ALL TOGETHER NOW: HOW PERCEPTIONS OF UNITY GUIDE CONSUMER JUDGMENTS AND BEHAVIOR

by

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PREFACE

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ABSTRACT

A group of individuals can be seen as a tight group or category with a core essence or as a loose collection of relatively unrelated entities. This dissertation explores how the perceived unity or entitativity of a group or category can be affected by relatively subtle cues, yet has significant effects on consumer judgments and behavior. First, perceived unity can be employed to counteract the historically meager donations to large groups of victims. Entitative groups elicit strong judgments and emotional reactions, so presenting victims in need of charitable support as a tight group (e.g. by calling six children a family or showing endangered butterflies moving in unison) increases donations relative to non-unified but otherwise identical victims. Collections of employees at a company can also vary on whether they seem like a tight category or a loose collection of people. Employees who wear uniforms seem more categorized and unified with each other and with the company, which causes i) more attribution of responsibility to the company for the employee’s behavior, ii) an assimilation of judgments, where one employee’s negative behavior lowers judgments of other employees, and iii) stronger judgments of the company following a service encounter. Theoretical and managerial implications of the antecedents and consequences of perceived unity are discussed.
CHAPTER 1
INTRODUCTION

Historically, researchers have assumed that people make judgments and decisions carefully and consistently, evaluating alternatives based on their expected utility in a manner that is stable across time and contexts (Von Neumann and Morgenstern 1944). More recent work in psychology and other fields contradicts these assumptions. Decisions, judgments, and behavior are subject to a variety of incidental influences (Gilovich, Griffin, and Kahneman 2002). My dissertation research adds to a growing body of research exploring how contextual factors affect how consumers perceive other people and how these perceptions affect group judgments and altruistic behavior (e.g. Garcia et al. 2009; Hamilton and Sherman 1996; Kopelman, Weber, and Messick 2002; Small and Loewenstein 2003; Small, Loewenstein, and Slovic 2007). It shows that people’s judgments and reactions to various targets depend on whether they view those targets as parts of the same category or not, and whether that category seems like a single, coherent whole versus a loose collection of individual parts. For example, people can alternately perceive companies, families, and even individual people as singular entities or as a group of parts. Subtle contextual cues determine whether or not these targets are categorized together into a unified whole; yet these perceptions have significant consequences on consumer judgment and decision-making.
THEORETICAL BACKGROUND

Categorization is a fundamental aspect of human cognition (Cantor, Mischel, and Schwartz 1982; Freedman, Riesenhuber, Poggio and Miller 2001; Mervis and Rosch 1981). It occurs when multiple objects are treated equivalently (Mervis and Rosch 1981), whether through simple collective labeling (e.g. “this is a Chinese restaurant”) or inferences based on learning about the category (e.g. “this is a Chinese restaurant, therefore they probably serve egg rolls”). How people structure these groups and categories has a variety of effects for judgments and behavior, including assimilation effects, where judgments of group-members converge, and contrast effects, where group-members are compared against each other (Bless and Schwarz 2010; Schwarz and Bless 1982). Similarly, how unified or entitative the category seems has a variety of important consequences as well.

Entitativity is defined as “the degree of having the nature of an entity, of having real existence” (Campbell 1958, 17). Past research has operationalized this construct in various ways. For instance, Bartels and Burnett (2011) employed a perceptual manipulation of entitativity and showed that a group of objects moving together in an organized manner on a computer screen were perceived as more entitative than objects moving randomly. Conceptual manipulations involved assigning individuals to be members of different types of social groups. Perceived entitativity is highest for “intimacy groups”—groups that are relatively impermeable, important for its members, and in which members share common goals. Examples include professional sports teams,
rock bands, and families (Lickel et al. 2000). In contrast, little entitativity is perceived, for instance, among a group of people waiting at a bus stop together (Lickel et al. 2000). There are also individual differences in the tendency to see groups as entitative. Some people tend to believe that people’s underlying characteristics are fixed. These “entity theorists” are predisposed to see social groups as more entitative. Others (“incremental theorists”) believe that people’s underlying characteristics are dynamic and cultivatable with time and effort, and tend to see groups as less entitative (Dweck 1999; Dweck, Chui, and Hong 1995; Levy, Stroessner, and Dweck 1998; Park and Roedder John 2010; Plaks et al. 2004).

For an outside observer, understanding the nature of highly entitative groups can be useful. Unlike low-entitativity groups in which members may vary widely, inferences about highly entitative groups are more likely to be generalized and transferred across members (Crawford, Sherman, and Hamilton 2002; Spencer-Rodgers, Hamilton, and Sherman 2007), in part because they seem more homogenous and representative of each other (Bless and Schwarz 2010). These inferences also allow people to predict the behavior of different group members (Rydell and McConnell 2005). Finally, because entitative groups are seen as less likely to be alterable, predictions may be useful over a longer time period (Yzerbyt, Corneille, and Estrada 2001).

Perhaps as a result of these functional aspects, information processing for highly entitative groups is qualitatively different from that for groups low in entitativity. Information about entitative groups is processed in an integrative manner which involves “going beyond the information given” (Bruner 1957; cited in Hamilton, Sherman, and Maddox 1999) such that the assessment of the whole comprises more than the sum of its
parts (Kimchi 1992). For instance, when people judge an entitative group, they elaborate more on the available evidence (McConnell, Sherman, and Hamilton 1997), and make spontaneous dispositional inferences about the group’s traits and motivations (Yzerbyt, Rogier, and Fiske 1998). In addition, when people receive consistent and inconsistent information about a target, they recall the inconsistent information better when they are told the target is an entitative group, but they are also more likely to ignore that information or assimilate it with more consistent evidence (Vonk and van Knippenberg 1995). People also tend to organize information about entitative groups and store it in memory as they acquire it on-line (McConnnell, Sherman, and Hamilton 1994) and engage in evaluation of the information as they receive it, rather than processing it in a neutral manner (Srull, Lichtenstein, and Rothbart 1985; Srull and Wyer 1989). In short, when processing information about entitative groups, people engage in greater and more integrative processing of information in an attempt to extract an underlying essence (Hamilton et al. 1999; Rydell and McConnell 2005).

Several judgmental consequences of these processing differences have been shown (see Hamilton, Sherman, and Lickel 1998 for a review). High-entitativity groups can elicit stronger, more extreme judgments than low-entitativity groups, with magnified attributions and trait inferences (Dasgupta, Banaji, and Abelson 1999; Geier, Rozin, and Doros 2006; Mishra 2009; Mishra, Mishra, and Nayakankupam 2006; Raghubir and Srivastava 2009; Susskind et al. 1999; Thakkar 2006). People also feel more confident in their judgments about entitative groups, and require less information to make these judgments (Castano, Sacchi, and Gries 2003).
OVERVIEW OF CHAPTERS

The second chapter of my dissertation explores the antecedents and consequences of victim unity in the charitable giving domain. It opens with an illustrative example of the phenomenon: The micro-financing website Kiva allows people to search through donation requests of needy causes and lend money to the cause or causes of their choice. Recent research has found that people are more likely to lend money to causes that benefit a single needy person than multiple needy people (Galak, Small, and Stephen 2011). Other previous research documents the phenomenon that people give generously toward single victims but are far less charitable toward the many victims of large-scale tragedies (Slovic 2007). Researchers and practitioners have struggled to resolve this tragic misallocation of resources in this extremely consequential domain (Small, Loewenstein, and Slovic 2007), lamenting that history is bound to repeat itself with muted responses to large-scale tragedies such as genocide because “there are no simple solutions” (Slovic 2007 pg 91).

This problem is well-known, but previous attempts to avoid it and increase the response to multiple victims have failed (Small, Loewenstein, and Slovic 2007). In the second chapter of my dissertation, I show that a more general phenomenon of over-responding to singular targets and under-responding to multiple targets drive this issue. Thus, generosity to multiple victims can be increased by simply making them appear singular. For example, collections of Kiva borrowers receive significantly more support when they seem like a tight group of people than when they appear less unified. Across five additional experiments, I manipulate the perceived unity of victims of tragedies in a
variety of ways (e.g. showing butterflies moving in unison or calling a group of children a family) and examine how this affects actual monetary donations to them. I find that perceived unity generally increases the amount of money donated to the victims. This research has the potential to improve societal welfare by increasing donations to multiple victims back to the levels donors allocate to a single victim. It also provides important theoretical insights into the psychological determinants and consequences of perceived unity—it shows that perceived unity magnifies emotional and judgmental reactions to targets. Therefore, in an important qualification to this finding, victims that evoke negative feelings (e.g. child criminals) receive lower donations when they are unified than when they are not.

The third chapter explores antecedents and consequences of the perception that a collection of employees comprise a unified or entitative category. Specifically, it shows that employees who wear uniforms seem more unified with each other and with their company than otherwise identical employees who are not wearing uniforms. This affects the inferences consumers draw from their experiences with employees in a variety of ways. First, the behavior of a service employee is more attributed to the company when the service provider wears a uniform. Second, uniforms produce an assimilation of judgments across employees, where poor service from one uniformed employee lowers judgments of other uniformed employees at the company. Third, a service experience with a uniformed employee has more dramatic effects on judgments of the company than identical service from a non-uniformed employee. Finally, uniforms produce a contrast effect across companies, where poor service from a uniformed employee improves judgments of other companies in the same industry.
The fourth chapter begins with a short summary of this research. Next, it explores a variety of implications, including how it relates to other research topics, such as attribution in-group/out-group effects, and many others. Finally, it presents several future directions for related projects on the topic of categorization and perceived unity.

In summary, my dissertation research explores perceived unity, both its causes and its psychological and behavioral consequences. By better understanding the psychological process underlying perceptions of unity and the impact of those perceptions on judgments and behaviors, I am able to show how subtle marketplace variables such as employee-uniforms affect perceptions of unity and yield important marketplace implications. This research can be applied to a variety of contexts of interest to public policy makers, economists, psychologists, and marketers.
CHAPTER 2
MORE FOR THE MANY: THE INFLUENCE OF ENTAILATIVITY ON CHARITABLE GIVING

One of the most puzzling and troublesome observations in the domain of charitable giving has been the relatively muted donations to a large number of "statistical" victims in contrast to the generosity to a single identified victim (Small and Loewenstein 2003; Slovic 2007). For instance, in one study, participants read a donation appeal for the millions of children in need of help in Africa. A second group of participants saw a picture of a girl named Rokia and read a brief description about her. Participants donated more to the single identified victim than to the statistical victims (Small, Loewenstein, and Slovic 2007; see also Kogut and Ritov 2005a, 2005b). People can also be insensitive to the extent of the tragedy when it involves a large number of victims. For instance, in another study people donated roughly the same amount to save 2,000, 20,000, or 200,000 birds from drowning in oil ponds (Desvousges et al. 1993).

This comparative apathy toward large numbers of victims has been decried as difficult to overcome, seen as an inefficient allocation of public resources, and as partially responsible for historically meager responses to large scale human tragedies (Slovic 2007). Past research has examined several factors leading to this phenomenon. One important driver appears to be information processing style: A single identified
victim can trigger more affective processing while large numbers trigger a more deliberative processing style which can reduce sympathy (Slovic 2007; Small et al. 2007; see also Dickert 2008; Dickert, Sagara, and Slovic 2011). Another important factor is sensitivity to proportions. People tend to donate more generously as the reference group to which victims belong grows smaller and the proportion helped thus increases (Bartels and Burnett 2011; Slovic, Fischhoff, and Lichtenstein 1980). Because the unit of reference for a single identified victim may be the victim herself, such appeals may give the impression that a greater proportion of the reference group is being helped while donations to statistical victims may be seen as mere drops-in-the-bucket (Bartels and Burnett 2011; Jenni and Loewenstein 1997; Singer 1972).

Recent research has suggested that another factor, entitativity, may play a role in how people react to single victims versus large groups. The concept, which refers to the degree to which a collection of individuals comprises a single coherent entity (Campbell 1958), was evoked to explain why identifying information has a greater effect on donations for a single victim than for a group (Kogut and Ritov 2005a, 2005b). A single individual may be inherently more entitative than a group, and entitative units are processed and judged differently than non-entitative ones (Hamilton and Sherman 1996). This could potentially explain the greater effect of identifying details for the single victim (Kogut and Ritov 2005a, 2005b).

While past research has noted a possible role that entitativity may play in donations, the specific effect of this construct has not been shown. Kogut and Ritov’s focus was on scope (single victim versus a group) and identifiability; their studies did not manipulate or measure entitativity. In other work (Dickert 2008), entitativity was
proposed as one of the process variables linking processing to affective reactions and donations but, again, was not manipulated. As these researchers suggested, entitativity could indeed be one of the factors that differ between a single victim and a group, but there could be others. My goal is to explore the effect of entitativity on donations to multiple victims, and to study the process by which the effect might occur. As such, my studies are the first to manipulate entitativity as the construct has been conceptualized in the literature, holding constant other factors such as the number of victims and whether they are identified. I find that entitativity results in more extreme judgments of donation targets, triggering greater feelings of concern and higher donations.

Some charity organizations use what we know about the strong reaction to images and personal stories of an individual victim to try to render greater support for multiple victims. For example, the microloan site kiva.org, which provides a platform for individuals or groups to borrow money from Kiva members, focuses on single borrowers even in cases where groups of borrowers are soliciting money. In other words, though a funding appeal might display a picture with 12 individuals, the group description might read, “Maria, 31, is a married mother of two small children. She will use the loan to fund her produce stand…” I theorize that presenting large numbers of victims in a way that makes them seem unified may be another way to increase support. In a preliminary examination of this, I tracked funding rates to 157 groups on the kiva.org site. I then submitted the group photographs from the website to 90 participants on Amazon Mechanical Turk. Each participant rated 50 randomly selected photographs on the “degree to which the people in the picture typify what it means to be a group.” I standardized these ratings within participant, and then averaged the standardized ratings
to create an entitativity score each of the 157 photos. Next, I regressed the average funding per hour (total loan request divided by total hours to fully fund) on those mean standardized entitativity ratings. I found that a one standard deviation increase in perceived group entitativity (as inferred from only the photo) increased the rate of funding by $41 per hour ($t(156) = 2.43, p = .016$).

This field data suggests that entitativity can indeed increase charitable response. By focusing on only groups and examining the role of entitativity—an intrinsically group-related factor (Campbell 1958)—the present research also shifts the emphasis from the strong reaction toward a single victim to the muted reaction toward large numbers of victims (Dickert 2008; Kogut and Ritov 2005a, 2005b; Small and Loewenstein 2003).

My work also contributes to the research on entitativity in social psychology. In contrast to that research, which focused primarily on judgments (e.g. Hamilton 2007), my work examines the behavioral consequences of entitativity. The effects in my studies, most of which involve actual donations, are substantial. I identify conditions under which entitativity increases donations to large numbers of victims, as well as when it decreases donations. In addition, past work on entitativity has had a cognitive emphasis, showing how entitativity affects the way information about the target is processed (Hamilton and Sherman 1996; Hamilton 2007). Like this past work, which I review next, my findings implicate differences in information processing, but I show additionally that this triggers greater emotional concern and affects donations.

THEORETICAL BACKGROUND AND HYPOTHESES
As I discussed, consumers process entitative groups in an integrative fashion that attempts to extract the group’s underlying essence (Hamilton et al. 1999; Rydell and McConnell 2005). Several judgmental consequences of these processing differences have been shown (see Hamilton, Sherman, and Lickel 1998 for a review). The key consequence for this chapter is that high-entitativity groups tend to elicit stronger, more extreme judgments than low-entitativity groups, with magnified attributions and trait inferences (Dasgupta, Banaji, and Abelson 1999; Geier, Rozin, and Doros 2006; Raghubir and Srivastava 2009; Susskind et al. 1999; Thakkar 2006). Thus, for instance, the same group of poor children may be judged more positively if they belong to a coherent unit such as a family than if they do not. This magnification of judgments, I suggest, will trigger greater emotional concern for the children. Because many donation decisions ultimately depend on emotions, I expect that greater emotional concern will trigger greater willingness to donate (Bagozzi and Moore 1994; Batson et al. 1991; Batson and Coke 1981; Carlson and Miller 1987; Dickert 2008; Dickert and Slovic 2009; Izard 1977; Kogut and Ritov 2005a, 2005b; Tomkins 1970).

H1: Donation targets that are perceived as highly entitative will elicit greater donations than targets that are perceived as less entitative.

The rationale for this hypothesis is that the integrative processing associated with entitative groups will result in more extreme judgments, greater feelings of concern, and consequently higher donations. Notably, greater feelings of concern also account for the higher donations for a single identified victim. However, in that past work, these feelings
are the result of affective/experiential processing (Slovic 2007; Small et al. 2007; see also Dickert 2008; Dickert, Sagara, and Slovic 2011), which is fast and relatively effortless. Conversely, in my work, the feelings of concern are the end result of integrative processing, which, as I’ve discussed, involves increased elaboration and strong, holistic judgments of the group. In support of this conjecture, Hamilton, Sherman, and Lickel review evidence that suggests “perceivers do not process information about highly entitative targets (persons or groups) in a simple and heuristic fashion. Rather, perceivers seem to process information more extensively and attend to inconsistencies in behavior to a greater degree for such targets” (1998, 60). Nonetheless, to explore this issue further, in my studies I measure the extent to which the donation decision is made using experiential thinking and rational thinking styles.

Another alternative account, also based on prior work on single identified victim, is that the clearer unit of reference for entitative groups may give the impression that a greater proportion of the reference group is being helped and thus increase the perceived impact of donations (Jenni and Loewenstein 1997). As noted earlier, people tend to donate more as the reference group grows smaller and the proportion helped increases (Slovic et al. 1980). For instance, a disease that kills 100 people out of a group of 100 seems more severe and worthy of response than a disease that kills 100 across a country (Small and Loewenstein 2003). It is possible that the entitative unit (e.g., a sports team, a family) acts as its own reference group and donations to help its members seem more effective or impactful than donations to those that do not belong to a well-defined unit (Bartels and Burnett 2011; Singer 1972).
Somewhat related, it is also possible that donating to high-entitativity groups is seen as more effective because their members tend to be more organized, share common goals, and interact with each other to a greater extent. People might thus think that they are also more likely to make more efficient use of donated resources (Clark and Wegener 2009). Other research has shown that perceived effectiveness can play an important role in donation decisions (Cryder and Lowenstein 2011; Sharma and Morwitz 2012).

Finally, there may be something aesthetically pleasing about the unity and wholeness of entitative groups, as suggested by Gestalt principles (Geier et al. 2006; Kimchi 1992; Veryzer and Hutchinson 1998)—a sort of “bias for the whole” (Mishra, Mishra, and Nayakankuppam 2006). Gestalt features are associated with goodness and beauty, and are also related to optimality and social norms (Katz 1950; Koffka 1935; Lauer 1979; Veryzer & Hutchinson 1998). For instance, people feel that a single entity is the appropriate amount in food consumption, resulting in greater consumption when units happen to be large (Geier, Rozin, and Doros 2006). Similarly, higher donations to entitative groups may be driven by a general sense of greater aesthetic or social/moral appeal, rather than by a different processing of information that results in more extreme judgments of its members, as I suggest.

I employ several strategies to test my proposed explanation and address these alternative accounts. First, I report two studies that test the effect of entitativity without reference to any unit. One of these enhances perceived entitativity through the common movement of donation targets, while the other study measures individual differences in the tendency to perceive entitativity, holding the properties of donation targets constant. The absence of a unit to which donation targets belong makes the proportion-of-victims-
impacted explanation, which rests on the notion that a greater share of a reference-unit is
helped, less plausible. The absence of a unit (e.g., family) also addresses the possibility
that there is something socially or morally more appealing about entitative groups.

Second, I collect judgments of donation targets and measure confidence in those
judgments. Past research has shown that people not only make more extreme judgments
about entitative groups but also, as a result of greater and more integrative processing of
the information, feel more confident in their judgments (Castano, Sacchi, and Gries
2003). Judgments of donation targets and confidence in those judgments would not be
expected to differ if entitativity affected donations through inferences about
effectiveness. I further address the effectiveness-based accounts head-on by measuring
the perceived effectiveness of donations in multiple studies.

Finally, I address these alternative accounts by testing for an interaction between
entitativity and target valence on judgments and donations. Although in most cases
donation targets are represented relatively positively, there may be donation victims that
share at least some negative features (e.g., children in need of help but who have
committed crimes in the past). If, as I suggest, entitativity affects donations by
magnifying donors’ judgments of targets, then donations to entitative targets that share
negative features may be lower than donations to non-entitative targets that share the
same negative features. This is because entitativity will in that case magnify the negative
judgments of the victims, which would then reduce feelings of sympathy and concern.

In a somewhat parallel finding, identifying a perpetrator results in increased
punitiveness (Small and Loewenstein 2005). I suggest a related prediction but i) focus on
a different factor—entitativity rather than identifiability, ii) study a different behavior—
donations instead of punishment, and iii) focus on groups rather than an individual. I predict that target valence (whether donation targets are primarily characterized by positive or negative features) will moderate the effect of entitativity predicted in hypothesis 1.

H2: Greater perceived entitativity will increase donations for targets that share primarily positive features but decrease donations for targets that share primarily negative features.

While entitativity may in some cases increase the perceived effectiveness of donations, and while people may find unity itself somehow aesthetically or morally appealing, these explanations cannot account for the reversal predicted in hypothesis 2. Specifically, if entitativity makes people see donations as more effective and this is what drives donations, it should increase donations independent of whether the targets share positive or negative characteristics. That is, unless a person would want his or her money to be used more or less effectively depending on the nature of the donation-target, effectiveness-based accounts of entitativity would predict a main effect. Similarly, if there is something aesthetically or morally desirable and unique about the unit that enhances donations, it should occur for any donation targets that compose a unit. However, if entitativity affects the way the victims themselves are judged, and this triggers different levels of emotional concern as a result, the effect of entitativity on donations may depend on valence, as suggested in hypothesis 2.
I test these hypotheses in four experiments. Study 2.1 uses a perceptual manipulation of entitativity (common movement) and study 3.2 uses a conceptual manipulation of membership in a social unit (family) to test hypothesis 1. Study 3.2 tests hypothesis 1 by measuring individual differences in perceptions of entitativity instead of manipulating the properties of donation targets. Study 4.2 examines the moderating effect of target valence, testing hypothesis 2.

STUDY 2.1: INCREASING DONATIONS TO SAVE VICTIMS THROUGH COMMON MOVEMENT

The original theory of entitativity identifies similarity, proximity, and common fate or common movement as determinants of perceived unity (Campbell 1958). Recent work has manipulated proximity and common movement to successfully influence perceptions of victim entitativity (Bartels and Burnett 2011; Bloom and Veres 1999). In this study, I use a similar manipulation to represent victims as either high or low in entitativity and examine the impact of that manipulation on charitable giving.

Method

One hundred and twelve participants from a university in the UK were recruited to complete a series of experiments for £12. On the computer, these participants read that many species in Britain were threatened by human encroachment on their ecosystems and were presented with a description of a donation opportunity to protect vulnerable butterflies (see sample stimuli in Appendix A; additional materials are available from the
authors). They then saw a screen with the text: “Help Thecla Betulae butterflies to safely hibernate. The butterfly safe house can protect up to 25 adult Thecla Betulae butterflies such as these.”

After a six-second delay, a computer animation showed images of butterflies flying on to this screen over the course of five seconds. In the low-entitativity condition, 25 butterflies flew from different, randomly chosen off-screen locations and followed independent paths to their final positions in the array where they beat their wings at different rates and alighted in a loose, disorderly manner. In the high-entitativity condition, 25 butterflies flew in orderly rows from the right side of the screen, beating their wings in unison and alighted in a tight, symmetric pattern. The next screen appeared after 30 seconds where all participants then indicated how much of their £12 participation compensation they would donate to help the butterflies (in pounds and pence). After participants completed the questionnaire, the experimenter subtracted the donation amount from the total participation payment and gave the participant the balance. After all participants took part in the study, the experimenter presented the donations collected to the Suffolk Wildlife Trust.

Pretest. To assess whether the manipulation successfully produced different perceptions of entitativity, an initial group of participants (N = 77) took part in a pretest adapted from Bartels and Burnett (2011). They were randomly assigned to view one of the two animations used in the main experiment. As the animation played, these participants rated the degree to which the butterflies in the animation seemed like individuals with distinct identities versus a tight group with a single identity (-3 = individuals with distinct identities; 3 = a tight group with a single identity). As expected,
the butterflies in the high-entitativity condition were perceived as more entitative than those in the low-entitativity condition ($M_{\text{high-ent}} = 1.63$, $SD = 1.17$; $M_{\text{low-ent}} = .41$, $SD = 1.39$; $F(1, 75) = 17.33$, $p < .001$, $\eta^2_p = .19$).

Results and Discussion

In this and subsequent studies, a relatively large proportion of participants chose not to donate (in this study, 50%). Therefore I analyzed the data using a TOBIT regression examining the extent to which the manipulation of entitativity affected donations (Amemiya 1985; Greene 2003). In each study, the TOBIT regression was run with zero (no donation) as a lower limit and the highest donated amount in that study as the upper limit. In this study, the TOBIT analysis was run with zero and three British pounds as lower and upper limits, respectively. Results revealed that participants in the high-entitativity condition donated more than those in the low-entitativity condition, $\beta = .193$, $t(111) = 1.99$, $p = .05$ (see table 2.1 for means). In this study and in all others, I replicated this analysis using ANOVA and linear regression and found similar results.

Insert table 2.1 about here

The results of this experiment demonstrate that greater perceived entitativity produces higher donations. This study employed a perceptual manipulation of the construct, presenting donation targets engaged in common movement or not. In the next
study, I employ a conceptual manipulation of the construct by assigning donation targets to an intimacy group (a family).

**STUDY 2.2: INCREASING DONATIONS TO VICTIMS THROUGH MEMBERSHIP IN AN INTIMACY GROUP**

This study manipulates entitativity by assigning victims in the donation appeal to an “intimacy group.” This is a well-known, strong instantiation of the construct: Lickel et al. (2000) collected entitativity ratings for 40 social groups and found that intimacy groups such as families, rock bands, and professional teams received the highest ratings of entitativity. I varied entitativity by referring to a group of children in the donation appeal as belonging to the same family or not. I also collected judgments of donation targets and confidence ratings to elucidate the process through which entitativity affects donations.

**Method**

Seventy participants from a university in the UK were recruited to complete a series of experiments for which they were paid £10. On the computer, participants were presented with a description of a donation opportunity to help six children in Africa continue their education. The appeal described the need for donations to fund a £300,000 facility that would help these and other children become productive members of society. The children in the appeal were presented with names and a picture (Kogut and Ritov 2005a, 2005b; Small et al. 2007; see sample stimuli in Appendix A). In the high-
entitativity condition, the six children were referred to as six siblings from the same family (Lickel et al. 2000). The low-entitativity condition was identical in every way, including the portrait, except that the children were not referred to as a family.

After reading the donation appeal, participants answered a series of questions about the children used in previous research (e.g. Karpinski and Steinman 2006; Greenwald, McGhee and Schwartz 1998). First, participants rated the extent to which they imagined the children as bad versus good, unpleasant versus pleasant, and disgusting versus beautiful on 11-point scales (e.g., -5 extremely bad to 0 neutral to 5 extremely good). Next, they indicated how confident they were in these judgments about the children (1 = not at all; 9 = extremely). Participants were then given the option to donate some of their £10 payment to the children on a scale from £0 to £10 in £1 increments. All donations were subtracted from the £10 participation compensation at the end of the session. After all participants took part in the study, the experimenter delivered all of the donations to the charity Africa New Life for the construction of the facility.

Participants next answered several other questions. As a measure of perceived entitativity, they rated the extent to which the group of children in the appeal typified what it means to be a tight group (Rydell and McConnell 2005). This measure is similar but distinct from that used in study 2.1 to accurately reflect previous literature measuring conceptual rather than perceptual manipulations of entitativity. To test the alternative account that entitativity increases the perceived effectiveness of donations, participants rated how effective they thought their donations would be at helping the children (1 = not at all; 9 = extremely). Finally, as noted, to address the possibility that entitativity may trigger differences in experiential versus rational thinking styles (Dickert 2008), I had
participants complete the Situation Specific Thinking Style (SSTS) scale (Novak and Hoffman 2009). This scale measures the extent to which specific decisions or tasks, in this case the donation decision, are completed using rational thinking and experiential thinking. The scale consists of two separate 10-item sub-scales (e.g., “I used my gut feelings” is an experiential item and “I reasoned things out carefully” is a rational item, 1 = strongly disagree; 5 = strongly agree). As suggested for short tasks and choices, I abbreviated the scale by using the top five items from each sub-scale (Novak and Hoffman 2009).

Results and Discussion

*Manipulation Check.* As expected, the group of children in the high-entitativity condition were perceived as more entitative than those in the low-entitativity condition (\(M_{\text{high-ent}} = 5.79, \ SD = 1.75; M_{\text{low-ent}} = 4.73, \ SD = 1.87; F(1, 68) = 5.96, \ p = .02, \ \eta_p^2 = .08\)).

*Judgments and Confidence.* I combined participants’ three judgments about the victims into an index (\(\alpha = .78\)). As expected, an ANOVA revealed that participants in the high-entitativity condition judged the six children more favorably than participants in the low-entitativity condition (\(M_{\text{high-ent}} = 1.98, \ SD = 1.72; M_{\text{low-ent}} = .74, \ SD = 1.78; F(1, 68) = 8.75, \ p < .01, \ \eta_p^2 = .11\)). These judgments were also held with greater confidence in the high-entitativity condition than in the low-entitativity condition (\(M_{\text{high-ent}} = 4.70, \ SD = 1.99; M_{\text{low-ent}} = 3.84, \ SD = 1.68; F(1, 68) = 3.84, \ p = .05, \ \eta_p^2 = .05\)).

*Donations.* As in study 2.1, I used a TOBIT regression to analyze the donation results with zero (no donation) and 10 (highest pound donation selected) as the lower and upper limits, respectively. The results revealed that participants in the high-entitativity
condition donated more than those in the low-entitativity condition, $\beta = .42$, $t(69) = 2.06$, $p = .04$ (see table 2.1 for means). The entitativity measure mediated the effect of the manipulation on donations. Using a bootstrapping analysis of the indirect effect (Preacher and Hayes 2008), I found that the 95% confidence interval did not contain zero (95% BCA CI = -.97 to -.06), indicating significant mediation. Individuals were thus willing to donate more money to children of the same family than to children that are unrelated because the family is a more entitative group.

**Effectiveness and Thinking Style.** Participants in the high-entitativity condition did not believe that their donations would be any more effective than participants in the low-entitativity condition ($M_{high-ent} = 3.61$, SD = 2.12; $M_{low-ent} = 3.16$, SD = 1.92; $F(1, 68) < 1$). The entitativity manipulation also did not affect participants’ thinking style during the donation decision. The high-entitativity condition did not evoke more experiential processing than the low-entitativity condition ($M_{high-ent} = 3.47$, SD = .72; $M_{low-ent} = 3.13$, SD = 1.05) nor did it evoke more rational processing than the low-entitativity condition ($M_{high-ent} = 3.03$, SD = 1.02; $M_{low-ent} = 3.43$, SD = 1.05, $F$’s < 2.6, $p$’s > .1). Processing style was measured in the subsequent studies and did not yield significant results, therefore results for these measures will not be further reported.

These results replicate the result of study 2.1 using a conceptual manipulation of entitativity. Previous work has used similar contexts (e.g., multiple children, Kogut and Ritov 2005a, 2005b), but has not contrasted multiple disaggregated victims to the same victims in an entitative group. My studies are the first to provide this unconfounded test of entitativity on donations. The additional measures show that, in line with my theorizing, entitativity results in more extreme judgments of the victims and in greater
confidence in these judgments. The data also show that perceived effectiveness of donations and processing style were not affected by my manipulation.

The next study has two primary goals. First, in contrast to the previous studies, I hold the properties and presentation of the donation target constant and instead measure participants’ tendency to perceive groups as entitative or not. Second, I present a more complete test of my theoretical account. I argued that entitative victims elicit stronger judgments than victims low in entitativity, triggering greater feelings of concern and donations. Study 2.2 provided partial evidence for this process by showing that a conceptual manipulation affected perceived entitativity, judgments, and donations in line with the theory. In the next study, I wanted to include all process measures within the main experiment. Past research discourages collecting participants’ thoughts and feelings in conjunction with real donations in order to minimize demand effects (Small and Verrochi 2009). Therefore, I employed a hypothetical donation setting in study 2.3.

STUDY 2.3: INDIVIDUAL DIFFERENCES IN PERCEPTIONS OF ENTITATIVITY AND DONATIONS

In this experiment, I depart from victim-focused manipulations of the construct and focus instead on individual differences in perceptions of entitativity. As noted, people vary in the extent to which they believe organisms have fixed versus malleable characteristics, with entity theorists believing that underlying characteristics are fixed and incremental theorists believing that underlying characteristics are dynamic and cultivatable with time and effort (Dweck 1999; Dweck et al. 1995; Levy et al. 1998; Park
and Roedder John 2010). Like observers of highly entitative groups, entity theorists perceive more similarity among group members, make more extreme trait judgments of groups, and hold these judgments with greater confidence, than do incremental theorists (Levy et al. 1998). Entity theorists are also more likely to consider sparse information to be sufficient for making judgments of groups than incremental theorists (Levy et al. 1998). Based on these findings and others, researchers have suggested that entity theorists are predisposed to see groups as more entitative than incremental theorists (Plaks et al. 2004). In donation contexts, therefore, I predict that entity theorists will perceive the same donation targets as more entitative, view them as more favorable, feel more emotional concern, and donate more to them than incremental theorists.

Method

Eighty-nine adult users of Amazon Mechanical Turk (Paolacci, Chandler, and Ipeirotis 2010) participated in this study. Participants were presented with a hypothetical scenario in which 200 gazelles in a sanctuary were being attacked by hyenas and were asked to indicate how much they would donate to help build an $8,000 protective fence (see sample stimuli in Appendix A).

Participants first indicated their donation intention on a scale from $0 to $50 in $5 increments with a fill-in-the-blank other option (this option was never selected). They then rated the extent to which they imagined the 200 gazelles as bad versus good, unpleasant versus pleasant, and disgusting versus beautiful on 11-point scales (e.g., -5 extremely bad to 0 neutral to 5 extremely good (α = .86)). Participants next indicated how confident they were in these judgments (1 = not at all; 9 = extremely). As a measure of
entitativity participants indicated how much the gazelles typified what it means to be a tight group \( (1 = \text{not at all}; 9 = \text{extremely}; \text{Rydell and McConnell 2005}) \). Participants also indicated how effective they thought their donations would be at helping the gazelles \( (1 = \text{not at all}; 9 = \text{extremely}) \). I also explored the role of emotional concern in this effect. As noted, I suggest that entitativity results in more extreme judgments, which translate to greater concern for the targets and higher donations. To test whether the extent to which participants endorsed entity theory affected their emotional concern for the victims, I used a scale adapted from Small et al. (2007) and asked how touching, upsetting, and appropriate was the appeal and how morally responsible and sympathetic participants felt \( (1 = \text{not at all}; 7 = \text{extremely}) \). I combined these five measures into a single measure of emotional concern \( (\alpha = .93) \). Finally I collected the individual difference measure, asking participants to complete the Implicit Person Theory (IPT) scale \( (\text{Levy, Stroessner, and Dweck 1998}) \) with statements such as “As much as I hate to admit it, you can’t teach an old dog new tricks. People can’t really change their deepest attributes” \( (1 = \text{strongly disagree}; 6 = \text{strongly agree}; (\alpha = .94)) \).

Results

Manipulation Check. As predicted, the more participants endorsed entity theory, the more likely they were to judge the 200 gazelles as entitative \( (\beta = .19, t(87) = 1.77, p = .081) \).

Judgments and Confidence. I again combined participants’ three judgments about the victims into a single index. The more participants endorsed entity theory, the more
favorably they judged the gazelles (β = .24, t(87) = 2.27, p = .026) and held these judgments with confidence (β = .22, t(87) = 2.07, p = .041).

*Emotional Concern.* I next examined emotional reactions to the appeal using the feelings of emotional concern index. The more participants identified themselves as entity theorists, the greater was their emotional concern toward the gazelles (β = .51, SE = .20, t(87) = 2.61, p = .011).

*Donations.* The TOBIT regression was run with zero (no donation) and 50 (highest dollar donation selected) as the lower and upper limits respectively, and participants’ average ratings on the IPT scale as a continuous predictor (Park and Roedder John 2010). As anticipated, the more participants identified as entity theorists, the more they indicated they would donate to help the gazelles, β = .39, t(87) = 2.32, p = .022 (see means by median split on IPT in table 2.1).

*Full Causal Model.* I examined how IPT, perceptions of entitativity, judgments, emotional concern, and donations were related by specifying a serial multiple mediator model (Hayes 2012). In line with my theory, a bootstrap analysis of the causal chain from IPT to perceptions of entitativity to judgments to emotional concern to donations yielded a confidence interval that did not contain zero, (95% CI = .42 to .01), indicating a significant overall indirect effect and significant mediation from this process model. All other causal chains involving these three variables yielded confidence intervals for the overall indirect effect of IPT on donations that did contain zero, providing further support for my proposed process model. Because rated entitativity could possibly be construed as a manipulation check of IPT, I also specified a model without the entitativity measure (see Zhao, Lynch, and Chen 2010 for an argument against inclusion). I found that the
confidence interval of the causal chain from IPT to judgments to emotional concern to donations yielded a confidence interval that did not contain zero, (95% CI = .02 to 1.48), indicating a significant overall indirect effect and significant mediation from this process model as well.

Effectiveness. I found that IPT did not have a significant effect on the perceived effectiveness of donations to the gazelles (β = .17, t(87) = 1.57, p > .1).

Discussion

This study shows that victims perceived as entitative garner higher donations than victims that are seen as less entitative, even if the degree of perceived entitativity is a function of the judge, not the stimuli. Like those participants in my previous studies who were presented with perceptually or conceptually entitative victims, entity theorists saw the donation victims as more cohesive, judged them more favorably, were more confident in these judgments, and had stronger emotional reactions to the victims. Replicating the focal effect, entity theorists were also more willing to donate than incremental theorists.

Study 2.3’s serial mediation analyses provide further support for my proposed theory. Endorsing entity theory leads to increased perceptions of entitativity, which leads to stronger judgments about the victims, which leads to feeling more emotional concern, which increases donations. The next study provides further support for my theory using a different approach—moderation. I vary the valence of the donation target, isolating my proposed process and pitting it against rival accounts.

STUDY 2.4: WHEN ENTITATIVITY REDUCES DONATIONS
As noted earlier, there are several alternative process models that predict that entitativity will have only a main effect on donations. For instance, entitativity may increase donations to multiple victims because it makes them seem more efficiently helped or more aesthetically pleasing. If so, any victims, regardless of their valence, would elicit higher donations when presented as an entitative group. I argue that this is not the case. Donations to victims depend on judgments of those victims, and my process uniquely predicts that donation targets who share negative features will be judged even more negatively when entitative. Therefore I predict that victims who share negative features actually elicit lower donations when entitative. Although victims who share negative features are expected to receive lower donations in general, the prediction that entitativity further reduces donations to them provides a strong test of my proposed process model.

Typically, donation targets, being in a position of need, are not characterized by negative features or these are not salient in the donation setting. However, in some donation settings, donors may have mixed feelings about the targets in spite of their circumstances. People are sometimes in a position to donate to others for whom they might not have entirely positive views, and this can affect their generosity. For example, this ambivalence may be one potential explanation for the mere $25 million in donations to Pakistan by Americans five weeks after the 2010 flooding compared to the $900 million in the five weeks following the 2004 Asian Tsunami (Neely 2010). If entitativity results in more extreme judgments of the victims, those judgments will be more positive.
for entitative victims with positive characteristics but more negative for entitative victims with negative characteristics.

In this study, I also build on a previous design that included a single victim condition (Kogut and Ritov 2005a, 2005b). This past research has shown that, under certain circumstances, people donate more money to save a single victim than to save a group of victims (the “singularity effect”). This allows me to examine the impact of valence on the singularity effect.

Method

Participants were 231 students from a large Midwestern university in the U.S. who completed this survey immediately after they were paid $15 for an unrelated experiment. The survey was identical to study 2.2 but with additional conditions. As before, all participants read that a $300,000 facility was required to provide necessary training and education for children in Africa.

Entitativity. I return to the well-established conceptual manipulation of entitativity through membership in the intimacy group “family” (Lickel et al. 2000). Participants were presented with a donation appeal to help six children or six children that belonged to the same family. Identical portraits were used for these six children and family conditions. In addition to these two focal conditions that vary entitativity holding number of victims constant, I included a single-victim condition (Kogut and Ritov 2005a, 2005b). For the single-victim condition, the group portrait was digitally edited in order to present pictures of each child individually, then randomly assigned to the single-victim condition (see Kogut and Ritov 2005a for details). In all conditions, participants read that the
facility was required to provide necessary training and education for these children and other children like them.

Target Valence. Target valence was manipulated by presenting participants with a donation appeal to help poor children in Africa or children in Africa that were in a prison for committing crimes. The descriptions of both situations were based on existing charitable appeals. Specifically, the positive-valence description with the poor children was taken from the website of Africa New Life, where donations were eventually sent. The negative-valence description was taken from the website of UNICEF, where donations were also eventually sent.

Dependent Measures. After reading the donation appeal, participants were asked how much of their $15 they would be willing to donate to fund the facility on a scale from $0 to $15 in $1 increments. These responses and donation amounts were completely anonymous: Participants filled out the survey, put it and their donation in an unmarked envelope, and left it in a box as they exited the room. All donations were subsequently provided to the respective charitable organization by the experimenter.

Pretest. Two hundred and twenty-two participants judged how beautiful, pleasant, and good (α = .85) the children in each condition were. As expected, participants in the positive-valence condition judged the children more positively than participants in the negative-valence conditions (see figure 2.1), $F(1, 216) = 20.30, p < .001, \eta_p^2 = .09$. I also found an interaction of entitativity by valence, $F(2, 216) = 7.61, p = .001, \eta_p^2 = .07$. Contrasts revealed that, as predicted, in the positive-valence condition participants judged the six children that belonged to the same family more positively than the six children that were not related, $F(1, 216) = 8.04, p = .005$. However, in the negative-valence
condition, participants judged the six children that belonged to the same family marginally more negatively than the six children that were not related, $F(1, 216) = 3.14, p = .078$. I also compared judgments of the single child versus the non-entitative six children. In line with the singularity effect on donations, in the positive-valence condition judgments were more positive for the single than the six children that did not belong to the same family, $F(1, 216) = 9.01, p = .003$. Among the negative-valence children, however, judgments were more negative for the single child than the six children that did not belong to the same family, $F(1, 216) = 3.96, p = .048$. There was no difference in ratings for the single child versus family in either the positive- or the negative-valence conditions, $p$’s > .8.

Results

Donations. As in the previous studies, I analyzed the data using a TOBIT regression examining the extent to which the presentation of the victims (one, six, or six siblings in a family) and their valence (positive or negative) affected donations. The model was run with zero (no donation) and 15 (highest dollar donation selected) as the lower and upper limits, respectively. The results are presented in table 2.2.
I am primarily interested in the interaction between how the six children were presented (high- vs. low-entitativity) and valence on donations. As predicted, this interaction was significant, $\beta = 2.55$, $t(225) = 2.80$, $p = .006$. To explore it further, I examined the effect of presenting the six children as a family for positive and negative victims separately. Replicating the effect of study 2.2, in the positive-valence conditions, participants donated more to the six children when they belonged to the same family than when they were unrelated ($\beta = 2.72$, $t(108) = 1.91$, $p = .03$). This pattern was reversed in the negative-valence condition: Here participants donated less to the six children when they belonged to the same family than when they were unrelated ($\beta = -1.94$, $t(117) = 2.10$, $p = .04$). Means are presented in table 2.1.

I also replicated previous findings (Kogut and Ritov 2005a, 2005b) for positive-valence victims: Participants donated significantly less money to six (unrelated) children than a single child ($\beta = 2.34$, $t(108) = 1.66$, $p = .05$). There was no difference between donations to a single versus a family in this condition, though a marginal difference emerged in the negative-valence condition ($t(117) = 1.86$, $p = .065$). Donations for one and six unrelated children in the negative-valence condition did not significantly differ.

Discussion

The results of study 2.4 provide further support for my account. I argued that entitativity tends to increase donations because it elicits more extreme and confidently
held judgments. Adding to the previous studies that used measured variables and a serial mediation analysis to examine this process, the valence manipulation that moderated the effect in this study pits my proposed process against alternative accounts. These results also reveal an important boundary condition to the previously observed positive consequences of entitativity on donations.

Study 2.4 may also provide some insight into the nature of the singularity effect. As noted, recent research has found that single victims elicit higher donations than many victims under some circumstances (Dickert 2008; Kogut and Ritov 2005a, 2005b). One possible driver of this singularity effect is the entitativity of the single victim, but this possibility is difficult to examine because the entitativity of one versus many victims is inherently confounded with the quantity of victims, a separate variable with potentially similar consequences (Slovic 2007). Other recent research suggests different drivers of the singularity effect, such as that single victims may seem more tangible, and easier to save (Cryder and Loewenstein 2010, 2011). I speculate that both drivers may be present. If single victims elicit higher donations than multiple victims because their entitativity provokes stronger judgments, as I argue is happening with entitative groups, then the single negatively-valenced child should receive lower donations than the non-entitative group—a reversal of the singularity effect. On the other hand, if the singularity effect was driven entirely by differences in perceptions of efficacy, I would expect it to occur regardless of the valence of the victims. The results of study 2.4 show no difference in donations between the single child prisoner and the non-entitative group, which suggests that the singularity effect (among positively-valenced victims) may be driven by both the fact that entitativity increases judgment extremity and by other factors that predict main
effects of singularity on donations. When victims are negative, these two factors oppose each other and may thus cancel each other out. This speculation is however based on a null effect and future is required to fully ascertain the drivers of the singularity effect.

GENERAL DISCUSSION

Four experiments show that the entitativity of a group of victims affects the amount of donations they receive. When positively-valenced victims are perceived to be entitative, whether because of perceptual cues such as common movement, conceptual cues such as referring to them as a family, or individual dispositions to perceive entitativity, they receive higher monetary donations than less entitative but otherwise identical victims. I use actual monetary donations as the dependent variable in most studies, and as shown in table 2.1, the high-entitativity groups of positively-valenced victims receive roughly twice the donations as the low-entitativity groups across the studies.

The effect of entitativity is reliable in each individual study concerning positively-valenced victims and a combined analysis following the adding-z’s procedure (Rosenthal 1978) results in an overall effect of \( z = 4.24, p < .00001 \). Donations can also be conceived as a two-stage decision, where potential donors first decide whether or not to give and then how much to give (Dickert et al. 2011). I find significant differences in line with my hypothesis in both stages. Across all four experiments, the binomial decision of whether or not to donate was associated with an overall effect of \( z = 2.77, p = .003 \). The decision
of how much to donate for donors was associated with an overall effect of \( z = 3.51, p < .0001 \).

Process measures and mediation analyses suggest that this effect occurs because highly-entitative groups evoke more extreme and confident judgments and greater emotional concern. Measures also help to rule out alternative accounts related to donation effectiveness and processing style. Study 2.4 further supports this process and helps to rule out alternative accounts by showing that the effects of entitativity reverse when victims share negative features.

I add to a growing body of literature that details methods through which charitable giving can be increased through subtle manipulations to the donation appeal. For example, donations are higher when victims are pictured with sad facial expressions (Small and Verrochi 2009) or when donors’ friends have suffered from similar misfortunes as the victim (Small and Simonsohn 2008). Most relevant to this work are findings showing that donations increase when victims are identified (Small and Loewenstei 2003), when perceived effectiveness is high (Sharma and Morwitz 2010), and when a larger proportion of the reference group can be saved (Bartels and Burnett 2011). Although possibly related to some of these variables, my studies show that entitativity has a distinct effect on donation through judgment extremity which triggers greater feelings of concern.

Like some of these related effects, I believe that the stronger response to entitative victims is a bias (though one with potentially desirable consequences), and drawing attention to it may diminish its effect. For instance, Small et al. (2007) showed that the identified victim effect disappears when participants are told of the tendency to donate
more money to identified than non-identified victims. Similarly, Kogut and Ritov (2005b) showed that the tendency for people to donate more money to one identified victim than many identified victims disappears when participants evaluated the two targets jointly. In line with this research, I found in follow-up studies that the tendency for participants to donate more to groups higher in entitativity is muted when the low- and high-entitativity targets are judged jointly. In these follow-up studies, participants indicated to what extent they preferred to donate money to a family of six children versus six unrelated children, or a family of six child-prisoners versus six child-prisoners. I observed no significant differences in donations in any of these studies. These results help to further rule out alternative hypotheses related to effectiveness of donations since, if a family for instance, is favored because of the effectiveness of donations toward it, this should occur also in joint presentation.

Implications

My findings join an emerging body of work examining the downstream effects of entitativity in consumer behavior (Mishra 2009; Mishra, Mishra, and Nayakankuppam 2006; Raghubir and Srivastava 2009). By showing that entitativity affects judgment extremity and confidence, I demonstrate a novel process through which emotional and charitable responses can be increased. I also extend the literature on entitativity by demonstrating its behavioral consequences.

These results also shed light on some well-established phenomena in the charitable giving literature. For one example, scope insensitivity in charitable giving (e.g., Desvousges et al. 1993) may be driven in part by entitativity: if entitativity
decreases as the quantity of victims increases (Hamilton and Sherman 1996), then this loss of entitativity and the psychic numbing that accompanies it (Slovic 2007) may counteract the subjective gains of saving additional victims. It follows that valence of the target and individual differences in the perception of entitativity (Implicit Person Theory) may be moderators of scope insensitivity. My findings may also help explain seemingly discrepant past findings: Kogut and Ritov (2005a) did not find a difference in donations to a group of identified versus unidentified children while Small et al. (2007) did. One difference between the studies was that the latter study happened to present the children as a “family.” My studies reveal the importance of such instances of unitization on donations.

The findings reported here have important practical implications. For those attempting to raise charitable donations for positively-viewed victims, the message is clear: Enhancing the perceived entitativity of a group of victims increases donations. Groups of victims can be made entitative by referring to them as a coherent social group, showing them behaving in a unified manner, and in several other ways which I discuss below. However, people who design such appeals should take into account the possibility that some donation targets may share negative characteristics, and entitativity will have an opposite effect in such cases. Appeals to help victims with negative characteristics may not be uncommon: Victims are rarely composed of only positive traits, and even victims who are viewed as positive by some people may be viewed as negative by others. Similarly, a person’s attention will sometimes be drawn to the positive aspects and other times to the negative aspects of the donation target. Depending on these factors, entitativity may trigger very different effects. Small, Pope, and Norton (2011) found that
homogeneous groups of older African American children elicited lower donations than heterogeneous, mixed-race groups of similar-aged children, whereas the opposite pattern emerges for younger children. My findings provide theoretical support for this observation: If negative racial stereotypes are common toward older African Americans (as the authors suggest), group similarity will magnify negative reactions to the donation target.

Future Research

The contributions of the present studies to the literature are accompanied by a number of promising directions for future research. First, many targets in consumer behavior allow for variation in the extent to which they seem entitative, and exploring these myriad targets provides a fruitful opportunity for inquiry. Companies, brands, product lines, groups of employees, political parties, and mutual funds are just a few examples of targets that can be seen as a single entity or as a loose collection of parts, which will have important consequences for how they are processed and judged. For example, I have shown that entitativity increases the extremity of judgments, which implies that targets such as these would be well advised to try to appear highly-entitative to their supporters and low in entitativity to their detractors.

There are a variety of determinants of whether organizations are perceived as entitative, and this too provides opportunity for future research. In this chapter I have employed two manipulations of entitativity—perceptual (e.g., showing butterflies moving together) and conceptual (e.g., describing a group of children as a family)—and both of these approaches suggest additional practical manipulation options. For a conceptual
example, many companies refer to their product line as a family of products, equating it to a highly entitative intimacy group. Companies can also unify themselves perceptually by dressing their service employees in uniforms (see Chapter 3 of this document), or using the common local advertising tactic of ending a commercial with a shot of all the employees collectively waving or saying the company slogan in unison. The perceived entitativity of an organization may also be affected by changing perceptions about the relatedness of its divisions or the diversity of its employees. Even seemingly indivisible entities such as products and people can vary in entitativity by focusing on how they change over time (Bartels and Urminsky 2011).

An interesting implication of this work is that the effects of entitativity illustrated in these experiments are likely to hold for not only group targets, but also for individuals (I thank an anonymous reviewer for this suggestion). Recent research suggests that it is possible to de-unify a single target and this has effects similar to judging low-entitativity groups. For example, individuals seem less entitative when they are unpredictable and inconsistent, resulting in lower recall, recency effects, and other indicators of the type of processing generally associated with judging low-entitativity groups (Hamilton and Sherman 1996; McConnell et al. 1997). Although de-unification may not serve this chapter’s pragmatic goal of increasing donations to charitable causes, it does have important implications for other domains. In the inter-temporal decisions domain, for example, recent research has shown that the extent to which one feels inter-temporally entitative and connected to one’s future self affects the extent to which one prefers immediate versus delayed rewards (Bartels and Rips 2010; Bartels and Urminsky 2011; Ersner-Hershfield et al. 2009). The knowledge that both groups and single individuals
can vary in entitativity suggests further extensions and the research potential of this domain.

Conclusion

Recent work has described the muted charitable response to large numbers of victims as pervasive and nearly impossible to repair. Slovic (2007, 91) writes, “Are we destined to stand numbly and do nothing as genocide rages on for another century? Can we overcome the psychological obstacles to action?” This chapter suggests simple interventions with potentially powerful consequences for this issue.
CHAPTER 3
UNIFORMITY: THE EFFECTS OF EMPLOYEE UNIFORMS ON JUDGMENTS AND ATTRIBUTIONS

Imagine you are picking up a pizza at Domino’s. When you get to the front of the line, the employee serving you rings up the incorrect price, argues with you, and is generally rude and incompetent. What conclusions do you draw from this experience? If trying to predict that specific employee’s future behavior, this is a relatively straightforward attribution task (Ross 1977). Was the poor service because of the circumstances or because of the employee? However, when trying to predict future interactions with the company, consumers face additional considerations. To what extent was the service encounter representative of the typical experience with employees of this company? Further, does the service experience reflect the people who just so happen to be employed by a company—or do they say something more fundamental about the company’s attitude towards its customers? Consumers may draw on contextual cues when trying to make these inferences (e.g. Bitner 1990). In particular, I examine whether uniforms influence the inferences consumers draw following a service encounter.

Uniforms are often lauded for providing the appearance of professionalism and consistency across service encounters (Solomon 1985). Consistency is especially valued in service contexts because it ensures consumers know what to expect across both time
and location (Folkes and Patrick 2003; Johnson and Nilsson 2003). It produces a better match between consumer expectations and experiences, which is a primary determinant of perceived service quality (Parasuraman, Zeithaml, and Berry 1985). As an additional benefit, uniforms are often thought to couple the experience of a service encounter with the identity of the brand as a whole (Forsyth 2004; Nelson and Bowen 2000). This has led to some research investigating how uniforms influence overall evaluations of service encounters that generally finds benefits of employee uniforms on impressions of employees and brands (e.g. Barr 2007; Rafaeli and Pratt 1993; Tu et al. 2011).

Uniforms may also influence how people use observations from a service encounter to form impressions of other employees or the brand as a whole. To the extent that uniforms imply consistency, consumers may more readily draw upon individual experiences with employees when predicting future interactions with other employees or evaluating the company overall. After all, if service is consistent, then experiences with different employees should be relatively similar. There are numerous reasons to expect this as yet untested possibility. First, uniforms highlight the employee’s status as a member of the company, leading employees to be seen as more representative of the company. Similarly, uniforms may make employees seem like more typical group-members, which makes information about them seem more diagnostic for the group (Barsalou 1985; Roehm and Tybout 2006). Second, highlighting group membership also minimizes attention to individual group-members and their unique attributes (Crawford, Sherman, and Hamilton 2002; Fiske and Neuberg 1990), perhaps leading people to neglect the individuating characteristics of employees. Consequently, as individuating characteristics decrease, assimilation across individual targets and attributions based on
the stereotype of the category increase (Cooke et al. 2002). Third, uniforms demonstrate a specific company ethos and brand personality. Companies that require uniforms may be perceived as valuing consistency and expressing this value throughout their hiring and training of employees (Rafaeli and Pratt 1993). These related processes all imply that uniforms cause employees to be seen as more of an exemplar that represents their company and other employees within it.

Across three studies that encompass four experiments, I show that service encounters have more influence on perceptions of both the company as a whole and other employees within it when the employees wear uniforms. Poor service from a uniformed employee is more likely to be blamed on the company and leads to lower judgments of both other employees and the company overall than identical poor service from a non-uniformed employee. Finally, uniforms also highlight differences between brands, leading poor service by a uniformed employee to make competing brands seem more positive. Implications are discussed.

THEORETICAL BACKGROUND

A primary goal behind marketing efforts is building the brand (Aaker 1991; Aaker 2011; Keller 2003). However, service encounters are inherently intangible, making it difficult to capture the many benefits of branding such as brand differentiation and brand loyalty (Berry 2000; McDonald and De Chernatony 2001). Within this context, service organizations face the decision of whether or not to dress their employees in uniforms, and it is clear that many managers believe that uniforms provide a net benefit to their
company. This belief is supported almost unanimously by the few research articles on the topic (Solomon 1985; Pratt and Rafaeli 1997; Rafaeli and Pratt 1993). Uniforms are recommended to address this challenge precisely because they increase the salience of the brand and consistency of a service experience (McDonald and De Chernatony 2001; Solomon 1985) and can communicate essential features of brand identity (Harquail 2004) or enforce the corporate visual identity system (Melewar and Saunders 2000).

Uniforms also increase the visual similarity between employees, and similarity makes individuals appear to belong to a unified, coherent, or “entitative” group (Campbell 1958; Hamilton, Sherman, and Lickel 1998; Lickel et al. 2000). Entitative groups are processed and judged differently than non-entitative groups. They are perceived as having a meaningful core essence (Plaks et al. 2004; Yzerbyt, Corneille, and Estrada 2001) that is reflected in the behavior of individual group members (Crawford, Sherman, and Hamilton 2002; Yzerbyt, Rogier, and Fiske 1998). Further, people engage in more elaborative processing when trying to make sense of the actions of entitative group members (McConnell, Sherman, and Hamilton 1997) and will ignore, explain away, or assimilate contradictory behavior of individual members that is incompatible with beliefs about the group at large (Vonk and van Knippenberg 1995). This results in stronger and more confidently held judgments of entitative versus non-entitative groups (see chapter 2 of this document, as well as Dasgupta, Banaji, and Abelson 1999; Raghubir and Srivastava 2009; Smith, Faro, and Burson 2013; Thakkar 2006).

Because uniforms make employees seem like members of an entitative group, attention to their individuating characteristics may be diminished (Crawford, Sherman, and Hamilton 2002; Fiske and Neuberg 1990). For example, people’s reliance on
stereotypes and other group level knowledge increases for high entitativity groups (Dasgupta, Banaji, and Abelson 1999; McConnell, Sherman, and Hamilton 1997) and goes hand in hand with reduced efforts to understand group members’ thoughts and feelings through mental simulation (Ames 2004). This flack of perspective taking may contribute to the observation that identical uniforms are associated with perceptions of a lack of empathy and warmth (Skorupski and Rea 2006), reduced satisfaction with nurses among pediatric patients (Festini et al 2008; but see also Thomas et al. 2010), and increased aggression against orderlies among psychiatric patients (Rinn 1976). It is also reflected in laboratory studies about the attribution of “essentially human” (Haslam 2006) traits, that is, traits that involve the target’s mental states (e.g., beliefs and desires). Employees wearing uniforms are perceived as possessing fewer such “essentially human” traits than employees who are not wearing uniforms (Morewedge, Chandler, Smith, Schooler, and Schwarz 2012).

More general theories of categorization also lead to the prediction that uniforms increase the evaluative implications of one employee’s behavior for the perceptions of her coworkers and the company overall. According to the inclusion exclusion model (Bless and Schwarz 2010; Schwarz and Bless 1992), contextual cues can affect judgment either by being incorporated into the representation of a target (an assimilation effect) or by being used as a standard of comparison (a contrast effect). In general, information about an individual exemplar (e.g. “he was rude”) influences perceptions of the category as a whole (“they are rude”). Similarly, general knowledge of the category is used to make inferences about individual members (Hogg 1992; Smith 1995), leading people who dislike a company to also dislike individual employees. The size of these
assimilation effects increases as the exemplar’s perceived representativeness of the category increases (Bless and Schwarz 2010; Keller and Aaker 1992; Loken and John 1993).

Specific exemplars also influence perceptions of conspecifics, but the direction of the effect is sensitive to numerous contextual cues that determine whether information about the exemplar should be included into the evaluation of the conspecific (“they are all rude”) or serve as a standard of comparison against which it is evaluated (“he is not as rude as the last guy”). Of particular relevance to uniforms, trivial features that signal similarity (e.g. semantically related product names) are sufficient to produce assimilation effects, whereas features that imply dissimilarity (e.g. semantically distinct product names) lead to contrast (Wanke, Bless, and Schwarz 1999). This is particularly true when the individual targets lack individuating information because in this case perceivers can only rely on information about the category as a whole (Sherman 1996; Brown, Novick, Lord, and Richards 1992; Seta, Martin, and Capehart 1979).

Together, these differing perspectives agree that cues that increase the salience of group membership and the perceived similarity among group members are likely to increase the likelihood that information about an exemplar will influence perceptions of both the group as a whole and other group members. I focus on how homogenous employee uniforms affect attribution, judgments of other employees, and judgments of the company.

STUDY 3.1: IT’S THE COMPANY’S FAULT:
ATtributionS AFTER SERVICE FAILURE
The experiments in study 3.1 test the effect of employee uniforms on attribution of responsibility for a service encounter. They employ identical service episodes and employees, and merely vary whether or not the employees wear uniforms. Each of the reported experiments tests the hypothesis that the company is attributed more responsibility for the outcome of a service encounter when the employees wear uniforms than when they do not.

STUDY 3.1A

Method

Seventy-four participants from a large midwest university business school completed this study in exchange for course credit. Participants were told to imagine themselves experiencing a negative service encounter with a business school staff member (see appendix B for materials). Specifically, they were told to imagine being removed from a study room because they did not have it officially reserved, despite the fact that the room would otherwise be empty. Following the scenario, they were shown pictures of three staff members, with the staff member who asked them to leave circled. Participants were randomly assigned to view pictures of the staff-members either all pictured wearing identical “Staff” polo shirts or wearing casual shirts. Besides the different attire in the pictures, the two conditions were identical.

I measured attribution for the service-experience by instructing participants to allocate 100 points across four causes of “the experience with the staff-member”, with
higher points indicating more responsibility (McArthur 1972). The possible causes were the staff-member himself, the study group, the business school, and other circumstances. Participants also evaluated the employee on sixteen positive and sixteen negative traits (adapted from Haslam, Bain, Douge, Lee, and Bastian 2005). Negative traits were reverse coded and collapsed with positive traits into a single evaluative measure, with larger numbers indicating more positive trait ascriptions ($\alpha = .84$).

Results and Discussion

Participants did not significantly differ in how they rated the uniformed ($M = 3.61, SD = 0.47$) and non-uniformed employees on the thirty-two traits ($M = 3.42, SD = .67, F(1,53) = 1.32, p = .26$ (note that due to a technical malfunction only 55 participants completed this scale).

As expected, participants attributed more responsibility to the business school when the poor service came from a uniformed employee ($M = 34.41, SD = 22.76$) than when it came from a non-uniformed employee ($M = 21.88, SD = 18.83, t(72) = 2.59, p = .01$). They also attributed less responsibility to the employee himself when he wore a uniform ($M = 25.15, SD = 18.11$) than when he did not ($M = 36.5, SD = 20.7, t(72) = 2.49, p = .02$). The employee’s attire did not affect the other attributions ($t$’s $< 1$). Thus I find support for the hypothesis that consumers attribute more causality to the company for a service experience when the employees wear uniforms than when they do not.
This study provides a conceptual replication of study 3.1a and explores whether uniforms also affect attributions for the outcome of positive service encounters. In addition, I address an ambiguity of study 3.1a: Is the influence of uniforms due to the visual impression of entitativity when participants receive pictures of uniformed employees or to inferences from the knowledge that this is the kind of company that requires employees to wear uniforms (Meyer and Rowan 1983; Rafaeli and Pratt 1993)? To shed light on this distinction, all participants learn that employees of the company generally wear uniforms (thus holding company knowledge constant) but see portrait shots of the employees with or without uniform (thus manipulating visual similarity).

Method

Two-hundred and nineteen North American adult participants from Amazon Mechanical Turk completed this study in exchange for monetary payment. Participants were asked to imagine picking up a pizza at Domino’s Pizza. Participants were randomly assigned to read about either a negative encounter (featuring a delayed pizza, an error with the price, and an unapologetic employee) or a positive encounter (featuring on-time pizza, an unexpected discount, and an extremely helpful employee). They saw a picture of three employees that were either wearing uniforms or non-uniform collared shirts, with the employee from the scenario circled. In the non-uniform condition, there was a Domino’s logo next to the pictures to control for exposure to the corporate logo. In this condition, participants were also explicitly told that the employees are pictured without their usual uniforms, reminding them that the company does require employees to wear uniforms.
Participants evaluated the employee on four items (competent, warm, effective, kind; $\alpha = .98$) that were collapsed into a single measure of positivity. As in study 3.1a, participants indicated their attribution for the cause of their experience with the circled employee by allocating 100 points across four causes: the employee, “me”, Domino’s, and the circumstances.

Results and Discussion

A 2 (Valence) X 2 (Uniform) ANOVA revealed that participants rated the positive service encounter as more favorable ($M = 4.24, SD = 1.03$) than the negative service encounter ($M = -2.77, SD = 1.95$). There was no significant main effect of uniform and no significant interaction between uniform and valence, both $F$’s < 1.

A general linear model with attribution toward Domino’s as the dependent variable revealed a significant main effect of attire ($F(1, 214) = 4.61, p = .03$), a non-significant main effect of valence ($F(1, 214) < 1$), and a significant interaction ($F(1, 214) = 3.87, p = .05$). This interaction was diagnosed with simple contrasts within valences.

After negative service, attribution to Domino’s was higher when employees wore uniforms ($M = 23.96, SD = 19.34$) than when they did not ($M = 14.56, SD = 14.95; F(1, 214) = 8.46, p = .004$). This effect was nonsignificant for positive service ($M_{\text{uniform}} = 18.36, SD = 14.89; M_{\text{non-uniform}} = 17.95, SD = 17.8; F(1, 214) < 1$).

I also observed a main effect of attire on attribution to the circumstances, ($F(1, 214) = 8.69, p = .004$). When employees wore uniforms, there was less attribution to the circumstances ($M = 20.08, SD = 15.72$) than when employees did not wear uniforms ($M = 27.48, SD = 23.07$). Although there was not a significant interaction, in an exploratory
analysis I replicated the simple contrasts within valences for this variable and found again that the effect was significant after negative service ($M_{\text{uniform}} = 23.6$, $SD = 17.51$; $M_{\text{non-uniform}} = 34.78$, $SD = 21.71$; $F(1, 214) = 9.41$, $p = .002$), but not after positive service ($M_{\text{uniform}} = 16.43$, $SD = 12.78$; $M_{\text{non-uniform}} = 20.45$, $SD = 22.32$; $F(1, 214) = 1.2$, $p = .27$).

Attire did not affect attributions to either the employee or “me” within either valence, all $F$’s < 1.

Across the two experiments of study 3.1, I find that uniforms influence consumers’ attributions for the outcome of a service encounter. As predicted, the company is seen to play a larger role in determining the outcome of the service encounter when employees are uniformed than when they are not (studies 3.1a and 3.1b). This supports the proposition that uniformed employees are perceived as group-members who represent the company, whereas non-uniformed employees appear more as individual entities. Importantly, this effect is driven by the visual appearance of employees, not by perceivers’ knowledge about whether the company generally requires employees to wear uniforms (study 3.1b). While this observation does not imply that knowledge about a company’s uniform policy will never affect consumers’ judgment, it highlights that the visual salience of a uniformed appearance is a more powerful driver of causal attributions, as has been observed for other salience manipulations (Taylor and Fiske 1978).

Study 3.1b also suggests that the influence of uniforms on attribution may be stronger for negative than for positive service encounters. Although the interaction did not reach significance, the influence of uniforms was reliable for negative but not for positive service encounters. This potentially occurs because negative information draws
more attention (Fiske 1980) and triggers spontaneous attributional reasoning (Weiner 1985). Most service encounters are expected to be positive (Mittal and Lassar 1998; Peterson and Wilson 1992) which makes negative information especially diagnostic (Skowronski and Carlston 1987). Another potential explanation is that negative information acts as a problem signal in the environment, much like a negative affective state (Schwarz 1990; Taylor 1991). This increases spontaneous causal reasoning (e.g., Bohner et al. 1988), attention to detail (e.g., Sinclair 1988) and systematic, elaborative processing (e.g., Bodenhausen, Kramer, and Susser 1994; Schwarz, Bless, and Bohner 1991). Such effects have been observed across a wide range of tasks (for a review, see Schwarz 2002), suggesting that negative experiences are more likely to be the topic of extensive thought. If so, avoiding the obvious yet possibly erroneous attribution may be more likely when the experience is negative rather than positive. However, it should also be noted that other research has found positivity effects in similar settings (Folkes and Patrick 2003) and efforts were not made to standardize the extremity of the negative and positive service encounters, so this asymmetry should be interpreted with caution.

**STUDY 3.2: THEY’RE ALL THE SAME:**

**ASSIMILATION ACROSS SERVICE ENCOUNTERS**

Study 3.1 showed that uniforms elicit higher company attributions: service from uniformed employees is more strongly attributed to the company than identical service from non-uniformed employees. Consequently, we may further expect that consumers who had a good (bad) service experience are more likely to expect that future service
encounters will also be good (bad) when the employees are uniformed than when they are not. Moreover, uniformed employees are likely to be perceived as representatives of the company whose uniform they wear. This attenuates the perception of differences between employees of the same company, further increasing the expectation that service experiences will be similar across different service encounters. I test this prediction by assessing the impact of an initial negative versus positive service encounter on consumers’ perception of a subsequent, ambiguous service encounter with a different employee of the same company. I predict (i) that the ambiguous encounter with the second employee will be evaluated more positively when the preceding encounter with the initial employee was positive rather than negative, and (ii) that this assimilation effect will be more pronounced when the employees wear uniforms.

Method

One hundred and thirty-four participants from a large Midwest university were randomly assigned to imagine a negative or positive service encounter. The negative service encounter was identical to the scenario from study 3.1a. The positive service encounter used the same story set-up, except that a helpful staff-member volunteers to move some reservations around so the group can stay in the study-room, which creates some extra work for the staff member and delays his dinner break. As before, participants were shown pictures of staff members either wearing uniforms or not, with the staff member from the scenario circled. Participants then read a second scenario with ambiguous service quality, where a staff-member successfully fixes a classroom-computer problem after some difficulty. Participants were shown the same pictures of the
staff members that they viewed following the first scenario, but with a different staff-
member circled. Thus, as with most companies, if employees wore uniforms in the first
scenario, they also wore uniforms in the second scenario.

Following each scenario, participants rated the extent to which they believed the
staff-member in the interaction was competent, warm, effective, and kind on 11 point
scales (-5 = definitely no, +5 = definitely yes). Morality and competence judgments were
equally affected by the manipulation across conditions, so were collapsed together into a
single favorability index (α’s = .88 and .75 for the first and second scenario,
respectively).

Results and Discussion

Manipulation check. Participants rated the employee in the negative scenario less
favorably (M = -0.56, SD = 1.67) than the employee in the positive scenario (M = 3.82, SD
= 1.2; F(1, 130) = 300.9, p < .001), indicating that the manipulation worked as intended.
Judgments of this employee did not depend on whether he wore a uniform (M = 1.78, SD
= 2.63) or not (M = 1.34, SD = 2.64; F(1, 130) = 2.28, p = .13) and there was no
significant interaction between attire and encounter valence, F < 1.

Evaluations of second employee. Turning to the central research question, in the
non-uniform condition, judgments of the second ambiguous employee were unaffected
by whether the experience with the first employee was positive (M = 2.24, SD = .99) or
negative (M = 2.31, SD = 1.13; F(1, 130) < 1 for the simple effect. In contrast, when
employees wore uniforms, participants rated the employee in the ambiguous second
interaction more positively when their preceding service interaction with his colleague
was positive \( (M = 3.22, \text{SD} = 1.29) \) rather than negative \( (M = 2.45, \text{SD} = 1.24; F(1, 130) = 7.31, p < .01 \) for the simple effect). These findings are reflected in a significant interaction between the valence of the prior experience and employee attire, \( F(1, 130) = 4.37, p = .04 \).

Discussion. In sum, participants perceived the ambiguous service provided by a uniformed employee more positively when his colleague had previously provided a positive rather than negative service experience. Such an assimilation effect was not observed when the employees did not wear uniforms. These findings highlight the costs and benefits of uniforms: if a company can successfully enforce positive service, uniforms facilitate the perception of positive service in the many occasions where service is of ambiguous quality; but once a customer has a negative service experience, uniforms facilitate the perception of further negative service even when the new encounter itself is not particularly negative. Study 3.3 replicates this finding and further shows that uniforms increase differentiation between companies: a given company’s service failure makes the company look worse and the competitor look better, especially when the employees wore uniforms.

STUDY 3.3: THE COMPETITION IS BETTER:

CONTRAST ACROSS COMPANIES

The results of study 3.1 suggest that uniforms make employees seem more representative of their company. Study 3.2 shows that uniforms also make employees seem more representative of other employees within that group, causing judgments of
one employee to more dramatically impact judgments of subsequent employees. It follows from these two findings that uniforms may also increase the extent to which an experience with one employee affects judgments of the company. Much like when constructing an impression of other employees, perceivers may draw heavily from their impression of the initial salient group-member when forming an impression about the group, i.e. the company, as a whole. Thus, service with a uniformed employee may have stronger effects on judgments of the company than identical service with a non-uniformed employee.

In addition to investigating whether uniforms influence the extremity of global judgments of the company, I also investigate whether uniforms also increase the across-brand differentiation (Matta and Folkes 2005), i.e. the likelihood of contrast between a firm and its competitors. Just as identical uniforms are a cue that signals inclusion within the same group, different uniforms are a cue that signals contrast between groups and individuals. Consequently, service with a uniformed employee may be more likely to serve as information against which a competitor is evaluated. Study 3.3 tests both of these predictions and also replicates the assimilation results observed in study 3.2.

Method

Two-hundred and six North American adults recruited from Amazon Mechanical Turk (Paolacci, Chandler, and Ipeirotis 2010) completed this experiment in exchange for cash payment. As in study 3.1b, participants imagined themselves in a scenario where they are picking up pizza at a Domino’s and received either good or poor service. Participants saw pictures of three employees that were on duty that day, with the
employee from their service-encounter circled. The employees were either pictured wearing Domino’s uniforms or non-uniform collared shirts. In the non-uniform condition, there was a Domino’s logo next to the pictures to control for exposure to the corporate logo. Participants rated the focal employee on an 11-point scale (-5 = very bad, +5 = very good).

Participants then imagined themselves picking up a pizza as part of a second ambiguous service encounter. This second scenario either took place at the same Domino’s Pizza branch or at a pizza place named Marco’s Pizza. Participants again saw pictures of three employees that were working that day, with the focal employee from the scenario circled. In the Domino’s condition, the employees, their attire, and their photos were identical to those in the first scenario except a different employee was circled. In the Marco’s Pizza condition, the three employees were wearing shirts with Marco’s Pizza logos on them (see appendix B for materials). Participants then rated the employee and the company from the second scenario on 11-point scales (-5 = very bad, +5 = very good). Thus, participants were randomly assigned to a 2 (valence of first interaction; positive or negative) X 2 (attire of Domino’s employees; uniform or not) X 2 (location of second interaction; same company or competitor).

Finally, all participants again viewed the three Domino’s employees and rated their entitativity (Bartels and Burnett 2011) by indicating the extent to which they see the collection of employees as individuals versus a group (-3 = individual people with distinct identities, +3 = a tight group with a single identity).

Results and Discussion
**Manipulation check.** The first scenario was at Domino’s and presented in a 2 (attire: uniform or non-uniform) X 2 (valence; positive or negative) design. As intended, the negative experience produced more negative judgments of the employee ($M = -2.73$, $SD = 2.16$) than the positive experience ($M = 4.07$, $SD = 1.52$; $F(1, 202) = 704.84$, $p < .001$). Unlike studies 2.1 and 2.2, ratings of this employee also depended on whether he wore a uniform ($M = .96$, $SD = 3.95$) or did not ($M = .49$, $SD = 3.81$; $F(1, 202) = 5.52$, $p = .02$. There was no significant interaction between attire and valence, $F(1, 202) = 1.66$, $p = .2$.

**Entitativity.** The uniformed Domino’s employees are seen as more of an entitative group ($M = .61$, $SD = 1.22$) than the non-uniformed employees ($M = -.27$, $SD = 1.59$, $F(1, 199) = 19.26$, $p < .001$).

**Employee ratings.** Replicating study 3.2, when employees did not wear uniforms, evaluations of the second, ambiguous Domino’s employee did not depend on whether the first service encounter was positive ($M = 6.85$, $SD = 1.87$) or negative ($M = 6.33$, $SD = 2.18$), $F(1, 198) < 1$ for the simple simple effect. However, when Domino’s employees wore uniforms, the second employee was judged more favorably when the first employee’s service was good ($M = 7.85$, $SD = 1.61$) than when it was poor ($M = 5.96$, $SD = 1.66$), $F(1, 198) = 12.75$, $p < .001$ for the simple simple effect. This pattern produced a marginally significant simple interaction between valence of the first service experience and attire for Domino’s employees, $F(1, 198) = 3.28$, $p = .07$ that qualified a simple main effect of valence of the first experience, $F(1, 198) = 10.00$, $p < .001$. 59
Neither the attire nor the valence of the experience with the Domino’s employee had an effect on evaluations of the Marco’s employee following the ambiguous service interaction at that rival company, $F < 1.1$ for the simple interaction.

Together these findings produced a significant three-way interaction between attire, valence of the service encounter, and the company that provided the second service encounter, $F(1, 198) = 4.09, p < .05$. There was also a significant two-way interaction between the valence of the first service encounter and the company that provided the second service encounter, $F(1, 198) = 7.63, p < .01$. There were no other main effects or interactions.

*Company ratings.* As seen in figure 3.1, uniformed employees produced more extreme company ratings. When employees did not wear uniforms, evaluations of Domino’s overall were influenced by whether the initial service encounter was positive ($M = 7.54, SD = 2.02$) or negative ($M = 5.33, SD = 1.97$; $F(1, 198) = 16.52, p < .001$) for the simple simple effect. Importantly, this difference was exacerbated when employees wore uniforms ($M_{positive} = 9.19, SD = 1.36$, $M_{negative} = 4.42, SD = 2.45$; $F(1, 198) = 81.80, p < .001$) for the simple simple effect. This pattern produced a significant simple interaction between valence of the first service experience and attire, $F(1, 198) = 11.44, p < .001$ that qualified a simple main effect of valence of the first service experience, $F(1, 198) = 84.75, p < .001$.

Insert figure 3.1 about here
Conceptualizing this effect as uniforms causing more extremely positive or negative judgments of Domino’s allows me to explore mediation. As discussed earlier, uniforms both increase entitativity and judgment extremity, and previous research indicates that entitativity may mediate the effect on judgment extremity (see chapter 2 of this document, as well as Smith, Faro, and Burson 2013; Thakkar 2006). I performed a bootstrapping analysis of the indirect effect of employee attire on the absolute value of judgments of Domino’s through entitativity and found that the 95% confidence interval did not contain zero (95% BCA CI = -.39 to -.01), indicating significant mediation (Preacher and Hayes 2008). Uniforms lead to more extreme company judgments at least in part because they make the employees seem like more of an entitative group.

Evaluations of Marco’s also depended on the presence of uniforms in the first service encounter with the Domino’s employee. When Domino’s employees did not wear uniforms, the valence of the service encounter at Domino’s did not influence perceptions of Marco’s, $F < 1$ for the simple simple effect. However, when Domino’s employees wore uniforms, participants contrasted their experience at Marco’s with their initial experience at Domino’s, leading Marco’s to be judged less favorably when the first service encounter was positive ($M = 6.65, SD = 2.24$) than when it was negative ($M = 8.41, SD = 1.34$), $F(1, 198) = 11.09, p < .001$ for the simple simple effect. This pattern produced a significant simple interaction between valence of the first service experience and attire, $F(1, 198) = 5.78, p < .02$ that qualified a simple effect of valence of the first service experience $F(1,198) = 5.78, p < .02$. 

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The effect of uniforms on ratings of Marco’s was also driven by perceptions of entitativity. A bootstrapping analysis of the indirect effect of Domino’s employee attire on judgments of Marco’s through perceptions of Domino’s-employees’ entitativity had a 95% confidence interval that did not contain zero (95% BCA CI = .01 to .59), indicating significant mediation (Preacher and Hayes 2008).

These findings demonstrate that when an employee wears a uniform, the quality of a service encounter has a larger impact on perceptions of other uniformed employees of that company and perceptions of the company overall. Additionally, when an employee wears a uniform, it serves as a target against which other companies are contrasted, leading negative experiences to make competitors seem more positive overall and vice versa. The finding that the performance and attire of employees at one company affect judgments of rival companies overall, but not employees at rival companies further supports the proposition that categorization and the inclusion/exclusion model underlie these phenomena. Employees within a company and companies within an industry form more natural and entitative groups than employees across different companies. Uniforms and other variables which affect categorization should have more pronounced assimilation and contrast effects for targets that can be naturally seen as groups than targets that seem categorically unrelated (Bless and Schwarz 2010).

GENERAL DISCUSSION

Researchers have typically assumed that uniforms lead to more positive evaluations of employees, an assertion that has rarely been directly tested (for exceptions
see Barr 2007; Rafaeli and Pratt 1993; Thomas et al. 2010; Tu et al. 2011). Although I only observed a significant main effect of uniforms on employee ratings in the first service encounter in study 3.3, a meta-analysis of evaluations of the first employee obtained from all five studies (with effect sizes calculated separately within valence) revealed uniforms lead to more positive evaluations of employees, \( d = .17 \) (95% CI [0.02, 0.32]) \( z = 2.18, p = 0.03 \).

My studies extend this research by examining how uniforms influence attributions and the extent to which people draw on their experiences with one service encounter when evaluating the company and other employees at the company. Following a negative service experience with a uniformed employee, participants attributed more responsibility to the company compared to identical negative service from a non-uniformed employee (studies 2.1a, 2.1b), \( d = .37 \) (95% CI [0.13 - 0.60]) \( z = 3.07, p = 0.002 \).

Moreover, when evaluating a subsequent ambiguous service encounter, participants in my studies made more extreme judgments of both the company (study 3.3), and of other employees working for the same company (studies 2.2 and 2.3). The effect of uniforms on evaluative extremity on subsequent employee behavior (studies 2.2 and 2.3) was moderate, \( d = .34 \) (95% CI [0.09 - 0.58]) \( z = 2.71, p < 0.01 \). Effect sizes were heterogeneous across valences, \( Q(4) = 8.88, p = 0.03 \), which I discuss below.

Overall, these findings stand in contrast to the assumption that uniforms highlight, rather than obscure, behavioral differences between employees (Joseph & Alex 1972; Solomon 1985). I argue that these effects occur because uniforms act as an inclusion variable that imposes a superordinate categorization of employees into the company-group. When entities are seen as members of a group, information about individuals is
more likely to be applied to judgments of the overall group and to other group-members (Crawford, Sherman, and Hamilton 2002; Yzerbyt, Rogier, and Fiske 1998).

These findings also add to a growing body of literature that explores the determinants of categorization and its consequences for consumer judgments and behavior. Variables that affect categorization also have well-established effects on brand extensions (Aaker and Keller 1990; Bless and Greifeneder 2008; Broniarcyk and Alba 1994; Keller and Aaker 1992; Loken and John 1993; Oakley, Duhachek, Balachander, and Sriram 2008; Park, Milberg, and Lawson 1991; Wanke, Bless, and Schwarz 1998). Within these studies, variables that increase perceptions that a target belongs to a category increase the likelihood that attributes of the target and the category will be assimilated into judgments of other targets within the same category. For example, negative information about one brand spills over into judgments about the product category and other brands within it when the initial brand seems typical of the category and similar on relevant attributes to other brands (Roehm and Tybout 2006). As noted earlier, the polarizing effect of uniforms on subsequent judgments of ambiguous service has heterogeneous effects. Follow up analysis revealed that uniformed employees who gave ambiguous service were seen as especially positive following a positive service encounter from a co-worker, $d = 0.70$ (95% CI [.35 - 1.05]), $z = 3.88, p < .001$, and that uniforms had a non-significant effect on evaluations of subsequent employees following a negative service encounter from a co-worker, $d = .00$ (95% CI [-.33 - .35]), $z = .04, p = .97$. The difference in effect sizes was significant, $Q(1) = 7.68, p < .01$ and within-valence effect sizes were homogenous ($Q(1) = .68, p = .41$ and $Q(1) = .53, p = .47$
respectively). Together these findings suggest that uniforms had a particularly strong effect on subsequent employee-judgments following the positive vignettes.

Theoretical arguments exist to support this finding (e.g. Bless & Schwarz 2010). However, I must emphasize that valence was manipulated to explore assimilation and contrast effects among uniformed versus non-uniformed employees. Since I did not set out to examine whether the effect was symmetrical across positive and negative experiences, I made no effort to standardize the positive and negative scenarios on extremity, perceived likelihood, or any of the other numerous variables that determine the magnitude of assimilation or contrast (Bless & Schwarz 2010). Thus the difference in magnitude of effect sizes across valence should be interpreted with caution. Additionally, when considering the potential application of this research for decisions involving employee attire, two additional considerations may qualify this finding.

First, in general it is highly likely that positive service encounters are more frequent than negative service encounters, although how much so is difficult to say. My research concerns the impact of a single customer experience on a subsequent customer experience. Any attempt to generalize my findings to the effect of uniforms on company or brand image overall must weight this finding against the proportion of positive and negative service experiences.

Second, it is important to note that the effects of one service encounter on judgments of subsequent employees is independent of the question of whether uniforms produce a main effect of positive impressions on employees in general. Uniforms have a mildly positive effect on impressions overall, but additionally, increase the likelihood that information about one employee will affect impressions of others. To the extent that most
initial service encounters are positive, and more so with uniforms, it is possible that repeated encounters with uniformed employees may lead to a virtuous “upward spiral” of attitudes towards service employees.

Turning finally to study 3.3, I observed that a negative experience with a uniformed employee leads to an elevated opinion of a rival brand, but not the employees of a rival. One reason this may have occurred is because brands may make natural targets of comparison for other brands. However, if people recognize that employees of rival brands may differ in many ways, including rules, expectations and procedures, the conduct of one company’s employee may not as readily be used as a standard of comparison. Alternatively, if evaluations of the subsequent employee are mediated through group level knowledge, the influence of the first service encounter on evaluations of a subsequent employee from a rival brand are mediated through the impression formed of both companies, allowing more opportunity for extraneous information to influence judgments. Additional research could more fruitfully explore these issues.

Experiences with service employees are extremely consequential for company evaluations, earning them the designation “moments of truth” (Carlzon 1987; Rafaeli 1993). I show that this is especially true when employees wear uniforms, which yields several additional managerial implications.

First, since uniforms increase the likelihood that the first employee encountered will set the tone for following service interactions, companies who employ uniforms should attempt to have customers’ first service experience involve the best employees in order to ensure that they set the tone for subsequent interactions.
Second, wearing uniforms increases the evaluative consequences of employees’ behavior, in effect raising the stakes of individual service interactions for brand image, by increasing the likelihood that consumers will draw on this interaction when evaluating the company overall. This suggests that in contexts where service is likely to be poor for extraneous reasons (e.g. the first few days of a new franchise, or in the face of difficult and unexpected work conditions), companies can protect their brand image by relaxing the requirement that employees wear uniforms. To the extent that people notice that inevitable service improvements coincide with the requirement to wear uniforms, people may even attribute service improvements that reflect the natural learning of employees to the company exerting tighter control. This conclusion seems contrary to my observation that employee uniforms are most common in companies whose front-line employees are relatively low in training, wages, and skills, such as those in the fast food industry. Although I can’t say whether this reflects an actual difference in companies that do and do not require uniforms, or whether this intuition captures biases in our memories of service encounters that stem from the initial coding of these events, this intuition underscores the importance of managing service encounters of uniformed employees.

Third, because new employees are often lower in service-quality (Schlessinger and Heskett 1991), companies should consider removing uniforms from new employees or dressing them in different “trainee uniforms,” highlighting the distinction between experienced and inexperienced employees. By a similar logic, negative service encounters may be able to be “reset” by encountering an employee wearing a visually distinct uniform. Future research could fruitfully explore whether trainee uniforms and
other non-homogenous uniforms disrupt the effects observed in this research such as increased attribution to the company.

Fourth, companies such as salons where customers regularly interact with the same service provider face the obstacle of keeping that customer loyal after their regular service provider leaves. This research implies that these companies may have higher customer retention through periods of employee turnover if the employees wear uniforms because other employees and the company are more likely to benefit from their positive rapport.

Given the ubiquity of uniforms it is surprising how little quantitative research has been conducted on the influence of uniforms on service experiences. To date, the benefits and tradeoffs of requiring employees to wear uniforms has typically been considered in light of their aggregate effect on the service experience and have focused on perceptions of the service provider, neglecting how uniforms may influence the perception of the brand and its competitors. This research addresses these gaps by suggesting that above and beyond any general effects uniforms may have on customer perceptions, they also interact with other variables, moderating the evaluative implications of a service encounter for both perceptions of other employees, but also the brand as a whole and its competitors.
CHAPTER 4
CONCLUSION

This dissertation explores the antecedents and consequences of perceived unity in the marketplace. For antecedents, chapter two shows that perceptions of unity can vary based on conceptual differences in target descriptions (e.g. herd of 200 gazelles vs. 200 gazelles), perceptual difference in target presentations (e.g. common movement), and individual differences between perceivers (e.g. incremental vs. entity theorists). Chapter three focuses on employee uniforms, a seemingly innocuous yet widely prevalent cue of group-membership and unitization. For consequences, chapter two illustrates how a unified collection of victims elicits increased emotional responses, judgment extremity, and donations compared to an otherwise identical but non-unified collection of victims. Chapter three shows that cues of membership in a unified group make individuals seem more representative of other group-members and the group as a whole. These finding yield several important implications.

IMPLICATIONS
This research has implications for a variety of research domains and unanswered questions within them. First, it may shed light on the question of how group membership affects attribution. In chapter 3, I find increased blaming of a company for an employee’s behavior when that employee is wearing a uniform, and I argue that cues implying categorization into a unified group lead to more blaming of the group for an individual’s behavior, because the individual seems representative of the overall group. Yzerbyt, Rogier, and Fiske (1998) find that there is more fundamental attribution error, or excessive attribution to dispositions (versus situational constraints) to explain peoples’ behavior, when those people are part of an entitative group. These findings may seem contradictory, with me finding less attribution to the group-member (or at least more to the group) and Yzerbyt et al. (1998) finding more attribution to the group-member. However, I believe that the critical difference lies in the experimental setup, specifically whether participants are allowed to blame the group or not. Membership in an entitative group seems to imply that underlying dispositions explain behavior, and these dispositions can either be those of the group (if relevant and a possible answer on a survey), or those of the individual. The finding of Yzerbyt et al. (1998) is consistent with the finding that entitative groups elicit stronger judgments, which I show in both chapters two and three, and a future research direction I discuss below, which shows stronger judgments of members of tight versus loose groups.

Another question that this research provides insight on is whether the perception that a collection of individuals comprises an entitative group makes that group seem like more of an out-group. Research has shown that entitative groups to which people belong
are more meaningful to them (Hogg 1992; Yzerbyt et al. 2000), that homogenous outgroups seem like more of a threat (Dasgupta, Banaji, and Abelson (1999), and that both entitative groups and outgroups seem more homogenous (Yzerbyt et al. 2000). Thus, it seems that entitativity likely increases the extent to which out-groups seem distinct from the self, and I provide additional support for this possibility in chapter 3 by showing that entitative groups are contrasted against each other. Similarly, the “ultimate attribution error” (Pettigrew 1979), which is the finding that negative (versus positive) behavior from an outgroup is more attributed to underlying dispositions, combined with my finding that the entitativity of an outgroup makes their behavior seem like more part of an underlying disposition from group membership, together imply that increasing the entitativity of an outgroup makes them seem like more of an outgroup (resulting in the perception that their negative behavior is stable). The possibility that entitative groups seem more like outgroups and are therefore more derogated, seem more homogenous, and their negative behaviors seem more stable, is a potential future direction for this research.

Findings presented in this dissertation, such as strong judgments of unified groups and assimilation across their members, can explain or shed light on a variety of published findings. For example, several recent papers have documented a “unit bias”, where people prefer unified objects (e.g. a 10 dollar bill is more preferred than 10 ones, and a single serving seems like the appropriate amount of food to eat; Geier, Rozin, and Doros 2006; Mishra 2009; Mishra, Mishra, and Nayakankuppam 2006; Raghuvir and Srivastava 2009) could be operating under the same principle that makes entitative groups elicit stronger judgments. If so, these findings would reverse for negative stimuli. Similarly,
this research is quite relevant for research in branding—brands can be thought of as
groups or categories (Boush and Loken 1991), and increasing their entitativity would
likely produce all of the effects observed in this research. Additionally, the theoretical
foundation for the second chapter, that a collection of targets can be responded to much as a single target, is also relevant for a variety of research domains, such as social impact
theory (Latané 1981), social-comparison and the n-effect (Garcia and Tor 2009), social
loafing and bystander effects (Garcia et al. 2009; Latané, Williams, and Harkins 1979),
and scope insensitivity (Desvousges 1993). Even more generally, this research provides a
surprisingly rare bridge between categorization and entitativity research, and argues that
increasing the perceived unity or entitativity of any category would produce the effects illustrated here, such as increased extremity of judgments of the group, assimilation
among group-members, and contrasts across groups.

FUTURE DIRECTIONS

This research suggests a variety of future directions for research projects, some of
which are already underway. Relevant to chapter two, I have completed two studies
priming perceptions of unity for victims and examining donations to them. I also have
some nascent research exploring how other factors relevant to unity affect charitable
giving, such as donor unity and threat unity. Relevant to chapter three, I have a paper
under review showing that uniforms and other forms of group membership reduce the
attribution of mind to individuals (Morewedge et al. 2012). I also have a project
extending this research into the branding and products domain, looking at how the unity
of a group affects judgments and actual consumption experiences with the products or individual group members of the group.

I also have many ideas for research projects that I have not yet begun. First, an inquiry into other cues of unity and categorization in the marketplace would be fruitful. For example, the collective movement or cooperative behavior of employees may unify them, while individuating cues such as unusual appearance may disaggregate them, producing or removing the effects described in chapter 3, respectively. Similarly, branding elements such as logos or distinctive appearance (e.g. apple’s whiteness) should produce similar effects across a product line. Even subtle cues of categorization, such as skateboarding shoes or flag-pins on politicians, would likely lead to the consequences of unity and categorization illustrated above.

Finally, I believe it could be fruitful to combine effects observed across these chapters. For example, I find a contrast effect for unified groups in chapter 3, which implies that an especially favorable collection of victims may be more likely to be compared to other victims when it seems unified, potentially lowering contributions to others. Similarly, I also see potential in running a field study for uniforms that could mirror that of chapter two. I hypothesize that reviews for restaurants that mention uniforms are more likely to be polarized. There are still countless unexplored themes related to categorization, unity, charitable giving, and consumer inferences.
### TABLE 2.1

**MEAN DONATIONS (AND SD’S) BY CONDITION IN CHAPTER 2 STUDIES**

<table>
<thead>
<tr>
<th>Study</th>
<th>Donation target</th>
<th>Low-entitativity</th>
<th>High-entitativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 2.1</td>
<td>25 Butterflies</td>
<td>£.45 (£0.69)</td>
<td>£.76 (£.88)</td>
</tr>
<tr>
<td>Study 2.2</td>
<td>6 Children</td>
<td>£1.41 (£2.03)</td>
<td>£2.88 (£3.49)</td>
</tr>
<tr>
<td>Study 2.3</td>
<td>200 Gazelles</td>
<td>$9.29 ($12.36)</td>
<td>$16.13 ($17.34)</td>
</tr>
<tr>
<td>Study 2.4</td>
<td>6 Children, positive</td>
<td>$1.10 ($1.61)</td>
<td>$2.75 ($3.39)</td>
</tr>
<tr>
<td></td>
<td>6 Children, negative</td>
<td>$.84 ($1.36)</td>
<td>$.26 ($0.60)</td>
</tr>
</tbody>
</table>
### TABLE 2.2

**TOBIT COEFFICIENTS FOR AMOUNT OF MONEY DONATED TO TARGET CHARITY BY CONDITION IN STUDY 2.4**

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficient</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.53</td>
<td>-2.27</td>
<td>.024</td>
</tr>
<tr>
<td>Valence</td>
<td>.40</td>
<td>.63</td>
<td>.528</td>
</tr>
<tr>
<td>One vs. Low-Entitativity Group</td>
<td>.97</td>
<td>1.13</td>
<td>.260</td>
</tr>
<tr>
<td>High-Entitativity vs. Low-Entitativity Group</td>
<td>.03</td>
<td>.04</td>
<td>.972</td>
</tr>
<tr>
<td>One vs. Low-Entitativity Group x Valence</td>
<td>1.24</td>
<td>1.45</td>
<td>.149</td>
</tr>
<tr>
<td>High- vs. Low-Entitativity Group x Valence</td>
<td>2.55</td>
<td>2.80</td>
<td>.006</td>
</tr>
<tr>
<td>Positively-Valenced Children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.52</td>
<td>-1.32</td>
<td>.189</td>
</tr>
<tr>
<td>One vs. Low-Entitativity Group</td>
<td>2.34</td>
<td>1.66</td>
<td>.050</td>
</tr>
<tr>
<td>High- vs. Low-Entitativity Group</td>
<td>2.72</td>
<td>1.91</td>
<td>.030</td>
</tr>
<tr>
<td>Negatively-Valenced Children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-.97</td>
<td>-1.54</td>
<td>.127</td>
</tr>
<tr>
<td>One vs. Low-Entitativity Group</td>
<td>-.18</td>
<td>-.22</td>
<td>.824</td>
</tr>
<tr>
<td>High-vs. Low-Entitativity Group</td>
<td>-1.94</td>
<td>-2.10</td>
<td>.038</td>
</tr>
</tbody>
</table>

*Note: t-tests for contrasts within Positively-Valenced Children are single-tailed*
FIGURE 2.1
MEAN POSITIVITY RATINGS OF VICTIMS IN PRETEST FOR STUDY 2.4

 Victim Presentation

- Positively-Valenced Children
- Negatively-Valenced Children

Mean Positivity Ratings
FIGURE 3.1
MEAN RATINGS OF COMPANIES IN STUDY 3.3

Domino's

Marco's

Company rating

First employee service quality
Negative
Positive

Company rating

Domino's employee service quality
Negative
Positive

Uniform
Non-uniform

Uniform
Non-uniform

77
APPENDIX A: CHAPTER 2 STIMULI

SCREEN SHOTS MID-ANIMATION IN STUDY 2.1
LOW-ENTITATIVITY CONDITION
SCREEN SHOTS MID-ANIMATION IN STUDY 2.1
HIGH-ENTITATIVITY CONDITION
HELP THESE CHILDREN TODAY

Any money that you donate today will go to Rokia, Ariane, Lerato, Pendo, Asha, and Sefu, 6 young children from Rwanda, Africa. These children are desperately poor, and face neglect and a threat of severe hunger or even starvation due to the impact of war. This charity provides education and housing for these children. The purpose of this program is to transform them into productive citizens with strong characters.

This charity currently has a beautiful campus with four brick school buildings. Here, these 6 children are taught a solid education including English. However, the school currently serves only grades K – 5. Recently, a plan was developed to open a secondary school in the village of Kayonza to serve grades 6-8. Unfortunately, this school depends on your donations. Unless $300,000 is raised soon, the project will be put on hold, and these children will be forced to go without the much needed care and education it would provide.
STIMULI FOR STUDY 2.3

200 Gazelles Plagued by Hyenas

Please read the charity request below and answer the questions that follow it.

The Still Water Habitat is a remote sanctuary for Thomson's gazelles. Each year, as the seasons change, 200 gazelles that reside there face a severe threat of death from an attack by roaming hyenas. It seems that these attacks are done for mere sport, as the hyenas seem uninterested in the 200 gazelles as a food source. These assaults can be prevented with the construction of a new fence surrounding the sanctuary. Unfortunately, unless $8,000 is raised for the construction of this fence, this annual slaughter will continue.

Imagine that you could donate money toward the construction of this fence today. Any money that you donated would go directly to saving these 200 gazelles. Right now, these gazelles are essentially defenseless against the vicious killings. Without your support, and the support of others, these 200 gazelles will surely perish in the next hyena migration.
APPENDIX B: CHAPTER 3 STIMULI

BUSINESS SCHOOL SCENARIOS

It is November of 2010 and you and your group are working on your case presentation in one of the business school study rooms. You booked the room for an hour, but you got started late so decide to stay later. However, shortly after your time is up, a staff member (pictured below) enters the room and asks you to leave. He suggests that if you need more time you reserve it. One of your group members interrupts that this isn’t fair because no one else has booked the room. The staff member points out that your group hasn’t booked the room either as policy requires. He insists you leave, and locks the door behind you. After the rest of your group leaves you ask him if you can book another room through him. He says that he was just checking on the rooms before his dinner break and that you will have to wait an hour until he comes back. You resume your studying in the lower level lobby instead.

It is November 2010 and you and your group are working on your case presentation in one of the business school study rooms. You booked the room for an hour, but you got started late so decide to stay later. However, shortly after your time is up, a staff member (pictured below) enters the room and asks whether you have it reserved. You tell him your reservation has just finished but you would like to stay in the room a while longer if that is possible. He tells you that someone else has the room reserved soon, but he can put them in a different room so you don’t have to move. He has to delay his dinner break to extend your reservation and move the other one, but he tells you that it is not a problem. When he asks if there is anything else he can do for you, you request directions to the nearest copy-machine and he gives you helpful directions. You then resume your studying.

You are sitting in a class, and the computer keeps crashing, disrupting the lecture. The teacher calls the support staff for assistance. A staff member (circled below) eventually arrives to help. At first the staff member has some trouble figuring out what the problem is, but eventually solves it and ensures that it won’t happen again. The class resumes without any problems.
There were 3 tech support people on duty that day. The one who removed you from the room is circled.
DOMINO’S SCENARIOS

Imagine that you go in to Domino’s Pizza to pick up some pizza you ordered. They said it would be ready at 7:30, and you arrive at 7:30 but are told you will have to wait 15 minutes for it to be finished. The employee working with you tells you that you owe $35 even though the original quoted price was $27. You ask him to double-check the price and he reluctantly complies and eventually tells you that the price is $27. He’s unapologetic about the delay and the error with the price.

Imagine that you go in to Domino’s Pizza to pick up some pizza you ordered. They said it would be ready at 7:30, and you arrive at 7:30 to see the pizza being finished right on time. The employee working with you tells you that you should owe $27, but he gives you a coupon that saves you $5. He’s very polite and helpful. As you are leaving in your car, the employee comes running after you to flag you down and give you a part of your order you had accidentally forgotten.

Imagine that you later go back to the same Domino’s Pizza to pick up another order. It seems fairly busy. There is a short delay while the employee working with you has some trouble figuring out which order is yours. He eventually figures it out, takes your payment, and sends you on your way.
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