Consequently, the difference between the business’ assumed identity and the consumer’s political views is likely of critical importance when considering how consumers will react to NECPA.
Identity and Political Orientation

Within identity, political orientation represents a multi-faceted and complicated core trait, functioning as an ongoing way for humans to define how a normative world would behave, including preference for hierarchy and meritocracy (Pratto et al. 1994) and moral reasoning (Reicher and Emler 1984). Political orientation is typically thought of as a continuum, anchored on one end by very conservative people and on the other end by very liberal people, with moderate individuals in the middle.

In American politics, very conservative people tend to support candidates and policies that adhere to “traditional” values and prefer “small” government (Pew 2013). For example, conservatives in America tend to oppose gun control, legalized abortion, and taxes on corporations. Research has found conservatism to be closely connected to low-effort cognitive processes, acceptance of hierarchy, and a general preference for the status quo (Stone 1994; Bobbio 1996; Eidelman et al. 2012). In sum, conservatism represents psychological biases toward tradition, order, conformity, and system justification when faced with uncertainty or threats (Jost, Nosek, and Gosling 2008).

At the other end of the continuum are people who adopt a very liberal political orientation. In America, very liberal people tend to support policies and candidates that adhere to “progressive” values and prefer a more active role for the state. For example, American liberals tend to support gun control, legalized abortion, and redistributive economics (Pew 2013). Research has found liberalism to be closely connected to egalitarian values, agreeableness and compassion, as well as a general preference for change (Goldberg & Rosolack, 1994; Jost, Nosek, and Gosling 2008; Hirsh et al. 2010). In sum, liberalism represents psychological biases toward egalitarianism and change when faced with uncertainty or threats (Jost, Nosek, and Gosling 2008).

Worldview Threats and Political Orientation

Taken together, both extremes of political orientation serve as psychological buffers to aid humans in dealing with threats and uncertainty (Jost, Frederico, and Napier 2009). Based on its adaptive function in dealing with threats, it seems possible that a consumer’s political orientation is likely to impact how he or she responds to a firm that adopts a position on a controversial social cause and thereby tacitly (or not so tacitly) communicates the firm’s own political leanings. Specifically, consumers may perceive a business’s given political spending as a threat to their conception of their worldview if it is interpreted as running in the opposite direction as their own orientation. Given that consumers are closely connected with brands (Batra, Ahuvia, and Bagozzi 2012), controversial actions undertaken by a business could be seen as a threat to a given consumer’s worldview, potentially being interpreted as either a threat to tradition (core of conservatism) or egalitarianism and change (core of liberalism). Further, research within marketing has found that consumer connections to brands are built upon narrative processing, with consumers incorporating brands into their own self-concept (Escalas 2004). Accordingly, it is possible that consumers perceive companies that engage in NECPA that runs against the consumer’s orientation as not only a threat to their worldview, but to their own identity or in-group as well.

Consistent with this, research has found deviance from perceived in-groups as being interpreted as a threat to those within the in-group (Greenberg and Jonas 2003; Jost et al. 2007). Further, political orientation can function as an in-group, protecting individuals from threats (Jost, Nosek, and Gosling 2008). For example, western authoritarianism served as a response to communism (McFarland et al. 1992), and Cold War era Russian adoption of conventionalism (notably, with authoritarian elements) in response to capitalism and western ideologies (Greenberg and Jonas 2003).

Given the extensive literature on how individuals cope with perceived threats to culture, in-groups, and norms, it seems plausible that previous routes taken by individuals to deal with threats and uncertainty may apply to perceived ideological threats as well. Within the context of NECPA, it is possible that these threat responses would lead consumers to respond less favorably toward a company that has financially
supported a controversial social cause. Theoretically, the consumer may treat such companies as an ‘out-group’ and make a conscious decision to avoid spending money or associating with the firm. Consistent with this line of reasoning, we forward the following hypothesis:

**H1:** NECPA will have a negative impact on brand attitudes and purchase intentions when it is inconsistent with consumer political ideology (H1a) and a positive impact on brand attitudes and purchase intentions when it is consistent with consumer political ideology (H1b).

Further, it seems likely that brand attitudes should predict any resulting changes in purchase intentions given their well-documented positive relationship (cf. Bennett and Harrel 1975). With this said, we propose H2, which predicts brand attitudes mediating the interaction of NECPA and political orientation on purchase intentions.

**H2:** Brand attitudes will mediate the NECPA x political orientation interactions on purchase intentions.

To test these hypotheses, we examined how consumers respond to a company that has undertaken one form of NECPA that could be perceived as being either consistent or inconsistent with the consumer’s political orientation, namely, a liberal or conservative stance on U.S. immigration policy.

**STUDY 1**

**Method**

Participants recruited from Amazon’s Mechanical Turk (n = 270) earned $1 for completing the survey. Participants read one of four news stories describing a fictitious clothing company (Kane Clothing) (as shown in Appendix A). In two of the conditions, participants read that the company had made a large donation ($500,000) in an attempt to influence immigration policy. Depending on the condition, the company adopted either a conservative political position (*anti-immigration condition*) or a liberal political position (*pro-immigration condition*). In a third condition, participants read that Kane Clothing was not interested in participating in the immigration debate (*not interested condition*). In the fourth condition, participants read a general story about Kane Clothing moving offices that made no mention of immigration issues (*pure control condition*).

To add realism, the news stories in the anti- and pro-immigration conditions were modeled on positions taken by leading politicians. Specifically, the anti-immigration condition was modeled after press releases made by John Boehner, the House of Representatives’ top Republican, whereas the pro-immigration condition was modeled after press releases made by Nancy Pelosi, the House of Representatives’ top Democrat.

After reading the news story, participants responded to a manipulation check by indicating their impression of the company’s political orientation (1 = very liberal, 7 = very conservative). Next, participants completed Lassar Mittal, and Sharma’s (1995) 10-item consumer brand attitudes scale (current study: α = .97), and indicated the likelihood they would purchase clothing from Kane Clothing (1 = very unlikely, 7 = very likely). Finally, participants provided demographic information and indicated their political orientation on a 7-point scale (1 = very liberal, 7 = very conservative).

**RESULTS**

**Manipulation Check**

To check our manipulation, we analyzed perception of the company’s political orientation using a one-way ANOVA. Results indicated a significant effect of condition on the perceived political orientation
of the company, $F(3, 269) = 90.28, p < .001$. Post-hoc Dunnett’s tests revealed that the control condition ($M = 3.88$) differed significantly ($p < .05$) from each of the remaining conditions: pro-immigration condition ($M = 2.47$); anti-immigration condition ($M = 5.73$); and not interested condition ($M = 4.40$). In addition, single-sample t-tests evaluating each mean’s departure from the scale midpoint of 4 (i.e., a neutral political orientation) revealed that the pro-immigration mean fell significantly below the midpoint (indicating the desired liberal orientation; $p < .001$) and the anti-immigration mean fell significantly above the midpoint (indicating the desired conservative orientation; $p < .001$). Though not anticipated, the mean in the not interested condition was also significantly above the midpoint ($p < .01$), indicating that deliberately not taking a stand on immigration was perceived to be in line with a somewhat conservative orientation. In sum, results provided good support for our manipulation of the company’s political orientation (via stance on immigration).

**Brand attitudes and purchase intentions as a function of firm’s position on immigration and participant’s political orientation (H1a, H1b).**

Next, we tested H1a and H1b, which proposed that consumers would respond negatively to NECPA that was in opposition to their own political orientation, and favorably to NECPA that was in line with their own political orientation. To test these hypotheses, we conducted a two-step regression analysis on both brand attitudes and purchase intentions. On step 1, we entered participants’ political orientation and three dummy codes comparing the control condition to each of the remaining conditions (comparison 1 = control (0) vs. pro-immigration (1); comparison 2 = control (0) vs. anti-immigration (1); comparison 3 = control (0) vs. not-interested (1)). On step 2, we entered the interaction between political orientation and each of the dummy-coded comparisons.

As shown on step 1 of Table 1, analyses on both brand attitudes and purchase intentions yield a significant negative main effect for the anti-immigration comparison (vs. control) and a significant positive effect of participants’ (conservative) political orientation. More importantly, as shown on step 2, both analyses also revealed two significant interaction terms (pro-immigration x political orientation; anti-immigration x political orientation). The nature of the interactions, depicted in Figure 1, provide strong support for H1a and marginal support for H1b. To follow-up these interactions, we next conducted floodlight analyses (Spiller et al., 2013) to determine the exact values of the moderator (political orientation) at which the relevant NECPA condition comparison was significant ($p < .05$). The shaded (Johnson-Neyman) regions depict the range of values of participants’ political orientation for which each NECPA comparison is significant.
TABLE 1

Study 1: Brand Attitudes and Purchase Intentions
As A Function of Firm’s Position on Immigration and Participant’s Political Orientation

<table>
<thead>
<tr>
<th></th>
<th>Brand Attitudes</th>
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<td>p</td>
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<td>Pro-Immigration x Political Orientation</td>
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<td>.01</td>
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</table>

Note: “not interested” comparison = control (0) vs. not-interested (1); “anti-immigration” comparison = control (0) vs. anti-immigration (1); “pro-immigration” comparison = control (0) vs. pro-immigration (1); political orientation (1 = very liberal, 7 = very conservative)
FIGURE 1

Brand Attitudes and Purchase Intentions as a Function Of Firm’s Position on Immigration and Participants’ Political Orientation

As shown in the top panels of Figure 1, the anti-immigration condition led to significantly lower brand attitudes and purchase intentions than the control condition when political orientation was less than 5.42 and 5.65, respectively (i.e., among less conservative and more liberal participants). Moreover, as shown in the bottom panels of Figure 1, the pro-immigration condition led to significantly lower brand attitudes and purchase intentions than the control condition when political orientation was above 4.19 and 3.67, respectively (i.e., among more conservative and less liberal participants). Taken together, these results provide strong support for H1a, as brand attitudes and purchase intentions were significantly lower among participants whose political orientation was at odds with the political orientation implied by Kane Clothing’s position on immigration.

Notably, as shown in the bottom left panel of Figure 1, the pro-immigration condition led to higher brand attitudes than the control condition when participants’ political orientation was below 1.77, indicating that extremely liberal participants held more favorable views of the company when it adopted a pro-immigration position (vs. control), providing limited support for H1b.

Brand Attitudes as Mediator of NECPA x Political Orientation Interactions on Purchase Intentions (H2)

Next, we tested the hypothesis that brand attitudes would mediate the NECPA x PO interactions on purchase intentions (H2) using Hayes’ (2013) PROCESS program (Model 7, with 5000 bootstrapped samples). As only two of the three possible interactions were significant (anti-immigration x PO and pro-immigration x PO), we restricted our test of H2 to these interactions. Results revealed a significant indirect effect of the each interaction term on purchase intentions through brand attitudes (anti-immigration x PO → brand attitudes → purchase intentions: 95% CI: .1878, .6963; pro-immigration x PO → brand attitudes → purchase intentions: 95% CI: -.6695, -.1801), supporting H2.
DISCUSSION

Study 1 established support for the concept that political ideology can moderate the relationship between CPA and brand attitudes, which in turn mediates the relationship on purchase intentions. However, this is the first time this effect has been empirically shown, leaving open the possibility that Study 1’s results could be an artifact of the context (NECPA related solely to immigration). Further, replication of Study 1’s results in a new context would provide substantial additional evidence for a robust NECPA effect and the proposed theoretical model attempting to explain NECPA.

In Study 2, fictional NECPA related to abortion policy is used as a context to replicate and further examine the robustness of the NECPA effect. This context is appropriate for three reasons. First, participants are unlikely to infer a stance on abortion policy to be in the economic self-interest of the firm, divorcing it from OFCPA, in which companies spend in self-interest to benefit the business. Secondly, the context adds realism, given recent high-profile litigation argued before the Supreme Court between companies such as Conestoga Wood Specialties Corp and Hobby Lobby on the grounds that federal reproductive health access requirements violate the companies’ religious rights (Conestoga Wood Specialties Corp v. Burwell 2014). Additionally, abortion rights align neatly with the typical conception of political ideology, with conservatives generally opposing abortion rights and liberals generally supporting abortion rights. This should allow participants to easily infer a political orientation from the companies NECPA.

STUDY 2

Method

Participants were recruited from Amazon’s Mechanical Turk (n = 297) and earned $1 for completing the survey. Participants read one of four news stories describing a fictitious clothing company (Kane Clothing) (as shown in Appendix B). In two of the conditions, participants read that the company had made a large donation ($500,000) in an attempt to influence abortion policy. Depending on the condition, participants learned the company adopted either a conservative political position (pro-life condition) or a liberal political position (pro-choice condition) on abortion rights. In a third condition, participants read that Kane Clothing was uninterested in participating in the abortion debate (not interested condition). In the fourth condition, participants read a general story about Kane Clothing moving offices that made no mention of abortion issues (pure control condition). To add realism, the news stories in the anti- and pro-abortion conditions were again modeled on positions taken by leading politicians.

After reading the news story, participants responded to a manipulation check asking them to indicate their impression of the companies’ political orientation (1 = very liberal, 7 = very conservative). Next, participants completed Lassar Mittal, and Sharma’s (1995) 10-item consumer brand attitudes scale (current study: α = .98), then indicated the likelihood they would purchase clothing from Kane Clothing (1 = very unlikely, 7 = very likely). Finally, participants provided demographic information, then indicated their political orientation on a 7-point scale (1 = very liberal, 7 = very conservative).
RESULTS

Manipulation Check

As a check our manipulation, we analyzed the company’s perceived political orientation using a one-way ANOVA. Results indicated a significant effect of condition on Kane Clothing’s perceived political orientation, \( F(3, 294) = 181.596, p < .001 \). Post-hoc Dunnett’s tests indicated that the pro-choice condition (M = 1.89) and pro-life condition (M = 6.14) differed significantly from the control condition (M = 3.78) (\( p < .001 \)) while the not interested condition did not (M = 3.96). Additionally, single-sample t-tests evaluating each mean’s perceived difference from the scale midpoint of 4 (i.e., a neutral political orientation) revealed the pro-choice mean as significantly below the midpoint (signifying the desired liberal orientation; \( p < .001 \)) and the pro-life mean as significantly over the midpoint (signifying the desired conservative orientation; \( p < .001 \)). In sum, results provide strong support for the desired manipulation of the company’s political orientation (via their abortion stance).

Brand attitudes and purchase intentions as a function of firm’s position on abortion and participant’s political orientation (H1a, H1b).

Next, we tested H1a and H1b, which again propose that consumers will respond negatively to NECPA that runs opposite to their own political orientation, and favorably to NECPA that falls in line with their own political orientation. To test these hypotheses, we conducted a two-step regression analysis on both brand attitudes and purchase intentions. On step 1, we entered participants’ political orientation and three dummy codes comparing the control condition to each remaining condition (comparison 1 = control (0) vs. pro-life (1); comparison 2 = control (0) vs. pro-choice (1); comparison 3 = control (0) vs. not interested (1)). On step 2, we entered the interaction between political orientation and each of the dummy-coded comparisons.

As shown on step 1 of Table 2, analyses on both brand attitudes and purchase intentions produce a significant negative main effect for the pro-life comparison (vs. control). More significantly, as shown on step 2, both analyses again reveal significant interactive terms (pro-life x political orientation; pro-choice x political orientation). The nature of the interactions, depicted in Figure 2, provide strong support for H1a and marginal support for H1b. To follow-up these interactions, we then conducted floodlight analyses (Spiller et al., 2013) in order to determine the exact value(s) of the moderator (political orientation) at which the relevant NECPA condition comparison was significant (\( p < .05 \)). The shaded (Johnson-Neyman) regions depict the range of values of participants’ political orientation for which each NECPA comparison is significant.
TABLE 2

Study 2: Brand Attitudes and Purchase Intentions
As A Function of Firm’s Position on Abortion and Participant’s Political Orientation

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<th>Brand Attitudes</th>
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<tr>
<td></td>
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<td>Pro-Choice x Political Orientation</td>
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<td>.01</td>
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Note: “not interested” comparison = control (0) vs. not-interested (1); “pro-life” comparison = control (0) vs. pro-life (1); “pro-choice” comparison = control (0) vs. pro-choice (1); political orientation (1 = very liberal, 7 = very conservative)
FIGURE 2

STUDY 2: Brand Attitudes and Purchase Intentions as a Function of Firm’s Position on Abortion and Participants’ Political Orientation

PANEL A: Pro-Life vs. Control

Note: CPA comparison is significant (p < .05) within the shaded (Johnson-Neyman) regions.

As shown in the top panels of Figure 2, the pro-life condition led to significantly lower brand attitudes and purchase intentions than the control condition when political orientation was less than 5.29 and 5.92, respectively. Further, as shown in the bottom panels of Figure 2, the pro-choice condition led to significantly lower brand attitudes and purchase intentions than the control condition when political orientation was above 3.71 and 3.62, respectively. Taken together, these results provide strong support for a replication of H1a, as brand attitudes and purchase intentions are significantly lower among participants whose political orientation is at odds with the political orientation implicitly interpreted by Kane Clothing’s position on abortion.

Notably, as shown in the bottom panels of Figure 2, the pro-choice condition led to higher brand attitudes and purchase intentions than the control condition when participants’ political orientation was below 2.21 and 1.98, respectively, showing very liberal participants held more favorable views of the company when it adopted a pro-choice position (vs. control), providing further limited support for H1b.

Brand Attitudes as Mediator of NECPA x Political Orientation Interactions on Purchase Intentions (H2)

Next, we again tested the hypothesis that brand attitudes would mediate the NECPA x PO interactions on purchase intentions (H2) using Hayes’ (2013) PROCESS program (Model 7, with 5000 bootstrapped samples). As only two of the three possible interactions were significant (pro-life x PO and pro-choice x PO), we restricted our test of H2 to these interactions. Results revealed a significant indirect effect of the each interaction term on purchase intentions through brand attitudes (pro-life x PO → brand attitudes → purchase intentions: 95% CI: .3113, .7274; pro-choice x PO → brand attitudes → purchase intentions: 95% CI: -.8750, -.3764), supporting H2.
DISCUSSION

Study 2 revealed that consumers are able to infer a firm’s political orientation from NECPA related to abortion policy. Results indicate that conservative consumers are likely to punish companies making donations they perceive to be liberal. Further, liberal consumers, like conservative consumers, are likely to punish companies undertaking NECPA they perceive to be conservative, but are also likely to reward firms that are undertaking NECPA they perceive to be consistent with their own liberal views, again providing limited support for H1b. Additionally, Study 2 expanded Study 1’s results by replicating Study 1’s results specific to immigration policy into abortion policy, providing evidence the effect is generalizable across policy areas.

GENERAL DISCUSSION

The involvement of business in politics has fundamentally changed due to deregulation of the United States’ campaign finance system by the Citizens United decision. This change has left prior research explaining part of the phenomena, but not new corporate political activity, NECPA, which involves firms spending resources to affect political causes, which are often controversial. To better understand this new trend, the present work tested a model suggesting brand attitudes and purchase intentions as a function of firm’s position on immigration (Study 1) and abortion (Study 2), as well as the participant’s political orientation.

Across two studies, the present work examined if and when consumers make product-related decisions based on ideological cues provided from NECPA, as well as the consumers’ own political orientation. Study 1 revealed that a consumers’ political orientation can predict brand attitudes and purchase intentions when given cues about the respective firm’s political ideology in the context of immigration policy. Study 2 replicated Study 1’s results in an entirely different policy area, abortion rights, suggesting that Study 1’s results were not a unique artifact dependent on the context of immigration policy, but rather a generalizable effect across many policy areas perceived to be unrelated to business strategy by consumers. The present work contributes novel public policy, business practitioner, and theoretical insights on NECPA, and raises many profitable questions for future research.

THEORETICAL CONTRIBUTIONS TO CONSUMER DECISION-MAKING, WORLDVIEW THREATS, AND CONSUMER IDENTITY

The literature on consumer response to threats and the resulting classification of people, brands, and products into in-group and out-group categories is well developed within research on consumer behavior. However, to the authors’ knowledge, the current research is the first to extend the phenomenon into the context of firms undertaking political activity. Further, this paper is the first to show companies can adopt an identifiable political orientation, and that the tacit adoption of that political orientation can have a measurable and significant effect on both consumer perceptions and the firms’ bottom line. In sum, the findings contribute to the literature by expanding the potential antecedents of firm in-group/out-group categorization into political orientation for the first time, allowing researchers to better understand the breadth and power of potential in-group/out-group categorization of firms by consumers.
IMPLICATIONS FOR POLICYMAKERS AND BUSINESS PRACTITIONERS

The current findings provide strong support for the proposition that political orientation, when combined with information about a given company making controversial political donations, has the ability to negatively impact consumer brand attitudes which in turn leads to lower purchase intentions. This is, to the authors’ knowledge, the first time this effect has been found, providing novel managerial and research implications. First, while NECPA has surged since the Citizens United (2010) decision, this research potentially gives practitioners making decisions related to NECPA reason to possibly reevaluate their strategy, especially if they believe it to be controversial enough to cause negative outcomes. In fact, the present research could lead firms to reconsider all NECPA not directly related to their own firm performance.

Secondly, the present research should provide novel insights to policymakers looking to form regulation to manage the newly deregulated campaign finance system in the United States. This is potentially of extreme importance to policy-makers, as polling has found roughly 80% of Americans disapprove of the Citizen’s United decision (Eggen 2010). The results of the present research addresses this problem by suggesting that public disclosure of campaign donations can hurt firms if their sufficiently controversial and departed from perceived normal business activities. Therefore, while policy aimed at restricting donation levels was found to violate the first amendment in the Citizen’s United decision, requiring firm disclosure of donations could allow markets, rather than the government, regulate NECPA. In sum, the present research suggests that transparency within the campaign finance system would in turn allow consumers to regulate NECPA through their purchasing behavior.

LIMITATIONS AND FUTURE DIRECTIONS

A variety of limitations should be considered when interpreting the present research. First, an unexpected finding within the present research was that positive effects for NECPA among those with the same political orientation as the firm (H1b) were only found for those considering themselves to be liberal. This finding is a bit counter-intuitive, as liberal consumers are generally associated with stronger views opposing most corporate involvement in politics. However, anecdotally, liberal consumers tend to be associated with many consumer behaviors that can be interpreted as having political motivations, such as farmer’s markets, co-op grocery stores, and hybrid cars. Thus, liberal consumers may follow a pattern of being more likely to engage in politicized purchasing than conservatives. However, the present research does not allow for a causation based explanation of this.

A second limitation of the present research is that our findings only extend explicitly to the two policy areas tested: immigration and abortion. While it is of our belief that the present findings are generalizable to most contexts consumers perceive to be outside the businesses financial interest. However, further research into the generalizability of this phenomenon would help to provide further evidence of this. A third potential limitation is our use of self-report measures to determine the influence of NECPA on firm metrics of financial success. Extending this research into a field setting could provide evidence that this effect is found not just in brand attitude and purchase intentions measures, but also in the actual share of a consumers purchase decisions.

While these limitations indicate a need for additional research, the present research contributes greatly both theoretically and practically to our understanding of consumer behavior and corporate involvement in politics. However, the true strength of this research lies in its real world application. The present research directly addresses a topic many see as one of the most important issues of the current era of public policy. Additionally, this research suggests a potential policy fix that addresses anonymous NECPA as a problem for both firms and consumers, and produces a potential fix – disclosure requirements – that would empower both firms and consumers to solve the problem without fundamentally limiting the
free speech of consumers or firms, making it a realistic, practical, and novel potential fix for all parties involved.
APPENDIX A: STUDY 1 STIMULI

Anti-Immigration Condition
Kane Corporation Donates to Anti-Immigration Advocacy Group
Albuquerque, New Mexico – Kane Clothing, a New Mexico based clothing manufacturer and retailer has publicly donated $500,000 to a group opposing immigration reform. The group, Americans Against Amnesty, is becoming the first large organization to publicly speak out against the reform that has been passed by the US Senate and has been endorsed by President Barack Obama. The bill would create a path to citizenship for foreign-born immigrants that are here illegally.

A spokesperson for Kane Clothing stated: “The American people want our border secured, our laws enforced, and the problems in our immigration system fixed to strengthen our economy. But they don’t trust Washington DC politician’s whose primary goal is to give citizenship to anyone without first enforcing the laws of the United States.

We cannot just stand by and give citizenship to anyone who wants it; it’s called the American Dream for a reason, and it’s because it’s for Americans, not illegal immigrants who sneak into this country illegally.”

Pro-Immigration Condition
Kane Corporation Donates to Pro-Immigration Advocacy Group
Albuquerque, New Mexico – Kane Clothing, a New Mexico based clothing manufacturer and retailer has publicly donated $500,000 to a group supporting immigration reform. The group, Americans for Amnesty, is becoming the first large organization to publicly speak out for the reform that has been passed by the US Senate and has been endorsed by President Barack Obama. The bill would create a path to citizenship for foreign-born immigrants that are here illegally.

A spokesperson for Kane Clothing stated: “Leaders in city halls and state capitols nationwide know that immigration reform is not only the right thing to do, it is a necessary step we must take to protect our workforce, reduce our deficit, and grow our economy. These are the basic principles that are embedded into the fabric of America’s history and will ensure its future strength. We must act to ensure that Congress honors the values, heritage, and hope that makes America more American.

We cannot just stand by and allow millions of people living in America illegally, that work every day for the American Dream and contribute to American society stay in the shadows where that dream can never come true. We used to be a country built on inclusion and the American Dream, and expanding amnesty will accomplish just that.”

Not Interested Condition
Kane Clothing Uninterested in Trying to Influence Immigration Debate
Albuquerque, New Mexico – Kane Clothing, a New Mexico based clothing manufacturer and retailer has publicly announced it will not donate money to groups asking for money in the ongoing immigration debate, even though two of its competitors did just that this week: Dunne Clothing donated $500,000 to a pro-immigration group “Americans for Amnesty” while Brugman Clothing donated $500,000 to an anti-immigration group “Americans against Amnesty”.

A spokesman for Kane Clothing stated: “It’s not our place to be spending shareholder’s money on political issues. We have elections to elect officials to figure this type of thing out. That is how America works and has always worked. It is not our company’s job to spend shareholder funds to influence or try and change political issues. It is our job to create value for our shareholders, employees, and community.”
Pure Control Condition
Local Company Moves Offices

Albuquerque, New Mexico – Kane Clothing, a New Mexico based clothing manufacturer and retailer finished moving their company’s headquarters from Nash St to Plamondon St, a three-block move.

A spokesperson for Kane Clothing explained the move, stating: “Our new location is better positioned for our shipping, as it is located on a main road which is easier for our trucks to travel on.”

The spokesperson also made it clear that the move isn’t to a bigger or more expensive office, as the company is not at a point yet where they are expanding, although he did note that the new offices have a spare parking lot that could be built over. So, if you’re heading to buy clothes from Kane Clothing, be aware of the move.
APPENDIX B: STUDY 2 STIMULI

Pro-Life Condition
Kane Corporation Donates to Pro-Life Advocacy Group

Albuquerque, New Mexico – Kane Clothing, a New Mexico based clothing manufacturer and retailer has publicly donated $500,000 to a group supporting a law making abortion illegal in the state, even in cases where the mother's life is danger. The group, Americans for Life, is becoming the first large organization to publicly speak out for the law in New Mexico.

“We have had a consistent and clear position regarding the morality of abortion,” Kane clothing’s spokesperson wrote. “Abortion is inconsistent with morality and should be avoided. It is clear that each person is created at conception and abortion as birth control is not compatible with the call of a moral life. It is for this reason that Kane Corporation cannot stand by and let the murder of unborn life continue.”

Pro-Choice Condition
Kane Corporation Donates to Pro-Choice Advocacy Group

Albuquerque, New Mexico – Kane Clothing, a New Mexico based clothing manufacturer and retailer has publicly donated $500,000 to a group supporting a law making abortion legal in virtually all situations. The group, Americans for Choice, is becoming the first large organization to publicly speak out for the law in New Mexico.

“Abortion has been safe in the U.S. since the FDA approved its use many years ago.” Kane Clothing’s spokesperson wrote. “It has helped ensure that women are able to make their own private medical decisions, and it has expanded access to reproductive health care. It is for this reason that Kane Corporation cannot stand by and let the assault on women's rights continue.”

Not Interested Condition
Kane Clothing Uninterested in Trying to Influence Abortion Debate

Albuquerque, New Mexico – Kane Clothing, a New Mexico based clothing manufacturer and retailer has publicly announced it will not donate money to groups asking for money in the ongoing abortion debate, even though two of its competitors did just that this week: Dunne Clothing donated $500,000 to a pro-choice group “Americans for Choice” while Brugman Clothing donated $500,000 to a pro-life group “Americans for Life”.

A spokesperson for Kane Clothing stated: “It’s not our place to be spending shareholder’s money on political issues. We have elections to elect officials to figure this type of thing out. That is how America works and has always worked. It is not our company’s job to spend shareholder funds to influence or try and change political issues. It is our job to create value for our shareholders, employees, and community”, they said.
Pure Control Condition
Local Company Moves Offices

Albuquerque, New Mexico – Kane Clothing, a New Mexico based clothing manufacturer and retailer finished moving their company’s headquarters from Nash St to Plamondon St, a three block move.

The spokesman for Kane Clothing explained the move, stating: “Our new location is in a better location for our shipping, as it is located on a main road which is easier for our trucks to travel on.” They were also clear that the move isn’t to a bigger or more expensive office, as the company is not at a point yet where they are expanding, although he did note that the new offices have a spare parking lot that could be built over. So, if you’re heading to buy clothes from Kane Clothing, be aware of the move.
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A SOCIAL IDENTITY PERSPECTIVE ON THE LEGALIZATION OF MARIJUANA IN THE UNITED STATES

Travis Simkins and Stephanie Geiger-Oneto, University of Wyoming

ABSTRACT

In the last few years, the perception of marijuana use has shifted leading to legalization of medical marijuana in 23 states and the D.C. and recreational marijuana in four states and the D.C. At least 10 states are considering legalizing recreational marijuana in the near future. What factors account for this shift if only 7% of the adult population use marijuana? The present study uses social identity theory to investigate: (1) motivating factors behind support for legalization if not for personal consumption (2) the role of individual vs. community benefits when deciding to support/oppose legalization and (3) differences in users and non-users behaviors related to legalization. Results indicate that factors other than personal use impact attitudes towards marijuana legalization. Also, non-users were found to significantly differ from users when examining non-normative behaviors related to supporting/opposing legalization.

INTRODUCTION

The perception of marijuana use is undergoing a fundamental shift in our society. Currently, the use of marijuana for medical purposes is legal in 23 states and the District of Columbia (see Table 1). In addition to the one year anniversary of the first recreational marijuana dispensaries opening in Colorado, the use of recreational marijuana is now legal in Washington (2012), Alaska (2014), Oregon (2014), and Washington D.C (2014). In each of these cases, the measures passed by the ballot initiative process where a new law or constitutional amendment is placed on the ballot by a citizens petition (Ferner 2014a; Initiative and Referendum Institute 2014). However, Congress, which has oversight of D.C.’s affairs, has in effect barred the implementation of this measure in the District of Columbia for the foreseeable future as the plant and its derivatives remain banned by the federal government (Feldman 2014).

Table 1. 23 Legal Medical Marijuana States and DC

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<tr>
<td>Alaska</td>
<td>1998</td>
<td>Ballot Measure 8 (58%)</td>
</tr>
<tr>
<td>Arizona</td>
<td>2010</td>
<td>Proposition 203 (50.13%)</td>
</tr>
<tr>
<td>California</td>
<td>1996</td>
<td>Proposition 215 (56%)</td>
</tr>
<tr>
<td>Colorado</td>
<td>2000</td>
<td>Ballot Amendment 20 (54%)</td>
</tr>
<tr>
<td>Connecticut</td>
<td>2012</td>
<td>House Bill 5389 (96-51 House, 21-13 Senate)</td>
</tr>
<tr>
<td>DC</td>
<td>2010</td>
<td>Amendment Act B18-622 (13-0 vote)</td>
</tr>
<tr>
<td>Delaware</td>
<td>2011</td>
<td>Senate Bill 17 (27-14 House, 17-4 Senate)</td>
</tr>
<tr>
<td>Hawaii</td>
<td>2000</td>
<td>Senate Bill 862 (32-18 House; 13-12 Senate)</td>
</tr>
<tr>
<td>Illinois</td>
<td>2013</td>
<td>House Bill 1 (61-57 House; 35-21 Senate)</td>
</tr>
<tr>
<td>Maine</td>
<td>1999</td>
<td>Ballot Question 2 (61%)</td>
</tr>
<tr>
<td>Maryland</td>
<td>2014</td>
<td>House Bill 881 (125-11 House; 44-2 Senate)</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>2012</td>
<td>Ballot Question 3 (63%)</td>
</tr>
<tr>
<td>Michigan</td>
<td>2008</td>
<td>Proposal 1 (63%)</td>
</tr>
<tr>
<td>Minnesota</td>
<td>2014</td>
<td>Senate Bill 2470 (46-16 Senate; 89-40 House)</td>
</tr>
<tr>
<td>Montana</td>
<td>2004</td>
<td>Initiative 148 (62%)</td>
</tr>
<tr>
<td>16</td>
<td>Nevada</td>
<td>2000</td>
</tr>
<tr>
<td>----</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>17</td>
<td>New Hampshire</td>
<td>2013</td>
</tr>
<tr>
<td>18</td>
<td>New Jersey</td>
<td>2010</td>
</tr>
<tr>
<td>19</td>
<td>New Mexico</td>
<td>2007</td>
</tr>
<tr>
<td>20</td>
<td>New York</td>
<td>2014</td>
</tr>
<tr>
<td>21</td>
<td>Oregon</td>
<td>1998</td>
</tr>
<tr>
<td>22</td>
<td>Rhode Island</td>
<td>2006</td>
</tr>
<tr>
<td>23</td>
<td>Vermont</td>
<td>2004</td>
</tr>
<tr>
<td>24</td>
<td>Washington</td>
<td>1998</td>
</tr>
</tbody>
</table>

(RProCon.org.org, 2015)

Rhode Island is the next state likely to legalize recreational marijuana due in large part strong grassroots support and the prospect of tax revenue generation for the struggling state with one of the highest unemployment rates in the country (Malinowski 2014). It would be the first state to do so via a state legislative proposition (or "referred" measure) placed on the ballot directly by the legislature (Initiative and Referendum Institute 2014; Kampaia 2014).

There is also a real possibility that five more states will legalize recreational marijuana between now and 2017 including: Delaware, Hawaii, Maryland, New Hampshire, and Vermont (Kampaia 2014). Additionally, in November 2016, at least five other states including Arizona; California; Maine; Massachusetts; Nevada; and potentially Missouri are expected to vote on similar ballot initiatives (Kampaia 2014). By the end of 2017 recreational marijuana could technically be legal in 15 states and D.C.

As marijuana continues to transition from illicit to allowed, there is growing interest throughout government, industry, and academia concerning the underlying processes that are driving these changes as well as the subsequent societal consequences and implications of those changes. One process of interest to researchers involves the passing of marijuana related legislation. Despite the fact that previous research estimates that approximately 7% (Saad 2013) of the U.S. population regularly use marijuana, typically defined as once a week or more (Lyons et al. 2004), initiatives legalizing marijuana are passing by a majority vote. This leads to following research questions: (1) what are the motivating factors behind supporting marijuana legalization if not for personal consumption? (2) what is the relative role of individual vs. community benefits when deciding to support/oppose marijuana legalization and (3) how do users and non-users differ when examining behaviors related to marijuana legalization?

In order to investigate these questions, the present research will proceed in the following manner. First, the authors will provide a brief summary of existing developments in the marijuana industry. This will be followed by an examination of both medical and recreational marijuana and the markets they are fueling. Next, the authors examine current trends in the marijuana industry and provide a summary of the arguments both for and against the legalization of marijuana. Fourth, social identity theory will be employed to explain why consumers might support/oppose the legalization of marijuana using non-normative behaviors despite the fact that they do not currently consume it. Future areas of research will also be considered.

This study contributes to the existing body of literature by investigating the sociological motivations used by consumers to make decisions about policy changes and legislation that may or may not directly benefit them. Using social identity theory allows researchers to understand the relationship between one’s identity and voting behavior at a more macro level than has been previously researched.
BACKGROUND

For years, Amsterdam has been a mecca for travelers who find the idea of smoking marijuana in public, perhaps in front of a passing cop to add to the experience, especially appealing. In the same way, legal marijuana is fueling a tourism boom in Colorado. For example, on 4/20 (4:20 being a slang term that refers to the consumption of cannabis), 2014 in the Mile High City, some 37,000 people crammed an open-air expo to sample strains vying for the 2014 Cannabis Cup (Denver Cannabis Cup, 2014). The event allows judges from around the world to sample and vote for their favorite marijuana varieties. It also includes live music, comedy and an expo for marijuana-related products from cannabis-oriented businesses.

Over the past year, a number of entrepreneurial ventures like So Mile High offers “marijuana expeditions” to dispensaries, glass shops and live growing operations in Colorado. The site also suggests the “Top 3 Munchie Destinations” in town and “the best marijuana friendly” bed-and-breakfast. (Briggs 2014). Year-over-year, there was a 73 percent traffic increase at Hotels.com among shoppers hunting for Denver rooms during the 4/20 festivals. Additionally, from Jan. 1, 2014, when legal weed sales began in Colorado, to July 31, year-over-year room searches at Hotels.com were up by 37 percent for Denver and by 17 percent for all Colorado (Briggs, 2014).

Market

Although in the U.S., marijuana remains illegal at the federal level under the Controlled Substances Act, as mentioned medical marijuana is legal in 23 states and the District of Columbia, and recreational marijuana is legal in four states and the District of Columbia (NORML 2014).

Medical and Recreational Marijuana

Marijuana can be both a medicine and a recreational drug. Medical marijuana has a higher Cannabidiol (CBD) content while recreational marijuana has a higher Tetrahydrocannabinol (THC) content (Crop King Seeds 2014). Cannabidiol is the major nonpsychoactive component of cannabis sativa. CDB is considered to have a wider scope of medical applications than THC (Campos et al. 2012). Simply stated, CBD cannot get an individual “high”. While disappointing to recreational users, this unique feature of CBD is a major factor in what makes it appealing as a medicine.

Who then is considered a medical marijuana user? One simplistic definition is "someone that uses cannabis to treat or relieve a medically recognized condition" (Colorado.gov 2014). In addition, the purchase of medical marijuana requires a state red card, which can only be obtained with a prescription/recommendation from a doctor certifying that a patient suffers from a debilitating medical condition that may benefit from the use of marijuana (Colorado.gov 2014). Medical marijuana patients can obtain marijuana from a licensed center, a primary care giver, or grow the drug themselves (Colorado.gov 2014).

Obtaining a medical marijuana card involves some annual costs, typically between $45 and $75 for a doctor’s visit and $15 for an application fee (Hickey 2014). However, these costs can be made back quickly when factoring in the additional taxes and general price hikes associated with recreational marijuana. For sales of marijuana around the Denver area, an additional 20-25% sales tax is added to the cost of recreational marijuana while medicinal marijuana is taxed at approximately 10% (Hickey 2014). Medical patients also have a larger variety of products to choose from including edibles (marijuana mixed with foodstuffs), tinctures (marijuana dissolved in alcohol), and other products infused with marijuana (Denver Dispensaries 2014).

Recreational marijuana users look for novel states of consciousness that are “pleasant and interesting” (Rosenthal 2005). These users seek different highs for different circumstances and to create different moods as opposed to people who use marijuana for relief from psychological and physiological
ailments. In contrast, medicinal patients typically seek milder varieties of marijuana than recreational users that are more potent in the treatment of their symptoms but deliver a milder psychoactive experience (Rosenthal 2005). Individuals do not need a prescription to purchase marijuana at recreational dispensaries. The only requirement is that one must be over 21 years old and have a legal ID (Urban 2014). Interestingly, recreational marijuana centers are expressly forbidden from making any kind of health or medical claims while medical dispensaries, are not allowed to talk about marijuana in recreational terms (Urban 2014).

Experts have valued the medical marijuana market at over $1.7 billion and expect that number to at least double by 2016 (Németh and Ross 2014). Colorado has more than 130,000 registered patients, up from 7,000 in 2008, and Oakland’s (CA) Harborside Health Center clinic alone counts 110,000 registered patients (Pugh 2011; Roberts 2013).

After six months of legal recreational marijuana sales in Colorado, the preliminary statistics point to some interesting trends. From January 1st through April 30th recreational marijuana sales were $69,527,760 (extrapolated from tax figures) and medical marijuana sales were $132,950,930 (extrapolated from tax figures) for a total of $202,478,690 in four months (Baca 2014). Year-end estimates put the combined numbers closer to $47.7 million in tax revenue off over $400 million in total sales from 130.3 metric tons of marijuana sold (Sanchez 2014). However, the marijuana industry is predominantly a “cash only” market. Therefore, these figures may be underestimated considering that a significant percentage of businesses underpay tax on business income when the primary medium of exchange is cash (Morse, Karlinsky, and Bankman 2009).

Current Trends

The marijuana industry's growth is can be attributed to a number of factors. First, it coincides with a widespread shift in the public's attitude toward the substance (Ferner 2014b). One consequence of this attitude shift that marijuana’s negative stigma is diminishing. Furthermore, individuals are increasingly using the plant's medicinal properties to treat symptoms even in young children. For example, Colorado has experienced an influx of “marijuana refugees” over the last year. These “refugees” are families relocating to Colorado so children can use cannabis oil to fight debilitating neurological diseases like infantile spasms, intractable epilepsy, and Dravet Syndrome (a type of epilepsy that kills up to one-fifth of sufferers before age 20) (Philipps 2014). Similarly, there has been an increase in arrests of individuals trafficking marijuana out of Colorado to treat their sick children (Pickert 2014). Further evidence outside the state of Colorado includes recent efforts of a coalition of conservative Latter-Day Saint (Mormon) mothers in Utah recently lobbying for safe access to cannabis oil for their epileptic children (Schwartz 2013).

The market for ancillary products, such as security equipment, cultivation tools, apps and paraphernalia, is also driving industry growth. Steve Berg, a former managing director of Wells Fargo Bank and editor of “The Second Edition of the State of Legal Marijuana Markets Report” stated that "this industry is professionalizing and seeing an influx of professionals from other industries… more and more investors are coming in and financing these businesses, which have more and more markets to serve." (Schwartz 2013). In short, not only users but also entrepreneurs and private investors are flocking to and driving growth in cannabis markets.

Legalization

Advocacy for the legalization of cannabis has also been well-documented (Englesman 2003; Wodak et al. 2002; Limb, 2012) as have the arguments against (Caulkins et al. 2014; Wilson 1991). Advocates for legalization argue that maintaining the criminal status of cannabis: (1) encourages criminal activity; (2) necessitates contact with illicit drug sellers; (3) results in taxation losses; and (4) prohibits individuals from taking advantage of the positive medical benefits of the drug (Clark, Capuzzi, and Fick
2011, Greydanus and Patel 2006; Shanahan and Ritter 2014). See Table 2 for a summary of the potential medical benefits of marijuana.

**Table 2. Potential Benefits of Marijuana Based On Research Studies**

<table>
<thead>
<tr>
<th>Remedy for inflammation</th>
<th>Treatment for dystonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remedy for diarrhea (as in Crohn’s disease)</td>
<td>Treatment for rheumatoid arthritis</td>
</tr>
<tr>
<td>Treatment for multiple sclerosis</td>
<td>Treatment for emesis due to chemotherapy</td>
</tr>
<tr>
<td>Treatment for glaucoma</td>
<td>Improvement of anorexia in AIDS patients</td>
</tr>
<tr>
<td>Treatment for epilepsy</td>
<td>Management of inflammatory bowel disease</td>
</tr>
<tr>
<td>Treatment for Huntington’s disease</td>
<td>Reduce brain infarct size</td>
</tr>
<tr>
<td>Beneficial effect on atherosclerosis</td>
<td>Reduce cardiac reperfusion injury</td>
</tr>
<tr>
<td>Block negative memories in posttraumatic stress disorder</td>
<td>Remedy for pain (including chronic pain and neuropathic pain)</td>
</tr>
<tr>
<td>Adjuvant treatment for prostate carcinoma</td>
<td></td>
</tr>
</tbody>
</table>

(Clark et al. 2011; Englesman 2003; Greydanus and Patel 2006; Limb et al. 2012; Wodak et al. 2002)

Another argument for legalizations centers on the cost of enforcement for marijuana related legal infractions. There has been a three-fold increase in the number of arrests for possession of small amounts of the drug from 1991, the modern low point, to 2012 (over 658,000 arrests) (Knapp 2014). This figure constitutes 42 percent of all drug arrests and 5.4 percent of total arrests. It is estimated that these marijuana related arrests cost law enforcement roughly $3.6 billion in 2012 alone (Knapp 2014).

Over 50 percent of inmates currently in federal prison are incarcerated for drug offenses, according to the Federal Bureau of Prisons (Miles 2014). Between October 2012 and September 2013, 27.6 percent of drug offenders were locked up for crimes related to marijuana, followed by powder cocaine (22.5 percent), methamphetamine (22.5 percent), crack cocaine (11.5 percent), heroin (8.8 percent) and other drugs (7.2 percent), according to the Sentencing Commission (Miles 2014). Recently, the Obama administration has portrayed the country’s tough drug policies as unjust and promised to seek early release or lighter initial sentences for low-level, nonviolent drug offenders. Additionally, lawmakers in the House and Senate have introduced identical bills that seek to reduce the mandatory prison sentences for certain drug crimes, now set at 5, 10 and 20 years, in half (Miles 2014).

More importantly, these figures exclude the financial and social costs to those who were arrested and to their communities (Knapp 2014; Reuter 2014). Aside from the expenses inextricably tied to legal trouble (i.e. paying for a lawyer, bail, rehabilitation, etc.) the person ticketed or arrested carries a damaging stain on their record, threatening their ability to: (1) procure employment; (2) compete in the job market; and (3) obtain financial aid for college (Reuter 2014). This is particularly problematic for low-income minorities who, as the ACLU has reported, are most commonly arrested for marijuana and who can least afford it and are in the most need of aid like student loans (Knapp 2014). Furthermore, in a recent poll, Galston and Dionne found that 72% of Americans agreed that “government efforts to enforce marijuana laws cost more than they are worth” (2013, p. 7). In conjunction, another poll showed that 73% of adults support making medical marijuana legal, but 44% would be “somewhat or very concerned if a dispensary opened near their home” (Németh and Ross 2014, p. 7).

On the other side, advocates of prohibition argue that this practice leads to lower consumption of cannabis, better health status, and improved productivity (Shanahan and Ritter 2014). In this regard, extant research has examined the negative effects of marijuana usage on: (1) the cost impacts of use (Donnelly, Hall, and Christie 2000; Williams 2004); (2) educational attainment (McCaffrey et al. 2010); and (3) driving (Mann et al. 2007). Additionally, psychologists have established several medically diagnosable mental
conditions associated with marijuana use. These include cannabis use disorders (i.e. abuse and dependence) and cannabis-induced disorders (i.e. intoxication, delirium, psychotic disorders with delusions and/or hallucinations, anxiety, etc.) (American Psychiatric Association 2013). In short, these individuals contend that the potential benefits of legalization simply do not outweigh the costs. See Table 3 for potential adverse effects of marijuana consumption from the DSM V.

Table 3. Potential Adverse Effects of Marijuana

<table>
<thead>
<tr>
<th>Addiction (physiological)</th>
<th>Withdrawal syndrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overt precipitation of psychosis or depression</td>
<td>Variety of negative psychological reactions: anxiety, hallucinations, violent behavior, depression, fear</td>
</tr>
<tr>
<td>Amenorrhea</td>
<td>Insomnia (can be chronic and improved with trazodone)</td>
</tr>
<tr>
<td>Memory spans that are impaired</td>
<td>Blunted reflexes</td>
</tr>
<tr>
<td>Confusion and cognition impairment</td>
<td>Flu-like reaction (after stopping this drug after 24–60 hours, lasting up to 2 weeks)</td>
</tr>
<tr>
<td>Alteration of time perception</td>
<td>Amotivational syndrome (lose interest in school or work success)</td>
</tr>
<tr>
<td>Physiologic responses can include cough, bronchospasm, bronchitis</td>
<td>Dependence (psychological) and with heavy use, tolerance</td>
</tr>
<tr>
<td>Immunologic dysfunction</td>
<td>Cardiovascular damage</td>
</tr>
<tr>
<td>Pulmonary damage</td>
<td>Weight gain from overeating and reduced physical activity</td>
</tr>
</tbody>
</table>


Extant literature does not yet adequately address fundamental shifts regarding the transition of the use of marijuana from an illicit behavior to a legal one. Social Identity Theory will provide the lens to examine why consumers engage in certain behaviors to support the legalization of marijuana.

Social Identity Theory (SIT)

A social identity is a person’s knowledge that he belongs to a social category or group (Hogg, and Abrams 1988). Through a social comparisons process, individuals categorize persons who are similar to themselves as the “in-group” and persons who differ as the “out-group” (Stets and Burke, 2000). In addition, the social categories in which individuals place themselves are parts of a structured society and exist only in relation to other contrasting categories (Hogg and Abrams, 1988). Moreover, the social categories precede individuals as every individual is born into a pre-structured and existing society(ies). In other words, social categories or groups are not only used to create one’s social identity but these categories are often ranked in terms of their status within the larger society. However, every person, over the course of their life, is a member of a unique combination of social categories. For example, one might simultaneously belong to groups based on race, gender, familial role (mother/father), career choice (ex. Academic, medical professional, etc.). Therefore, the set of social identities making up an individual’s self-concept is completely unique (Stets and Burke, 2000).

According to Social Identity Theory, certain intergroup behaviors can be predicted based on perceived group status differences, the perceived legitimacy and stability of those status differences, and the perceived ability to move from one group to another (Tajfel and Turner 1979). While status seeking is universal, previous research has shown that attaining status is more difficult for some individuals than others. Status seeking, as previously defined, refers to efforts aimed at gaining membership and distinction within an individual’s social group. Once group membership is obtained, individuals often employ strategies to improve their own status as well as improve the overall status of group. According to SIT, people get self-esteem from social groups and will pursue goals which increase or maintain a positive self-
identity. In order to achieve a positive social identity, individuals in a low status group may engage in several possible strategies for seeking higher status.

**Status Seeking Strategies**

First, people may individually/collectively engage in normative behaviors (approved actions within a social system) to increase their status. For example, individuals often demonstrate an in-group bias, or evaluate in-group members more favorably than out-group members. Favoring in-group members satisfies an individual’s need for positive self-esteem while simultaneously creating a positive social identity for the group as a whole (Tajfel and Turner 1979). By systematically favoring in-group members, individuals are able to redistribute resources during negotiations (Ball and Eckel 1988, 1996) so that the perceived status of the in-group increases relative to the out-group. In other words, people may engage in status seeking behaviors that exclude members of an out-group so that the perceived status of the in-group, and its members, increases. Second, people may also choose to engage, either individually or collectively, in non-normative behaviors (such as protesting or signing petitions) to challenge their status position within a social hierarchy. Finally, low status individuals may choose to simply accept their status position and behave accordingly (Boen and Vanbeselaere 2002).

**Marijuana Users and Social Identity Theory (SIT)**

Social identity theory is well positioned to examine the underlying motives of marijuana users. Deviance describes an action or behavior that violates social norms, including formally enacted rules (e.g., crime), as well as informal violations of social norms (e.g., rejecting folkways and mores) (Clinard and Meier, 1968). Since the 1960’s, marijuana use has been associated with deviant subcultures (i.e. hippies). Using marijuana was, and still is, illegal in most of the US and therefore users are considered deviant or of lower status than non-users. As marijuana use becomes a more integral part of a group’s identity the social distance between that group and society at large increases (Bryant 2014).

Previous research has also established that societal members that find themselves in a statistical minority may experience feelings of status insecurity and engage in behaviors that they perceive as increasing their social status (Geiger-Oneto et al. 2013; Wyatt et al. 2009). This specifically applies to marijuana users. Currently, most marijuana users lack the legitimate means to improve their status within society because legalization has only occurred in a handful of states. Although voting for the legalization of marijuana would be considered a legitimate method of increasing their group’s status not all individuals have this opportunity as many states have not yet begun to consider marijuana legalization as an appropriate policy change. Therefore, using SIT, it is expected that marijuana users are more likely than non-users to engage in non-normative behaviors associated with the legalization of marijuana. Based on the discussion above, we therefore propose the following:

**H1:** Marijuana users will engage in more non-normative behaviors than non-marijuana users.

**METHOD**

**Sample and Data Gathering**

In order to test the above hypotheses respondents (average age: 23) were recruited at a large public university. A total of 259 students completed a questionnaire which asked about their opinions on the legalization of marijuana, overall attitude towards marijuana use, current marijuana usage (if applicable) and demographics. Fifty-six percent of the respondents were females (44% male). In terms of race and/or ethnicity, 87% of the respondents were Caucasian, 1% African-American, 3% Hispanic, 6% Asian and 3% reported their race/ethnicity as “other.” Seventy-six percent of respondents were registered to vote in their state. Fifty-three percent reported their political affiliation as Republican, 19% Democrat, and 27% reported being Independent. In terms of marijuana usage, 53% of respondents reported that had used marijuana in
their lifetime, 39% had used marijuana in the last year (61% had not) and 31% reported that they currently use marijuana.

**Measures**

**Dependent Variables**

Support/Oppose the Legalization of Medical and/or Recreational Marijuana

The dependent variables in the first set of analyses consisted of two items that simply asked respondents to indicate whether they would support (=1) or oppose (=0) the legalization of medical or recreational marijuana.

Non-Normative Behaviors

Respondents were asked to indicate how likely they would be, using a 1 “Extremely Unlikely”- 7 “Extremely Likely” scale to engage in five non-normative behaviors (as defined by Boen and Vanbeselaere 2002) related to the legalization of marijuana. See table 1 for descriptive statistics and complete list of items.

**Independent Variables**

Perceived Benefits or Consequences

Respondents were asked to evaluate a list of perceived benefits or consequences of marijuana legalization in terms of whether they believe each item was 1 “Extremely Unlikely to Occur, to 7 “Extremely Likely to Occur” if either medical or recreational marijuana were legalized. In addition, respondents were asked to list any other reasons individuals may oppose or support the legalization of either medical or recreational marijuana that were not listed in the questionnaire. See table 4 for descriptive statistics and complete list of items.

<table>
<thead>
<tr>
<th>Medical Marijuana</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would use medical marijuana if it became legal</td>
<td>2.98</td>
<td>2.18</td>
</tr>
<tr>
<td>Increased tax revenue</td>
<td>5.11</td>
<td>1.64</td>
</tr>
<tr>
<td>Other economic growth</td>
<td>4.43</td>
<td>1.63</td>
</tr>
<tr>
<td>Decreased crime overall</td>
<td>3.50</td>
<td>1.77</td>
</tr>
<tr>
<td>Decreased law enforcement costs</td>
<td>3.65</td>
<td>1.86</td>
</tr>
<tr>
<td>Increased number of traffic accidents</td>
<td>3.97</td>
<td>1.70</td>
</tr>
<tr>
<td>Increased marijuana dependency &amp; addiction</td>
<td>4.00</td>
<td>1.90</td>
</tr>
<tr>
<td>Increased drug use overall</td>
<td>4.42</td>
<td>1.87</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recreational Marijuana</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would use recreational marijuana if it became legal</td>
<td>2.97</td>
<td>2.41</td>
</tr>
<tr>
<td>Increased tax revenue</td>
<td>5.54</td>
<td>1.69</td>
</tr>
<tr>
<td>Other economic growth</td>
<td>4.99</td>
<td>1.63</td>
</tr>
<tr>
<td>Decreased crime overall</td>
<td>3.53</td>
<td>1.93</td>
</tr>
<tr>
<td>Decreased law enforcement costs</td>
<td>3.72</td>
<td>1.98</td>
</tr>
<tr>
<td>Increased number of traffic accidents</td>
<td>4.50</td>
<td>1.84</td>
</tr>
<tr>
<td>Increased marijuana dependency &amp; addiction</td>
<td>4.47</td>
<td>1.99</td>
</tr>
<tr>
<td>Increased drug use overall</td>
<td>4.78</td>
<td>1.94</td>
</tr>
</tbody>
</table>
Non-Normative Behaviors

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the legalization of marijuana with others</td>
<td>4.86</td>
<td>1.82</td>
</tr>
<tr>
<td>Attend a rally, protest, or other public meeting dealing with the</td>
<td>2.43</td>
<td>1.81</td>
</tr>
<tr>
<td>legalization of marijuana</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sign a petition for or against the legalization of marijuana</td>
<td>3.64</td>
<td>2.17</td>
</tr>
<tr>
<td>Display a bumper sticker, wear an article of clothing, display a yard</td>
<td>1.95</td>
<td>1.58</td>
</tr>
<tr>
<td>sign, etc. in favor or opposing the legalization of marijuana</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post your opinions or views regarding the legalization of marijuana on a</td>
<td>2.15</td>
<td>1.72</td>
</tr>
<tr>
<td>social media website</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N=259

RESULTS

Relative Influence of Individual vs. Community Benefits

Data were first analyzed using logistic regression to uncover motivations for supporting the legalization of either medical or recreational marijuana. The model regressed attitude towards marijuana legalization (1=support, 0=oppose) against the independent variables of interest (benefits/consequences of legalizing marijuana, including personal use). Separate models were used for the analysis of the legalization of medical and recreational marijuana. In addition, two models were analyzed for both medical and recreational marijuana. In the first model, only personal consumption was used as an independent variable. In the second model, personal consumption was combined with the other perceived community benefits/consequences of legalizing marijuana. Model fit statistics were then compared to determine whether the additional variables significantly improved the amount of variance explained. All coefficients were transformed into odds ratios to ease with interpretation. See table 5 for a list of regression coefficients for each of the models tested.

Results from the first model (-2LL=170.5, R²=.26) indicate a significant relationship between support for the legalization of medical marijuana and an individual’s intent to use medical marijuana (B=1.08, p<.000). In other words, as an individual’s likelihood to consume medical marijuana increased by one point (on a 1-7 scale) he/she is approximately 3 times more likely to support its legalization. Similar results were found for the legalization of recreational marijuana such that a significant positive relationship was found between individual intention to use recreational marijuana upon legalization and their support for legalization (B=.88, p<.000). As the likelihood of using recreational marijuana increased by 1 point an individual is 2.4 times more likely to support its legalization (-2LL=199.88, R²=.38).

The next set of regression models tested whether support for legalization of medical and/or recreational marijuana could be solely attributed to individual level benefits (personal use) or if community benefits could provide significantly greater explanatory power. Using a likelihood ratio test, the second set of models were compared to the first set in order to determine if the inclusion of community benefits provided a significant improvement in fit. A chi-square statistic was calculated using the following formula: \( \chi^2 \) = 2 (LLR-LLF). For both medical and recreational marijuana, community benefits were found to significantly improve the prediction of one’s likelihood to support the legalization of marijuana because the obtained values of (\( \chi^2 = 88.18 \), df=7) and (\( \chi^2 = 123.72 \), df=7) exceeded the critical value of 14.1.

After controlling for personal use, results indicate a significant positive relationship between the perceived likelihood of decreased crime (B=.54, p<.05) and a significant negative relationship between the likelihood of increased traffic accidents (B=-.32, p<.05) and support for the legalization of medical marijuana. For recreational marijuana, both increased tax revenue (B=.34, p<.05) and decreased crime
(B=.41, p<.05) were found to have significantly influence an individual’s odds of supporting the legalization of marijuana.

Additional Analyses

Of the respondents that support the legalization of medical marijuana approximately 43 percent reported they currently used marijuana (57% do not use) as compared to 52% (48% do not currently use) of those supporting the legalization of recreational marijuana. One of the largest concerns of marijuana legalization is a significant increase in marijuana use overall due to the conversion of non-users to users. In other words, individuals not currently using marijuana will begin to do so should it become legal. However, results indicate that current non-users reported an average of 1.75 (on a 7 point scale with “1”= extremely unlikely and “7”= extremely likely) when ask how likely they would be to use recreational marijuana if it were to become legal (2.2 for medical marijuana).

Non-Normative Behaviors of Users vs. Non-Users

The next set of analyses were conducted to test our hypothesis that marijuana users are more likely to engage in non-normative behaviors related to the legalization of marijuana than non-users. A marijuana user was defined as someone reporting that they currently use marijuana. Of those that reported currently using marijuana, 43.1% use once a week, 11.8% use marijuana at least once a month, 35.3% use once or twice a year and 9.8% indicated that they use marijuana less than once a year. Data were analyzed using independent t-tests on each of the five non-normative behaviors in the questionnaire (discuss legalization, attend rally or protest, sign a petition, display a bumper sticker, and post views on social media). As predicted, marijuana users indicated that they were significantly more likely to: (1) discuss marijuana legalization with others (M_N=4.42, M_U=5.86, t=-3.94, p<.000); (2) attend a rally to support/oppose the legalization of marijuana (M_N=1.96, M_U=3.51, t=-5.42, p<.000); (3) sign a petition for/against the legalization of marijuana (M_N=3.13, M_U=4.81, t=-4.76, p<.000); (4) display a bumper sticker or wear an article of clothing supporting/opposing the legalization of marijuana (M_N=1.58, M_U=2.78, t=-4.53, p<.000); and (5) post views on marijuana on a social media website (M_N=1.81, M_U=2.92, t=-3.37, p<.000). Therefore H1 is supported. (See Table 5)

<table>
<thead>
<tr>
<th>Medical Marijuana</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>I would use medical marijuana if it became legal</td>
<td>1.08</td>
<td>.22</td>
</tr>
<tr>
<td>Increased tax revenue</td>
<td>.16</td>
<td>.19</td>
</tr>
<tr>
<td>Other economic growth</td>
<td>.08</td>
<td>.21</td>
</tr>
<tr>
<td>Decreased crime overall</td>
<td>.54</td>
<td>.23</td>
</tr>
<tr>
<td>Decreased law enforcement costs</td>
<td>.06</td>
<td>.21</td>
</tr>
<tr>
<td>Increased number of traffic accidents</td>
<td>-.32</td>
<td>.15</td>
</tr>
<tr>
<td>Increased marijuana dependency &amp; addiction</td>
<td>-.18</td>
<td>.20</td>
</tr>
<tr>
<td>Increased drug use overall</td>
<td>-.08</td>
<td>.19</td>
</tr>
<tr>
<td>Model Fit:</td>
<td>-2LL=170.35</td>
<td>R^2=.261</td>
</tr>
</tbody>
</table>
Recreational Marijuana | B  | SE  | Sig. | Odds Ratio | B  | SE  | Sig. | Odds Ratio  
--- | --- | --- | --- | --- | --- | --- | --- | ---  
I would use recreational marijuana if it became legal | .88 | .13 | *** | 2.41 | .67 | .14 | *** | 1.96  
Increased tax revenue | .34 | .17 | * | 1.41  
Other economic growth | .18 | .19 |  | 1.2  
Decreased crime overall | .41 | .18 | * | 1.51  
Decreased law enforcement costs | .03 | .18 |  | 1.03  
Increased number of traffic accidents | .03 | .16 |  | 1.03  
Increased marijuana dependency & addiction | -.46 | .26 |  | .63  
Increased drug use overall | -.17 | .23 |  | .85  
Model Fit: | -2LL= 199.88 | R²= .38 | -2LL= 138.02 | R²= .53  
N=259, ***= p<.001, **= p<.01, *= p<.05  
1= Cox and Snell R square  

**DISCUSSION AND IMPLICATIONS**

There are a number of significant macromarketing and societal implications that can be drawn from this work. For one, although one’s personal consumption of marijuana was found to influence support/opposition for its legalization, community benefits were also found to be significant factors. This indicates that the decision to legalize marijuana is more complex than previously thought. Previous research has emphasized the notion that marijuana users only desire the legalization of marijuana for personal consumption, however results demonstrate that consumers (both users and non-users) believe their communities will benefit from the legalization of marijuana. By increasing the salience of one’s community identity the structure of one’s in-group vs. out-group shifts to categorize one’s self in a more positive group (including both users and non-users). In essence, non-users supporting the legalization of marijuana are placing their social or group identity (ex. Community member) above their individual identity (ex. Non-users) and behaving in a manner that benefits the larger group as a whole. This finding is consistent with the underpinnings of Social Identity Theory, which states that group members will adopt behavioral strategies that promote the in-group in order to maintain a positive status (Hogg, Terry, and White 1995).

Although the greatest concern of those opposing marijuana legalization is that marijuana usage will increase results indicate that the legality of this practice is not likely to impact behavior. In fact, findings suggest that non-users are extremely unlikely to begin using marijuana as a result of its legalization. Also, marijuana users were found to be more likely to engage in a number of non-normative behaviors than non-users. One explanation for these results can be found by utilizing social identity theory. For these low status individuals, engaging in activities such as signing petitions or displaying bumper stickers can be viewed as attempts to increase the legitimacy and status of their group within society.

There are also a number of interesting implications pertaining to marketing systems that result from the legalization of marijuana. This change in market structure (from illicit to legal) allows us a unique perspective into various externalities arising from this phenomena. Externalities are uncalculated costs and benefits of the exchange equation that “weave together exchange, macromarketing, and social and market systems” (Mundt and Houston 2010, p. 254). As discussed, the legalization of marijuana has given rise to burgeoning new industries, businesses and entrepreneurial ventures. It has also caused rifts between state and nation resulting in unforeseen policy and regulatory strife.
One such example is illustrated by Nebraska and Oklahoma who recently filed asking the U.S. Supreme Court to strike down Colorado’s legalization of marijuana. The two legislative bodies argue that, "the State of Colorado has created a dangerous gap in the federal drug control system" (Ingold 2014). These two states further assert that marijuana flows from this gap into neighboring states which: (1) undermines the Plaintiff States' own marijuana bans; (2) drains their resources; and (3) places undue stress on their criminal justice systems (Ingold 2014). The legalization of marijuana has clearly caused marketing systems to change (Layton 2009). These changes have exposed inefficiencies within these systems with important macromarketing implications that merit further consideration and study.

Finally, since the repeal of prohibition of alcohol, there has never been a greater opportunity to investigate the transition of a product from illicit to legal. The legalization of marijuana creates a unique opportunity to examine the junction between markets, marketing and society. This shift in society’s views and policies merits further attention and consideration from researchers, politicians and academics. Macromarketing scholars are uniquely positioned to answer this call.
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QUALITY-EFFICIENCY TRADE-OFFS IN SERVICE ORGANIZATIONS: A SFA-BASED APPROACH WITH APPLICATION IN HEALTH CARE SERVICES

Fengxia (Sandy) Zhu, Detelina Marinova, Jagdip Singh

For service organizations, the efficiency of processes for converting inputs into valued outputs is both a challenge and an imperative (Bowen and Jones 1986; Coelli et al. 2005). At its core, the challenge stems from the typically observed trade-offs between cost containment and quality improvements (Rust et al. 2002) since quality improvement programs often require more labor, resources, and effort (Marinova et al. 2008). These trade-offs can become unmanageable due to the heterogeneity, subjectivity and intangibility of service outputs (Zeithaml et al. 1985). Ironically, these very challenges make efficiency an imperative for service organizations. Costs can blow up, labor can slacken (especially when output monitoring is difficult) and competitors can erode quality advantage (e.g., by better quality/price offers). Rust and Huang (2012, p. 47-48) summarize this well by noting that quality-efficiency "tradeoff is typical in the service world… it is always better to have service that is both more efficient and more effective". Practically, service organizations rarely consider quality improvement programs without consideration of its efficiency implications.

Past research has tended to examine either service quality and efficiency separately (e.g. Anderson et al. 1997; Anderson et al. 1999; Ren and Zhou 2008; Rust et al. 1995), or the nature of trade-offs between quality and efficiency (e.g., Rust and Huang 2012; Singh 2000), but rarely studied organizational drivers for achieving both quality and efficiency objectives. For instance, Brown and Dev (2000) focused on drivers of productivity in the hotel industry but did not consider service quality, while Brady and Robertson (2001) examined key antecedents of service quality but overlooked the impact on, or of, productivity. Studies that aim to provide insights on organizational factors crucial for superior service quality while ignoring the concomitant effect of productivity and vice versa risk an incomplete, if not misleading, understanding. For instance, Singh (2000) models the differential drivers of quality productivity in call centers, but does not examine the relationship between productivity and quality such that important questions regarding the quality-efficiency trade-offs go unexplored: When do increases in quality come at the cost of lower efficiency? What factors drive gains in both quality and efficiency?

One approach to study quality-efficiency trade-offs is to adjust efficiency for the quality of service. Doing so responds to Grönroos and Ojasalo (2004, 415-416) admonishment that service productivity models will likely provide “wrong directions for action… [if] perceived quality is not incorporated in the concept [of efficiency].” As these authors explain, this may occur when cost-focused process improvements also reduce quality, thereby driving away customers and resulting in lowered economic payoffs. Moreover, the economic loss may not be apparent in the short-term as it takes a few cycles for the customer response to take effect. For instance, in July 2012, Red Lobster increased table allocations from three to four per server as part of streamlining operations only to reverse the decision a year later as it created “a barrier to providing that great guest experience” (Tuttle 2013). A quality-adjusted efficiency approach would avoid such costly mistakes.

The aims of this study are twofold: (a) propose a Stochastic Frontier Analysis (SFA) model for developing quality-adjusted efficiency scores, and (b) examine drivers of quality-adjusted efficiency and misinterpretation risks that are likely to occur if quality adjustment is ignored. Specifically, we employ a SFA to develop an approach for adjusting organizational service efficiency by service quality based on a multi-dimensional measure which captures key aspects of the service quality (Golder et al. 2012; Reeves and Bednar 1994). In particular, we use nine qualitatively different service quality dimensions, two of which pertain to quality as perceived by customers, five relate to quality processes, and another two pertain to quality outcomes. We reason that customer, process and outcomes represent distinct facets of total service
quality, and including them provides a more meaningful quality-adjusted efficiency scores. To empirically examine this reasoning, we subsequently test the incremental contribution of quality-adjusted efficiency scores using the unadjusted, operational cost efficiency scores as benchmark. Moreover, in accord with the second aim of this study, we develop hypotheses regarding the: (a) relationship between quality-adjusted efficiency and unadjusted (or operational cost) efficiency, (b) drivers of quality-adjusted efficiency, and (c) mediating role of operational cost efficiency. In so doing, we isolate the disparate impact of organizational scale and process factors on quality-adjusted and -unadjusted efficiency scores.

We utilize multisource data from the US healthcare industry, specifically hospital services, comprising 995 hospitals over a three-year period (2008-2010) amounting to 1961 hospital-year observations as the empirical context for our study. The healthcare industry constitutes a significant portion (18%) of US’s GDP amounting to $2.82 trillion (according to world bank data), and where regulators, providers, insurers and users appear to agree that both making efficient use of resources and delivering high care quality are imperative goals, not a matter of choice. As such, the risks of ignoring quality by using unadjusted efficiency scores for regulatory, policy or medical decisions are likely to be “costly” for individuals and society alike, even unacceptable. Our results show that, although quality-adjusted efficiency scores are positively related with unadjusted efficiency scores, the positive correlation is a false security as it obscures their contrasting relationships with the examined organizational factors. For instance, we find that employee efforts to enhance frontline interactions reduce unadjusted, operational cost efficiency indicating that such efforts are prone to hurt efficiency; however, the same efforts are positively (and significantly) related to quality-adjusted efficiency signifying that, in fact, frontline interactions help improve the quality-efficiency trade-offs.

**BACKGROUND AND HYPOTHESES**

**Adjusting Efficiency for Service Quality**

Efficiency typically concerns the conversion of resources into outputs. How resources are priced and valued obviously matters in efficiency assessments and thus efficiency is often defined by the cost of resources. Further, since the conversion of resources into marketable outputs involves organizational operations, operational cost efficiency is a common approach to conceptualizing efficiency variations across organizations in any industry (Coelli et al. 2005; Krasnikov et al. 2009; Mittal et al. 2005). Service researchers question the relevance of operational cost efficiency for industries whose outputs involve significant service component (Rust and Huang 2012; Groonroos and Ojasalo 2004; Frei 2006). For instance, Groonroos and Ojasalo (2004, p. 414) argue that operational cost efficiency is best viewed as internal efficiency since it examines how the organization converts resources into the service offerings; however, an external efficiency also needs to be considered to examine how the quality of service offerings are valued by its customers. Three premises, widely held in the services marketing literature, underlie Groonroos and Ojasalo’s arguments: (1) service offerings are largely intangibles whose value cannot be assessed objectively but only as perceived by customers, (2) quality of service offerings cannot be standardized since it involves personalization and customization to individual customers with heterogeneous needs, and (3) service quality and cost are both key factors for differentiating the service offering from the competition, and for survival in the marketplace. Thus, evaluating service organizations with operational cost efficiency assessments has limited value. Rust and Huang (2012) go further to note that, because quality and efficiency trade-offs are common in service but not manufacturing industries, only quality-adjusted efficiency scores are useful in examining optimization decisions in managing service trade-offs.

Although quality-efficiency trade-offs suggest a negative relationship between quality-adjusted and operational-cost efficiency scores, we hypothesize a weak, but positive and significant relationship. Two theoretical perspectives are relevant. First, experiential attributes are typically salient, if not central, in service consumption such that service organizations have to exceed some positive threshold (i.e., lower bound) of quality on these attributes to survive in the marketplace. Providers who operate at the lower end
of the quality-efficiency tradeoff (high efficiency, low quality) have to be careful not to fall below customers’ minimal expectations on salient attributes to mitigate survival risk. In this sense, the range on quality attributes is restricted in practice by organizational efforts to rise above the low quality threshold. Range restriction is known to reduce observed correlations (Linn et al. 1981). In the context of quality-efficiency trade-offs, range restriction is likely to diminish the expectation for negative correlation between quality-adjusted and operational cost efficiency scores.

Second, competition in service industries makes overcoming quality-efficiency trade-offs (so as to lift quality while controlling costs) an imperative for achieving market advantage, thus creating a constant pressure for innovation in service organizations. Studies have shown that, while overcoming service-quality trade-offs is challenging for service organizations, innovations in technology, co-creation and systems design allow opportunities for breaking through quality-productivity trade-offs and organizations that are able to exploit these opportunities enjoy abnormal market returns (Mittal et al. 2005; Marinova et al. 2008). Cognizant of substantial payoffs from overcoming quality-efficiency trade-offs, modern service organizations aggressively pursue such opportunities. These opportunities often involve innovations of several interdependent service delivery elements, including process improvements, operational efficiency, delivering superior customer experiences or elevating customer perceptions of service quality. Similarly, research on ambidexterity shows that some organizations are capable of meeting the seemingly conflicting demands for operating efficiency and continuous improvement (i.e. adaptability), through a unique design of organizational structure and by building a distinct set of processes (Gibson and Birkinshaw 2004). For instance, quality improvement programs (QIPs), common in most service organizations, focus on innovations that deliver cost-effective quality improvements in service offerings. Take the case of Dell (Frei 2006). To save costs, Dell wanted to outsource on-site customer service to third party providers; however, doing so entailed quality loss since Dell would also lose direct contact with customers putting long-term relationships at risk. To overcome this trade-off, Dell split the on-site service function by outsourcing the technical aspect while retaining the service aspect through a centralized system that allowed monitoring on-site efforts and close communication with customers (Frei 2006). Such efforts yield a positive relationship between quality-adjusted and operational cost efficiency scores. Taken together, the preceding arguments suggest that the observed correlation between quality-adjusted and operational cost efficiency scores will be less negative than theoretically expected due to restriction of range, and likely positive to the extent organizations in an industry are successful in overcoming quality-efficiency trade-offs. Giving more weight to the latter due to intensity of service innovation, we posit:

H1: Quality-adjusted efficiency is positively but weakly related to unadjusted operational cost efficiency.

Impact of Frontline Interactions

The payoffs from interactions at organizational frontlines involving customer contact agents, whether direct (face-to-face) or mediated (e.g., phone), is contested in research and practice. Skeptics assert that frontline interactions are prone to uncontrollable variations due to frontline staff’s personal (e.g., mood), role (e.g., stress) and contextual (e.g., time pressure) among other characteristics during the span of a workday. Interaction variability undermines organizational efforts to deliver expected level of service quality and, because frontline staff are expensive resources, is costly. For instance, Batt and Moynihan (2002) note that service organizations implemented “mass production” models by using automated call distribution and routing systems, voice recognition technology and other innovations to limit customers’ interaction with frontline staff or, where interaction was unavoidable, standardized scripts, close monitoring, and behavioral metrics to control variability. Such mechanization strategies are widely used in low touch services (e.g., fast food restaurants) where concerns of frontline variability and productivity are prominent. Although not as yet common, improved self-service technologies (SST; e.g., retail checkout counters) and interactive voice response technologies (IVR; e.g., banking) are “staffing” frontlines in a host of high touch services. Such changes are motivated by the concern that frontline investments are significant
(e.g., 40% of operating costs; Brown and Dev 2000) and that payoffs from frontline interactions are limited and uncertain.

Proponents counter that frontline staff serve essential function in most services because only human interaction has the capability to assess customers’ specific and changing needs to customize service offerings. For instance, in a study of frontline interactions in a variety of service settings where standardized scripts (“codes”) are actively developed and enforced, Schau et al. (2007) found that customers, not necessarily frontline staff, routinely engage in “code switching” such as using non-code language, dialects and brand-names that they are comfortable with, and find contextually meaningful. Computerized systems are prone to frustrate customer efforts to switch codes as it demands compliance with its standardized code. By contrast, frontline staff can adapt to customer code switching, decipher its message, and provide service to comply with customer needs. Current computerized systems are largely incapable of such adaptation. Other studies have shown broad support for the notion that frontline staff are critical for understanding and addressing customers’ needs in service encounters (Bitner et al. 1994). Moreover, research on service–profit-chain shows that strategic investment in frontline staff pays off in terms of customer loyalty and profitability (Kamakura et al. 2002). In fact, the resulting profit and revenue growth often offsets the additional costs invested in hiring, training and retaining skilled frontline employees (Kamakura et al. 2002;). Anecdotal data indicates that some service firms go as far as to pay twice the industry average to their frontline staff to gain competitive advantage in building customer loyalty, and sales and profits gains (Schlesinger and Heskett 1991; also see Marinova, Ye, and Singh (2008)). In Schau et al.’s (2007) study noted earlier, frontline staff who adapted to customer code switching produced more positive response and greater loyalty without loss of efficiency relative to encounters that did not involve code switching (also see Brown and Dev 2000;). In evaluating the preceding two perspectives, we align with the view that, while investments in frontline interactions are costly, they pay off by enhancing the quality adjusted efficiency in service settings. Thus:

H2: Frontline interactions (a) negatively influence cost efficiency (costs more), (b) but positively influence quality-adjusted efficiency after controlling for its effect on cost efficiency, such that (c) the total effect on quality-adjusted efficiency is positive (quality pays off despite costs).

Impact of Organizational Size

Economies of scale are generally believed to favor organizational size (Henderson 2003), such that the larger the firm, the lower the average cost due to more efficient resource utilization. Scale benefits usually stem from production volume which allows installation of economically-sized capacity, and its utilization to the fullest extent. There are other benefits too. For example, larger organizations tend to more slack resources and can afford greater specialization on aspects including labor, equipment, and facilities (Damanpour 1987). Logically, all of the above factors positively contribute to organizational operating efficiency.

However, as an organization grows in size, it also tends to become structurally complex (Child 1972). For one thing, large organizations have more administrative positions and thus often incur higher administrative costs. Typically, these administration ranks do not directly contribute to service quality performance as those who are professionally trained for the service job. For example, critics note that one reason for the health care industry’s core problem of constantly ballooning costs with little quality improvements to show for it is a bloated administrative structure that burdens the system with unproductive costs. A recent analysis reported that “the pay for the top five or 10 executives at insurers is pretty astounding—way more than a highly trained surgeon.” (Rosenthal, 2014 ).

Further, organizations tend to adhere to past practices and be less willing to respond to environmental changes as they get larger (Kelly and Amburgey 1991). Because of the organizational inertia
associated with size, large service organizations may respond slowly to opportunities and threats in the environment. Yet, continuous quality improvement requires organizations to stay alert and engage in continuous learning (Sitkin et al. 1994). As a result, larger service organizations may lag behind rivals in inventing and implementing best practices in service quality, which, in turn, may negatively contribute to quality adjusted efficiency. Based on the above reasoning, we hypothesize the following regarding the effect of size on operating and quality adjusted efficiencies, respectively:

\[ H3: \] The larger the size of the organization, (a) the higher the cost efficiency (less cost), but (b) the lower the quality-adjusted efficiency after controlling for its effect on cost efficiency, such that (c) the total effect on quality-adjusted efficiency is negative (no quality payoffs).

**RESEARCH METHOD**

**Research Design**

*Setting.* To test our hypotheses, we utilize US hospital services as a research setting for several reasons. First, the healthcare industry comprises an increasingly competitive environment where service quality and efficiency are both essential for hospitals to survive (Fennell and Alexander 1993; Meliones 2000). Second, the growing demand for health care, rising costs, combined with constrained resources make the efficient use of resources and delivering health care quality an imperative (Schuster et al. 2005). Third, institutions that regulate and constrained payment structures, hospitals are demanded to deliver high quality service while at the same time remain operationally efficient (Bohmer 2010). Fourth, because all US hospitals use similar inputs (e.g. nurses, physicians) and produce similar outputs (e.g. patient days, patient admissions), we can make a meaningful comparison of the efficiency performance among different hospitals. Finally, different federal institutions (e.g. Medicare and Medicaid Services) require hospitals to publicly report their financial information and quality of care. Therefore, consistent and reliable sources of longitudinal data is available for research studies.

*Data sources and sampling.* The data used for this research is a longitudinal hospital dataset from year 2008 to 2010, collected from multiple sources. We used the Centers for Medicare and Medicaid Services (CMS) cost report data and the Medicare Hospital Compare database on the process of care quality, and the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient survey data to derive the proposed dependent variables (i.e. operation efficiency and quality-adjusted efficiency). The independent variables are sourced from the Hospital Cost Reports and the HCAHPS. Consistent with prior hospital efficiency studies, we focus on urban, general acute care hospitals as our sample (e.g. Mutter et al. 2008), resulting in data for 995 hospitals for the time period 2008-2010, with a total of 1961 cases. Table 1 presents the relevant descriptive data.
Table 1: Descriptive Statistics for Key Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SFA inputs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bed</td>
<td>319.93</td>
<td>210.14</td>
<td>37</td>
<td>1994</td>
</tr>
<tr>
<td>Total adjusted wage</td>
<td>133.1</td>
<td>136.9</td>
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<td>Depreciation expenses</td>
<td>16.4</td>
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<td>Interest expenses</td>
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<td>5.4</td>
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<td>61.7</td>
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<td>FTE on payroll</td>
<td>2102.4</td>
<td>1907.04</td>
<td>30</td>
<td>19758.36</td>
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<tr>
<td><strong>SFA outputs</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total patient days</td>
<td>81.3</td>
<td>63.4</td>
<td>4.7</td>
<td>601.5</td>
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<tr>
<td>Operating costs</td>
<td>344.1</td>
<td>324.6</td>
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<tr>
<td>Total Quality</td>
<td>0</td>
<td>0.62</td>
<td>-2.81</td>
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<td>Total Quality (rescaled)</td>
<td>10</td>
<td>0.62</td>
<td>7.19</td>
<td>11.55</td>
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<td>Heart Attack</td>
<td>97.55</td>
<td>2.59</td>
<td>67</td>
<td>100</td>
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<tr>
<td>Heart Failure</td>
<td>90.26</td>
<td>6.67</td>
<td>55.67</td>
<td>100</td>
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<tr>
<td>Pneumonia</td>
<td>89.48</td>
<td>6.16</td>
<td>58.2</td>
<td>100</td>
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<tr>
<td>Smoke</td>
<td>97.25</td>
<td>4.49</td>
<td>53</td>
<td>100</td>
</tr>
<tr>
<td>Surgical Care</td>
<td>90.62</td>
<td>5.99</td>
<td>58.4</td>
<td>100</td>
</tr>
<tr>
<td>Mortality (%)</td>
<td>8.35</td>
<td>1.46</td>
<td>4.58</td>
<td>14</td>
</tr>
<tr>
<td>Std. of Mortality</td>
<td>15.49</td>
<td>2.93</td>
<td>6.57</td>
<td>24.3</td>
</tr>
<tr>
<td>Overall Patient Rating</td>
<td>2.52</td>
<td>0.12</td>
<td>2.04</td>
<td>2.8</td>
</tr>
<tr>
<td>Patient Recommendation</td>
<td>1.61</td>
<td>0.12</td>
<td>1.14</td>
<td>1.86</td>
</tr>
</tbody>
</table>

**Measures**

*Total Quality.* The hospital total overall service quality is operationalized as a composite score of three quality aspects (Campbell et al. 2000): (1) the mortality outcome, which comprises the case-mix adjusted mortality rate and its standard deviation, (2) the process of care quality, which measures hospitals’ adherence to recommended practices for Heart Attack care, Heart Failure care, Pneumonia care, Surgical Care, and Smoking related issue care, and (3) the patient rating, which represents the patient evaluation of the hospital visit experience as a whole and consists of aspects including the patient overall rating of the hospital and whether the patient is willing to recommend the hospital to others..

*Quality of the Frontline Interaction Process.* We consider two types of frontline personnel in the context of healthcare: nurses and doctors. Thus, we have two alternative measures of the quality of frontline interaction process. The nurse-patient interaction is a variable representing the processes through which the frontline nursing staff interacts with the patients during their hospital stay. It is operationalized as a composite score reflecting several aspects of nurse-patient interaction process (e.g. nurse communication
with the patient). Doctor Communication is variable which reflects patient perception of how the doctor is communicating with the patient in interpersonal interactions. It is reported in the HCAHPS patient survey database and is a composite (compiled by The Centers for Medicare & Medicaid Services (CMS) and the Agency for Healthcare Research and Quality (AHRQ)) of three individual survey questions: 1) during this hospital stay, how often did doctors treat you with courtesy and respect; 2) during this hospital stay, how often did doctors listen carefully to you; 3) during this hospital stay, how often did doctors explain things in a way that you could understand.

Hospital Size. We use the number of hospital beds reported in the Hospital Cost Reports as an indicator of the hospital size.

Controls. Total discharge measures the total number of patients discharged from a hospital for a given year and is available from the Hospital Cost Reports. Hospital ownership has three categories: government, not-for-profit, and proprietary hospitals and is available through the Hospital Cost Report Database provided by CMS.

Method of Analysis

Total Quality Factor Analysis. 24 different measures of care quality were extracted from two sources—the Medicare Hospital Compare Initiative (MHC1) and the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) —and matched for each hospital. Of the 24 quality measures, two pertain to patient assessment (i.e., overall rating, and recommendation), nineteen relate to process of care (i.e., heart attack, smoking, heart failure, pneumonia and surgical), and three pertain to outcomes (i.e., mortality rate). The large number of process care quality are derived from easy-to-obtain process records and, as a result, many of them are highly collinear, making them unusable for meaningful analysis. We reasoned that a factor analysis approach that capitalized on measure redundancy to extract relatively distinct and meaningful “factors” and capture most of the variation in the measures would be useful in rationalizing the process quality measures. Using an exploratory factor analysis with 3-, 4-, 5-, and 6-factor extractions and different rotation methods (e.g., oblique), we aimed to select a solution that (a) extracted at least 70% of the measure variation, (b) evidenced convergent (i.e., high factor loading) and discriminant validity (i.e., low cross-loading), (c) showed consistent results across 2008, 2009, and 2010 data, and (d) was interpretable as substantively meaningful factors. Based on the preceding criteria, a five-factor solution appears reasonable to capture the variation in the nineteen process quality measures (see Table 2 for descriptions of specific measurement items).
### Table 2: Item Descriptions for Different Measure used to Define Study Variables

<table>
<thead>
<tr>
<th>Item</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA1</td>
<td>Heart Attack Patients Given Aspirin at Arrival</td>
</tr>
<tr>
<td>HA2</td>
<td>Heart Attack Patients Given Aspirin at Discharge</td>
</tr>
<tr>
<td>HA4</td>
<td>Heart Attack Patients Given Smoking Cessation Advice/Counseling</td>
</tr>
<tr>
<td>HA5</td>
<td>Heart Attack Patients Given Beta Blocker at Discharge</td>
</tr>
<tr>
<td>HF1</td>
<td>Heart Failure Patients Given Discharge Instructions</td>
</tr>
<tr>
<td>HF2</td>
<td>Heart Failure Patients Given an Evaluation of Left Ventricular Systolic (LVS) Function</td>
</tr>
<tr>
<td>HF3</td>
<td>Heart Failure Patients Given ACE Inhibitor or ARB for Left Ventricular Systolic Dysfunction (LVSD)</td>
</tr>
<tr>
<td>HF4</td>
<td>Heart Failure Patients Given Smoking Cessation Advice/Counseling</td>
</tr>
<tr>
<td>PN1</td>
<td>Pneumonia Patients Assessed and Given Pneumococcal Vaccination</td>
</tr>
<tr>
<td>PN2</td>
<td>Pneumonia Patients Whose Initial Emergency Room Blood Culture Was Performed Prior To The Administration Of The First Hospital Dose Of Antibiotics</td>
</tr>
<tr>
<td>PN3</td>
<td>Pneumonia Patients Given Smoking Cessation Advice/Counseling</td>
</tr>
<tr>
<td>PN4</td>
<td>Pneumonia Patients Given Initial Antibiotic(s) within 6 Hours After Arrival</td>
</tr>
<tr>
<td>PN5</td>
<td>Pneumonia Patients Given the Most Appropriate Initial Antibiotic(s)</td>
</tr>
<tr>
<td>PN6</td>
<td>Pneumonia Patients Assessed and Given Influenza Vaccination</td>
</tr>
<tr>
<td>SC1</td>
<td>Surgery Patients Who Received Preventative Antibiotic(s) One Hour Before Incision</td>
</tr>
<tr>
<td>SC2</td>
<td>Surgery patients who were given the right kind of antibiotic to help prevent infection</td>
</tr>
<tr>
<td>SC3</td>
<td>Surgery Patients Whose Preventative Antibiotic(s) are Stopped Within 24 hours After Surgery</td>
</tr>
<tr>
<td>SC4</td>
<td>Surgery patients whose doctors ordered treatments to prevent blood clots after certain types of surgeries</td>
</tr>
<tr>
<td>SC5</td>
<td>Surgery Patients Who Received Treatment To Prevent Blood Clots Within 24 Hours Before or After Selected Surgeries to Prevent Blood Clots</td>
</tr>
<tr>
<td>HA</td>
<td>Heart attack process of care quality</td>
</tr>
<tr>
<td>HF</td>
<td>Heart failure process of care quality</td>
</tr>
<tr>
<td>PN</td>
<td>Pneumonia process of care quality</td>
</tr>
<tr>
<td>SMK</td>
<td>Smoking counseling process of care quality</td>
</tr>
<tr>
<td>SC</td>
<td>Surgical care process of care quality</td>
</tr>
<tr>
<td>PR1</td>
<td>Patient overall Rating of the hospital.</td>
</tr>
<tr>
<td>PR2</td>
<td>Patient recommendation of the hospital.</td>
</tr>
<tr>
<td>Mort</td>
<td>Average score of the case mix index adjusted mortality rates on heart attack, heart failure, and pneumonia</td>
</tr>
<tr>
<td>MortStd</td>
<td>Average score of the standard deviations of the case mix index adjusted mortality rates on heart attack, heart failure, and pneumonia</td>
</tr>
<tr>
<td>Q2</td>
<td>Doctor communication</td>
</tr>
<tr>
<td>NP1</td>
<td>Nurse communications</td>
</tr>
<tr>
<td>NP2</td>
<td>Patients receiving help (Responsiveness of Hospital staff)</td>
</tr>
<tr>
<td>NP3</td>
<td>Staff explain well (communication about medicines)</td>
</tr>
<tr>
<td>NP4</td>
<td>Pain control/management</td>
</tr>
<tr>
<td>NP5</td>
<td>Information on recovery (discharge information)</td>
</tr>
</tbody>
</table>
In regard to the outcome quality measures, the mortality rates for heart attack, heart failure, and pneumonia were available for each hospital. We took into account the diversity and complexity of a hospital’s patient population and adjusted the mortality rates using the Medicare Case Mix Index (MCMI) obtained from Centers for Medicare and Medicaid Services (CMS). In addition, individually these adjusted mortality measures show low numbers with limited variation as is often the case with mortality rates. To obtain more discriminating outcome measures we (a) averaged the adjusted mortality rates across the three conditions for each hospital, and (b) computed the average standard deviations for each of the three adjusted mortality rate measures that were averaged for each hospital. We use both the obtained mean and standard deviation values for the adjusted mortality rate in subsequent analysis.

Thus, we had in all nine care quality measures, two of which pertain to patient assessment (i.e., overall rating, and recommendation), five relate to process of care (i.e., heart attack, smoking, heart failure, pneumonia and surgical), and another two pertain to outcome (i.e., mean and standard deviation of mortality rate). We reasoned that patient, process and outcome represent distinct dimensions of hospital’s total quality. To test this reasoning, we analyzed the nine quality measures with a confirmatory factor analysis (CFA) model with three a priori defined factors corresponding to patient, process and outcome dimensions. Results for this analysis shows reasonably good fit according to relative (e.g., CFI = .93) and absolute fit indices (RMSEA = .09 (90% CI = (.088, .10)) although the statistical fit is inadequate ($\chi^2 = 1592.5$, df = 84, p < .001) as is typical with large sample studies. In support of fit, all standardized factor loadings are above 0.5 and statistically significant (t > 2.58, p < .01) with factor reliabilities that exceed 0.7 and average extracted variance (AVE) for each factor > 0.5 except for process of care quality (AVE=.44). These results support convergent validity of the three quality factors. To test for discriminant validity, we compared, for each factor, the average variance extracted (AVE) with the average variance shared (AVS) with other factors and found that the AVE exceed AVS for the individual factors without exception (Fornell and Larcker 1981). Together this evidence supports discriminant validity of the three quality factors.

**Quality of nurse-patient interaction.** Similar to hospital quality measurements, we analyzed the five measures reported in the HCAHPS database that relate to frontline nurse staff-patient interactions. These measures are highly collinear such that a one-factor-solution extracts 87% of the variance and the measures all have high loadings on this factor except for one measure which was dropped due to poor loading. Subsequently, we evaluated the measurement validity of this construct in the same confirmatory factor analysis (CFA) model as we evaluated the total quality measure. As discussed in the prior section, the CFA model shows reasonable fit. In addition, in support of good fit, all standardized factor loadings for this construct are above 0.5 and statistically significant (t > 2.58, p < .01), the AVE is .75, and exceeds the corresponding ASVs providing support for its convergent and discriminant validity.

**Stochastic Frontier Analysis for Derivation of Efficiency Scores.** We use a Stochastic Frontier Analysis (SFA) to derive the operational efficiency and quality-adjusted efficiency of hospitals. This technique compares the efficiency of organizations operating in similar settings (e.g. same industry) by explicitly considering their use of multiple inputs to produce an output (Kumbhakar and Lovell 2003). Organizations operating on the efficiency frontier are those producing maximum output at a given level of inputs or, alternatively, a given level of output with minimum inputs. The SFA technique offers several advantages compared to the rival linear programing non-parametric techniques such as Data Envelopment Analysis (DEA) (Anderson et al. 1999): (1) Unlike DEA, SFA is a statistically-based tool which allows valid inference and generalization from the sample to the population and is thus appropriate for theory development and testing, and (2) Unlike SFA, the efficiency scores obtained from DEA may be biased since they also include an error term which may confound the obtained measure.

**Operational Cost Efficiency.** Drawing from prior research, we estimated the operational cost efficiency by postulating a relationship among each hospital’s i (i= 1 to 995) total operating costs, input prices, and output quantities (Jondrow et al. 1982) at time t (t=1,2,3) as follows:
(1) \( \ln(T\text{Cost}_a) = \beta_0 + \beta_1 \ln(\text{LaborCost}_a) + \beta_2 \ln(\text{CapitalCost}_a) + \beta_3 \ln(\text{PatientDays}_a) + \gamma + \varepsilon \)

where \( T\text{Cost} \) = hospital’s total operating costs; \( \text{LaborCost} \) = labor cost, \( \text{CapitalCost} \) = capital cost; \( \text{PatientDays} \) = the total patient days of the hospital which is a standard industry measure for hospital output quantity and is routinely used to assess hospital performance.; \( \varepsilon \sim N(0,\sigma^2) \) is the random error; \( u \sim U[0,1] \) and \( U \sim N(0,\sigma^2) \). Thus, the operating cost efficiency for a given hospital (Eff\(_a\)) is derived as follows:

(2) \( \text{CostEff}_a = \exp(-u) \)

Quality-Adjusted Efficiency. We estimated the quality-adjusted efficiency by adjusting the output quantity (i.e. total patient days) by the total quality score of the hospital as follows:

(3) \( \text{QualityDays}_a = \text{PatientDays}_a \times \text{TotalQuality}_a \)

where \( \text{TotalQuality} \) = total quality of the hospital described above under measures. Subsequently, we derived the quality-adjusted efficiency from the following SFA model:

(4) \( \ln(T\text{Cost}_a) = \beta_0 + \beta_1 \ln(\text{LaborCost}_a) + \beta_2 \ln(\text{CapitalCost}_a) + \beta_3 \ln(\text{QualityDays}_a) + \gamma + \varepsilon \)

where \( \varepsilon \sim N(0,\sigma^2) \) is the random error; \( \lambda = |L| \) and \( L \sim N(0,\sigma^2) \).

(5) \( \text{QualityAdjustedEff}_a = \exp(-\lambda) \)

For the hospitals included in our sample, the average operational cost efficiency ranges from .27 to .98, with a mean of .73 and standard deviation of .14. Quality-adjusted efficiency has a slightly lower mean (.54) but comparable range (.11 to .99) and standard deviation (.19).

Hypotheses Testing Model. We employed a Panel Regression Model with Random Effects (Greene 2012) to test the proposed hypotheses as follows:

(6) \( \text{CostEff}_a = \delta_0 + \delta_1 \text{FLE\_INT}_a + \delta_2 \text{DR\_COMM}_a + \delta_3 \text{SIZE}_a + \delta_4 \text{Disch}_a + \delta_5 \text{Gov}_a + \delta_6 \text{NFP}_a + \eta_a \)

(7) \( \delta_0 = \kappa + \nu_a \)

(8) \( \text{QualityAdjustedEff}_a = \theta_0 + \theta_1 \text{FLE\_INT}_a + \theta_2 \text{DR\_COMM}_a + \theta_3 \text{SIZE}_a + \theta_4 \text{Disch}_a + \theta_5 \text{Gov}_a + \theta_6 \text{NFP}_a + \xi_a \)

(9) \( \theta_0 = \psi + \iota_a \)

(10) \( \text{QualityAdjustedEff}_a = \gamma_0 + \gamma_1 \text{CostEff\_I}_a + \gamma_2 \text{FLE\_INT}_a + \gamma_3 \text{DR\_COMM}_a + \gamma_4 \text{SIZE}_a + \gamma_5 \text{Disch}_a + \gamma_6 \text{Gov}_a + \gamma_7 \text{NFP}_a + \zeta_a \)

(11) \( \gamma_0 = \omega + \phi_a \)

where \( \text{FLE\_INT} \) = frontline nurse-patient interactions; \( \text{DR\_COMM} \) = doctor communication; \( \text{SIZE} \) = hospital size; \( \text{Disch} \) = total number of patients discharged; \( \text{Gov} = \) if government-owned hospital and 0 otherwise; \( \text{NFP} = 1 \) if not-for-profit hospital and 0 otherwise; \( \text{CostEff\_I}_a \) is an instrumental variable for CostEff based on variables in equation (6); the \( \kappa, \psi, \omega \), and \( \theta_0 \) are estimated random effects; \( \nu_a, \iota_a, \xi_a, \phi_a \), and \( \eta_a \) are \( N(0,\sigma^2) \).

**RESULTS**

We present the models in Table 3. Estimation of the hypothesized model indicates that the model accounts for 66.55% variance in the quality-adjusted efficiency and shows a good fit (F=429.43, df1=7, df2=1511, p<.001). In terms of relative fit, Model 4 has a significantly better fit compared to Model 1 (-2∆LLR=269.8, ∆ d.f.=3, p<.001; ∆ AIC= 0.17) and Model 3 (-2∆LLR=571.5, ∆ d.f.=1, p<.001; ∆ AIC= 0.37), according to the likelihood ratio tests and the AIC fit indices. Therefore, we retain Model 4 for hypotheses testing.

Hypotheses testing results. As shown in Table 3, we find a positive effect of operational cost efficiency on the quality-adjusted efficiency (\( \gamma_1=0.56, p<.01 \)) in support of H1. As expected, quality of the frontline nurse interactions with patients negatively impacts the operating cost efficiency (\( \delta_1=-1.11, p<.01 \)) but positively affects the quality-adjusted efficiency after controlling for its effects on operating cost efficiency (\( \gamma_2=1.26, p<.01 \)) supporting H2a and H2b, respectively. Further, the total effect of frontline staff interactions with patients on quality-adjusted efficiency is positive and statistically significant (\( \theta_1=0.026, p<.01 \)) as predicted by H2c. Since H2 implicates the mediation role of operational cost efficiency in the
relationship between identified efficiency drivers and quality-adjusted efficiency, we also performed a formal mediation test utilizing the macro developed by Preacher and Hayes and a bootstrap sample of 5000 (Preacher and Hayes 2008). The test results demonstrate that the indirect effect of frontline-patient interactions (through cost efficiency) is negative and significant (coefficient =-.02, p<.01). Effectiveness of physician communication similarly shows a negative effect on operational cost efficiency (γ3=-1.05, p<.01) but a positive impact (γ4=1.22, p<.01) on quality-adjusted efficiency after controlling for its effects on operating cost efficiency. The total effect of effectiveness of physician communication on quality-adjusted efficiency, is positive but statistically insignificant. These results are consistent with the mediation test, which demonstrates that the indirect effect of effectiveness of physician communication is negative and significant (coefficient =-.22, p<.01). Taken together, the results partially support H2.

Contrary to H3a, hospital size has a negative impact on operational cost efficiency (δ3=-3.83, p<.01). However, larger-sized hospitals also tend to be associated with lower quality-adjusted efficiency after controlling for its effects on operating cost efficiency (γ3=-.40, p<.01). This supports H3b. Similarly, consistent with H3c, the total effect of hospital size on quality-adjusted efficiency is negative and significant (θ3=-.362, p<.01). The formal mediating test demonstrates that indirect effects of operational cost efficiency is negative and statistically significant (coefficient =-.0001, p<.01). Thus, the analysis result lends partial support for H3.

Table 3: Estimated Parameters for Different Models of Quality Adjusted and Cost Efficiency.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1: DV = Quality Adjusted Eff; Parameter estimates (SE)</th>
<th>Model 2: DV = Cost Eff; Parameter estimates (SE)</th>
<th>Model 3: DV = Quality Adjusted Eff; Parameter estimates (SE)</th>
<th>Model 4: DV = Quality Adjusted Eff; Parameter estimates (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.383**(.012)</td>
<td>0.881(.261)</td>
<td>0.502**(.244)</td>
<td>-0.001(.204)</td>
</tr>
<tr>
<td>CostEff</td>
<td>0.510**(.023)</td>
<td></td>
<td></td>
<td>0.56***(.022)</td>
</tr>
<tr>
<td>FLE_INT</td>
<td>-</td>
<td>-1.11***(.005)</td>
<td>0.026***(.005)</td>
<td>1.26**(0.04)</td>
</tr>
<tr>
<td>DR_COMM</td>
<td>-</td>
<td>-1.05***(.088)</td>
<td>0.122(.090)</td>
<td>1.22**(0.074)</td>
</tr>
<tr>
<td>Size (in 1000 beds)</td>
<td>-</td>
<td>-0.4***(.049)</td>
<td>-0.362***(.050)</td>
<td>-3.83***(.042)</td>
</tr>
<tr>
<td>Gov</td>
<td>0.058***(.014)</td>
<td>-0.055***(.015)</td>
<td>-0.116***(.016)</td>
<td>-0.085***(.013)</td>
</tr>
<tr>
<td>NFP</td>
<td>-0.038***(.011)</td>
<td>-0.046***(.012)</td>
<td>-0.095***(.013)</td>
<td>-0.069***(.011)</td>
</tr>
<tr>
<td>Disch</td>
<td>-0.103***(.003)</td>
<td>0.024***(.009)</td>
<td>-0.049***(.009)</td>
<td>-0.063***(.007)</td>
</tr>
<tr>
<td>Model Fit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>60.05%</td>
<td>11.75%</td>
<td>51.27%</td>
<td>66.55%</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>1026.45</td>
<td>905.52</td>
<td>875.6</td>
<td>1161.35</td>
</tr>
<tr>
<td>AIC</td>
<td>1.49</td>
<td>1.65</td>
<td>1.69</td>
<td>1.32</td>
</tr>
</tbody>
</table>

*** p < 0.01; ** p < 0.05; * p < 0.10
DISCUSSION

Before we discuss the implication of our results, we identify several limitations. First, we suggest caution in generalizing our findings beyond the health care service setting at this time. Although we expect that a comparable pattern of effects will emerge in other service contexts, further validation in different settings is needed and would be instrumental in generalizing the results. Second, although we obtained 3-year archival data from multiple sources, it might be argued that service quality can be measured in a more finer-grained manner (e.g. to include patient safety dimensions). Given that service quality is a multi-dimensional construct, future research may include more dimensions to capture the trade-off in a more fine-tuned way. Third, we recognize that other unmeasured variables may be involved in driving the proposed quality adjusted efficiency. For example, various organizational structure and culture related characteristics may impact the quality adjusted efficiency. We alleviate this limitation by including hospital ownership and total discharge as control variables and also control for unobserved time-invariant heterogeneity in our model. Lastly, we recognize that the amount of variance explained in operational cost efficiency is relatively small (11.8% vs 66.6%) than that for quality adjusted efficiency using the proposed model. Future research may identify more variables that have explanatory power for operational cost efficiency.

One of the central premises of the current research is that quality should be accounted for in efficiency measures in order to reflect service organization’s ability in balancing the quality-efficiency trade-off. Empirically, we propose a SFA model to derive a quality adjusted efficiency, which pertains to the organizational efficiency while maintaining a given level of service quality. The proposed model explains a significant amount of variance in the operational cost. Substantively, the proposed quality adjusted efficiency is indicative of service performance when defined with regard to both quality and efficiency. While prior research recognizes that it is imperative for service organizations to be both cost efficient and providing quality service and that there is a potential trade-off between the two (e.g. Anderson et al 1997; Rust et al 2002), metrics that could actually reflect such trade-off performance are lacking in the extant research. Compared to prior approaches, which often examine the productivity-quality trade-offs by investigating the differential effects of efficiency and quality on customer satisfaction, revenue (e.g. Marinova et al 2008), and/or other financial consequences separately (e.g. Mittal et al 2005), the proposed quality-adjusted efficiency approach offers one way to directly address the productivity-quality trade-off by simultaneously modeling the two in forming one metric. The proposed quality-adjusted efficiency is distinct from the traditional operational cost efficiency as evidenced by the small amount of shared variance between the two. Further, this study offers insights on how organizational factors shape service efficiency by disentangling their impact on operational cost efficiency and quality-adjusted efficiency, respectively. Specifically, the current research results suggest that cultivating high-quality frontline interactions with the customers is one way that service firms can better perform in making quality-efficiency trade-off. While prior research has found supporting evidence on quality of frontline interactions being a significant contributor to service quality improvement (Brady and Cronin 2001; Parasuraman et al. 1988), our findings take this contention one step further and argue that focusing on high-quality frontline interaction may help firms (e.g. to design their organizational structure and/or adapt organizational process) make better strategic and tactic decisions in such a way that they could achieve better performance in making quality-efficiency trade-off.

While the conventional wisdom believes that larger organizations generally are more efficient and prior research has found supporting evidence in various settings (Growitsch et al. 2009; Watcharasriroj and Tang 2004), our study shows that the operational economy of scale may not always hold in the service sector, nor are larger-size organizations better at making quality-efficiency trade-offs than smaller ones. This finding is consistent with the contingency theory of organizations (Donaldson 2001). That is, organizational outcomes (e.g. efficiency) are determined by the fit between the organizational structure, organizational processes, and the operating environment. When it comes to scale expansion, our research would advise hospitals to warrant such strategic move not on the grounds of enhancing efficiency, but on other important strategic benefits (e.g. synergy in knowledge sharing).
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EMPLOYEE BRAND ATTACHMENT: A JOB DEMANDS-RESOURCES THEORY PERSPECTIVE

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The notion that consumers form attachments with brands is firmly rooted in consumer research (Fournier and Alvarez 2012; Fournier 1998; Kervyn, Fiske, and Malone 2012). Brand attachment has been defined as the strength of the bond connecting the brand with the self (Park et al. 2010). When consumers feel a strong connection with a brand, consumption of the brand then serves to enhance their identity, and enables them to self-construct, self-expand and extend their social network (Fournier 2009). Essentially, consumption of the brand provides consumers an avenue for self-expression and general happiness as a result of the brand relationship. Indeed, brand attachment has been called “the ultimate destination for customer-brand relationships” (Park et al. 2010, p. 2). Not surprisingly, the construct has garnered much research attention in the consumer-marketing realm.

Although extant marketing research underscores the importance of consumer brand attachment, research has yet to consider the idea that attachment to the brand may also serve as an important resource for employees of the brand. We argue that an employee’s connection to the brand may serve as a resource that can benefit them on the job. We suggest that brand attachment is likely to be very important for frontline employees (e.g., salespeople, customer service personnel, store managers, etc.), because their jobs largely rely on continual engagement with their brands. In essence, frontline employees are the face of the brands they represent.

In the current study, we address the importance of brand attachment for one group of frontline employees, salespeople. Specifically, we consider the effect of salesperson brand attachment (SBA) on the salesperson’s selling effort, job stress and job satisfaction. We aim to make the following contributions: (1) enhance understanding of how SBA aids salespeople in a sales environment as a psychological resource (2) use Job Demands-Resources (JD-R) theory as a framework to model SBA as it relates to the variables of brand selling effort, job induced-anxiety-stress-tension (job-iast) and job satisfaction, and (3) assess how two dimensions of organizational culture, job codification and hierarchy of authority, moderate the hypothesized relationships.

CONCEPTUAL DEVELOPMENT

A central premise of the Job demands-resources (JD-R) model is that every occupation has factors that relate to job stress (Bakker and Demerouti 2007). These factors bifurcate into job demands or job resources (Bakker and Demerouti 2007). Job demands are defined as “the physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs” (Demerouti et al. 2001, p. 501). Job resources are “physical, psychological, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands of the associated physiological and psychological costs; (c) stimulate personal development and growth” (Demerouti et al. 2001, p. 501).

JD-R consistently suggests that the presence of job stressors does not necessitate harmful effects for employees. Essentially, when encountering high demands, employees assess whether or not they have the resources to manage the demands. According to Lazarus and Folkman (1984), stress results when external factors act as stressors, and disrupt the individual’s perception of the equilibrium of the cognitive-emotional-environmental system. To the extent that an employee believes that he/she has the resources to cope with the demands, then he/she will not experience harmful stress. Along these lines, JD-R suggests a two-step process. First, job demands are encountered. These demands lead to overtaxing. Second, job resources are weighed. Ultimately, it is the combination of job demands and resources (or a lack thereof)
that dictates whether or not overtaxing leads to stress and withdrawal (e.g., Demerouti et al. 2001). Understanding the interaction of job resources and job demands is paramount to explaining stress, and consequently satisfaction.

In the current study, we propose that attachment to the brand serves as a powerful resource for salespeople, while components of organizational structure, including job codification and a strict hierarchy of authority may represent demands. As such, the study provides a test of the JD-R framework by considering the interaction between a psychological resource, brand attachment, and the organizational job demands of job codification and hierarchy of authority. The conceptual model of these relationships is shown in Figure 1.

**Figure 1. Conceptual Model**

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**HYPOTHESIS DEVELOPMENT**

Prior research indicates that brand attachment serves many purposes to consumers (Fournier 2009). Brand attachment may also be a resource of use to salespeople. Of specific relevance from the consumer literature is the finding that a “brand’s prominence and linkage to the self” (Park et al. 2009, p. 328) may influence consumers to invest effort and resources in the service of maintaining a brand relationship (Park et al. 2010, p. 4). In this regard, we propose that salespeople, who are attached to the brand, will invest time, talents and effort in activities that support and sustain their brand relationship. The employee’s investment in the brand relationship is likely to drive personal growth and development. To the extent that the salesperson feels a strong connection with the brand, he/she will likely exhibit a strong desire to maintain the focal brand relationship. Furthermore, the salesperson with brand attachment has an advantage over the salesperson without brand attachment. The salesperson with brand attachment will have psychological resources available, that the salesperson without brand attachment will not enjoy.

Given a strong attachment to the brand, brand-selling effort may then be viewed as accomplishing not only organizational goals, but also personal goals. Thus, being attached to the brand, serves as a direct motive to engage effort in selling the brand. A beverage sales rep, who feels a personal connection to the Budweiser brand, for example, is likely to work hard to support the brand because doing so offers personal fulfillment, not just economic gain. Thus, we predict that SBA will increase brand-selling effort.
H1a: SBA will increase brand-selling effort.

Based on JD-R theory, we predict salespeople may leverage the SBA resource to reduce job-induced stressors (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009; Xanthopoulou et al., 2007). In our study, we include a global measure of job-induced anxiety/stress/tension (job-iast). Job-iast is defined as the salesperson’s perceptions of “tensions or pressures due to job requirements, including the psychological and physical consequences of such pressures” (Fry, Futrell, Parasuraman, & Chmielewski, 1986, p. 153). Recognizing that the more psychological resources an individual has, the greater will be the individual’s coping ability (Bandura 1978a; b; Xanthopoulou et al. 2007), we predict that salespeople high in SBA will not only exhibit greater brand selling effort, but also experience less stress (Xanthopoulou et al. 2007).

H1b: SBA will reduce job-iast.

Previously, job codification has been used in the literature as a measure of formalization in organizations. Job codification refers to the extent to which the salesperson’s flexibility to handle sales related tasks and activities is constrained by the organizational structure (Agarwal & Ramaswami 1993a; 1993b; Aiken & Hage 1966). Commonly, salespeople’s resources are taxed because their position at the interface between the firm and the customer requires them to resolve conflict. JD-R research has shown that some job demands increase stress (Bakker, Demerouti, and Verbeke 2004). We theorize that job codification may be such a demand because it strictly prescribes how the sales job should be executed. It limits the latitude, flexibility and autonomy a salesperson can employ to juggle conflict (Deshpandé 1982). Low levels of job codification should allow a salesperson the latitude to determine how best to do their job. A reduction in job codification, hence an increase in flexibility, has been shown to increase effort and also decrease stress. Consistent with prior research, we suggest the following:

H2a: Job codification will decrease brand-selling effort.

H2b: Job codification will increase job-iast.

Decentralization, or the extent to which decision-making authority is shared in the organization (Hage and Aiken 1967), empowers employees, because it enables them to make and influence decisions (Spreitzer 1995). Meanwhile, centralization represents a decision-making system that is concentrated at the upper-levels of the organization. Centralization is comprised of two dimensions, including employee participation in decision making and the presence of a clear hierarchy of authority (Deshpandé 1982). Hierarchy of authority is defined as “the extent to which authority to make decisions affecting the firm is confined to higher levels of the hierarchy” (Deshpandé 1982, p. 94). In the presence of a clear hierarchy of authority, salespeople are not given the freedom to make decisions. As frontline employees, salespeople often have access to different market information than upper-level managers. A rigid hierarchy of authority constrains the employee’s ability to use first-hand market information and is likely to result in frustration, and other negative effects for those working within the system. Along these lines, prior research also suggests that a strict hierarchy of authority decreases employee’s perceptions of influence and feelings of empowerment, has detrimental effects on motivation, and minimizes information flow throughout the organization (Hempel, Zhang, and Han 2012). As a result, we propose that a rigid hierarchy of authority places limitations on the salesperson that will serve to decrease brand-selling effort, and increase general stress-levels.

H3a: Hierarchy of Authority will decrease brand-selling effort.

H3b: Hierarchy of Authority will increase job-iast.
Job demands-resources interaction effects.

The dual interaction processes in JD-R theory suggest that different job demands/resources can interact to moderate direct relationships. We propose moderating effects on the SBA-brand selling effort relationship, as well as the SBA-job-iast relationship previously predicted. A key question is whether the proposed SBA resource can buffer against the decrease in brand selling effort, and the increase in job-iast caused by job demands, such as increased formalization and centralization. We suggest that high levels of job codification interact with brand attachment to dampen the positive relationship brand attachment has on brand selling effort. Salespeople may recognize high levels of job codification as a management signal suggesting a lack of latitude given to the salesperson. This negative signal may cause the salesperson to feel efforts are fruitless, negatively influencing SBA’s influence on brand selling effort.

Further, job codification may interact with brand attachment to weaken the negative relationship between brand attachment and job-iast. Again, we anticipate that SBA is likely to act as a resource helping reduce job stress, because the salesperson that feels some level of attachment to the brand is likely to experience less incongruity selling the brand. However, if the salesperson believes that he/she is specifically not provided adequate flexibility to do the job, salesperson’s stress will increase regardless of brand attachment. If the salesperson does not have the latitude to do the job as he/she sees fit, this likely creates stress regarding work processes and outcomes, despite a strong connection with the brand. Thus,

H4a: Job codification will diminish the positive relationship of SBA on brand-selling effort.

H4b: Job codification will diminish the negative relationship of SBA on job-iast.

Similarly, we expect that a clearly defined hierarchy of authority may also interrupt the benefits of SBA to the salesperson. To the extent that decision-making authority is taken out of the hands of the brand-attached salesperson, it is likely to diminish the salesperson’s ability to leverage benefits associated with attachment. For example, if the salesperson feels a strong level of attachment to one brand in the portfolio (e.g., Budweiser), yet he/she is not able to make decisions regarding how he/she manages activities associated with support and sales of the brand, then it is likely to interrupt the salesperson’s desire to expend effort, as well as increase stress levels. Furthermore, increased hierarchy of authority has been shown to prevent information flow throughout the organization (Hempel, Zhang, and Han 2012). To the extent that the salesperson is unable to communicate important brand information to superiors, then a salesperson, who feels a deep connection to the brand, is likely to experience frustration. Thus,

H4c: Hierarchy of authority will diminish the positive relationship of SBA on brand-selling effort.

H4d: Hierarchy of authority will diminish the negative relationship of SBA on job-iast.

Finally, consistent with earlier research, we expect that brand-selling effort will positively influence job satisfaction, defined as “a positive emotional state resulting from the appraisal of an individual’s job or job experiences” (Arnold et al. 2009, p. 196). Expend ing effort is viewed as achieving a goal or objective, and research suggests that goal fulfillment leads employees to greater job fulfillment (Hackman and Oldham 1980) or job satisfaction.

Conversely, job-iast likely reduces salesperson job satisfaction. Generally, salesperson job stress has been linked to negative consequences for the employee. Salespeople experiencing job stress are more likely to demonstrate dissatisfaction, emotional exhaustion, feelings of depersonalization, or feelings of reduced personal accomplishment (Goolsby 1992; Sager, Yi, and Futrell 1998). Consistent with prior research, we hypothesize:

H4a: Job codification will diminish the positive relationship of SBA on brand-selling effort.

H4b: Job codification will diminish the negative relationship of SBA on job-iast.

H4c: Hierarchy of authority will diminish the positive relationship of SBA on brand-selling effort.

H4d: Hierarchy of authority will diminish the negative relationship of SBA on job-iast.
H5: Brand-selling effort will increase job satisfaction.

H6: Job-lust will reduce job satisfaction.

**METHOD**

Data were collected from the U.S. beverage industry. The specific focus of this study was sales employees of U.S. beer and soft drink firms. These respondents were sourced from a marketing research company. The marketing research firm posted survey links through its own communication channels, as well as through its access to beverage industry trade groups. Among 168 respondents, fourteen respondents were not sales employees in the beverage industry and dropped in the final sample. This yielded a final sample size of 154.

**Data Analysis**

Confirmatory factor analysis (CFA) was conducted in *Mplus 7.3*. The model showed acceptable fit to the data (Hu and Bentler 1999). RMSEA and SRMR estimates were less than or equal to .08 (Hu and Bentler 1999; Kline 2011). All factor loadings were significant, loading on the appropriate latent construct indicating internal consistency. Composite reliability coefficients and Cronbach alpha coefficients meet adequacy thresholds (Hair, Black, Babin, & Anderson, 2010; Kline, 2011; Nunnally, 1967) with all Cronbach alphas above .70, composite reliabilities above .97, and average variance extracted (AVE) measures greater than .50. Taken together, the measures demonstrate both convergent validity and reliability (Bagozzi 1980; Fornell and Larcker 1981).

In order to test the proposed hypotheses, Latent Moderated Structural Equation (LMSE) analysis is implemented using a robust estimator. (We tested our model using TYPE = RANDOM and ALGORITHM = INTEGRATION specification in Mplus.) The approach has been shown to be more robust than any interaction method (Schermelleh-Engel et al., 1998). All path coefficients of the structural equation model are shown in Figure 2.

**Figure 2. Empirical Results from Revised Model**

*p < .05; ** p < .01; *** p < .001. MISP=modification index suggested path.
RESULTS

H1a predicted that salesperson brand attachment increases brand-selling effort. As shown in Figure 2, the path between brand attachment and brand selling effort is significant ($b = .262, p < .001$). The results provide evidence that brand attachment does serve as a resource for salespeople increasing their brand selling effort. Brand attachment also increases job satisfaction. This path was not formally hypothesized in the conceptual model, but the modification indices indicated that there is a direct relationship between salesperson brand attachment and job satisfaction. This is an interesting finding, and given the self-fulfillment aspects that are argued to result from salesperson brand attachment, it is theoretically plausible. Thus, the path was included in the final structural equation model ($b = 0.489, p < 0.001$). This finding seems to underscore the importance of the brand attachment for salesperson outcomes. H1b predicted, in line with the core process of JD-R theory, that brand attachment would reduce job-iast. However, this hypothesis was not supported ($b = 0.022, ns$).

H2a predicted that job codification would decrease brand-selling effort. The hypothesis was not supported ($b = -0.163, ns$). The assumption was that high job codification would restrain a salesperson’s activities in such a way that (s) he would not invest extra effort in selling the focal brand. H2b predicted, consistent with JD-R theory that job codification, represents a job demand, and would increase job-iast. This hypothesis was not supported ($b = -0.011, ns$).

H3a predicted that hierarchy of authority would decrease brand-selling effort. The hypothesis was not supported ($b = -0.045, ns$). H3b predicted that hierarchy of authority would increase job induced anxiety stress tension. The hypothesis was supported ($b = 0.778, p < .001$).

H4a proposed a moderating effect between salespeople’s resource of brand attachment and job codification that would serve to diminish the positive relationship between brand attachment and brand selling effort. This hypothesis received support ($b = -0.250, p < .01$), indicating that this particular structure of the work environment interacts with a job resource, and subsequently detracts from the expected benefits that brand attachment holds for the brand engagement variable of brand-selling effort (see Figure 3a).

Figure 3a. Moderating Role of Job Codification

H4b proposed a moderating effect between salespeople’s resource of brand attachment and job codification that would serve to diminish the predicted relationship between brand attachment and job-iast. The interaction effect was significant ($b = -0.198, p < .05$). However, the direction of the significant interaction is somewhat surprising. As shown in Figure 3b, low levels of job codification, when combined with high levels of attachment to the brand result in an increase in job induced anxiety-stress-tension. This
result provides some additional evidence that brand attachment might not always result in a positive outcome for the individual sales representative. Again, we point to complex relationships between organizational structure and individual-level brand attachment.

**Figure 3b. Moderating Role of Job Codification**

H4c proposed a moderating effect between brand attachment and hierarchy of authority that would serve to weaken the predicted positive relationship between brand attachment and brand selling effort. This was not supported (b = 0.061, ns). H4b proposed a moderating effect between brand attachment and hierarchy of authority that would serve to dampen the predicted negative relationship between brand attachment and job-iast. The interaction effect was significant (b = 0.107, p < .05). Low hierarchy of authority interacts with high brand attachment to result in reduced job-iast.

H5 predicted that brand-selling effort would increase salesperson job satisfaction. This hypothesis received support (b = 0.505, p < .001). This indicates that the job satisfaction outcome for salespeople is predicted by the JD-R framework’s engagement variable of brand selling effort.

H6 predicted that job-iast, the JD-R framework’s emotion exhaustion / burnout variable in the model, would reduce job satisfaction. Thus, salespeople’s job-induced stress-anxiety-tension works to reduce salespeople’s levels of job satisfaction. H6 was supported (b = -0.347, p < .01).

**DISCUSSION**

This study investigates the interactive effects of salesperson brand attachment and structural characteristics of the selling job that impact important selling engagement and stress outcomes for the salesperson: brand-selling effort and job-induced anxiety-tension-stress, respectively. Additionally, building on Job Resources-Demands theory, we propose that salesperson brand attachment positively influences brand-selling effort and negatively influences job-iast. Subsequently, the variables of job-induced-anxiety-stress-tension and brand-selling effort are shown to exert a negative and a positive influence, respectively on job satisfaction.

The study contributes to existing knowledge in several key ways. First, it fosters a general understanding that brand attachment is an important construct to employees, not just consumers. Salespeople, who report a stronger attachment to the brand, tend to engage (via brand-selling effort) more than their unattached counterparts. Again, the concept that employees have connections with the brands they represent, and the impact that these connections have on important work outcomes has been ignored to date. Second, study results demonstrate the potentially complex nature of brand attachment in an employee context. Tests of interactions with job codification suggest that, at times, brand attachment can
work against the salesperson. In the presence of low job codification, the brand attached salesperson reports high rates of job induced anxiety-stress-tension, than those who are less attached. Third, the study provides a test of a JD-R explanation for the effects of brand attachment on engagement and burnout. The study’s results offer partial support for the posited JD-R theoretical expectations put forward regarding these relationships. Brand attachment seems to serve as a resource to the extent that it impacts engagement; however, it results in no impact on stress. However, the importance of considering interaction effects between brand attachment and potential job demands receives support.
REFERENCES


