AN ATTRIBUTIONAL PERSPECTIVE ON THE COMMUNICATION OF NORMS

by

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ABSTRACT

Why do some shared beliefs and behaviors spread across a given population and persist over time, whereas other beliefs and behaviors do not? Different perspectives that help provide an answer to this question are critically reviewed. These perspectives fall under two broad headings: those that focus on the degree that norms correspond to some kind of objective reality, and others that focus on the degree that norms correspond to some kind of subjective reality. An attributional perspective is introduced that suggests that whether a norm will likely be communicated in a given context or not is partially determined by the degree that it is perceived to be objectively tied to reality. The present four studies focus on two psychological cues that tend to influence these attributional processes. Across all studies, participants read stories about a normative behavior and then answered questions about those stories. Studies 1 and 2 focused on an "impression management" cue. Study 1 provides evidence that the presence of a member of a positively stereotyped group reduces the intention to communicate a positive impression of that group later on. Study 2 provides weaker evidence that this same process occurs for a negatively stereotyped group. Studies 3 and 4 focus on an authority figure's command cue, both providing evidence that the explicit command of an authority figure can, under some circumstances, decrease the likelihood that persons will endorse a normative behavior. Study 3 suggests that this effect is moderated by the level of control the authority figure has over the participant. Study 4 suggests that this effect is moderated by the expertise of the authority figure in the area of knowledge relevant to the norm. Theoretical and practical implications of the attributional perspective are discussed.

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CHAPTER ONE

Introduction: Why Do Some Norms Persist?

Why do some shared beliefs and behaviors spread across a given population and persist over time, whereas others do not? A common-sense answer to this question might be "the norms most likely to spread and persist are those that most optimally satisfy the practical needs of the individuals who hold them." Thus, norms that provide an optimal "fit" with the surrounding environment should survive; those that do not, should not. For example, one might suggest that the norm of pruning roses in the late autumn persists because pruning at this time most optimally serves the needs of the gardener -- it makes the object of the gardener's labor more likely to bloom the next summer.

That norms are more likely to spread and persist when they provide a good fit with objective reality is almost certainly correct. But this explanation is also almost certainly incomplete. Of the vast number of norms in the social milieu, many persist despite clearly being less than optimal in this sense (see Cialdini & Trost, 1998). Consider, for example, the Toronto businessperson who walks to work in a three-piece suit and constricting necktie in spite of the fact that it is over 30 degrees Celsius outside. Far from optimally matching reality, this seems counter to optimality -- yet thousands of businesspersons wear such clothes on a regular basis during hot and humid summer days.

Even if norms initially are extremely optimal in their match with the immediate environment, given enough time, most cultural norms outlive their optimality. Consider

that the "QWERTY" keyboard format was originally adopted in part because it <u>slowed down</u> typists. This function of the QWERTY norm was originally optimal because it reduced the jamming on the old mechanical typewriters -- a real problem when QWERTY was first developed. Keyboard jamming is not a problem now, however, and the QWERTY norm today is far from optimally serving the needs of typists who would (almost assuredly) be very happy to type faster on some other format. But this begs the question: Why does the QWERTY keyboard survive? And, more pointedly, why do <u>some</u> norms survive in the face of a declined or non-existent optimality, whereas others die out?

It may be tempting to ignore this question altogether because its object is too complex, or seems too arbitrarily determined, to be worthy of empirical study. Humorist Scott Adams (of "Dilbert" fame) facetiously suggests through his cartoon character "Dogbert" that certain cultural rules, such as etiquette, emerged because an ancient group of cave dwellers thought it would be funny to play a joke on their children: They taught their children certain absurd behaviors and told them such behaviors were completely normal. When the children had grown old, the parent cave dwellers planned to inform them of their little joke and have a good laugh. The trouble is, according to Dogbert, that the parents were killed in a mammoth stampede before they could reveal the joke -- so the children grew up believing that the absurd behaviors existed for a reason. And so such customs have been passed down through the generations, despite their absurdity (Adams, 1993).

Of course, Adams is merely trying to be funny in suggesting that many norms are essentially arbitrary. But there is a growing tendency over the last two decades among

those who study norm formation to suggest that norm emergence and persistence is beyond our ability to predict and understand at a nomothetic level (e.g., Leach, 1982; Rosaldo 1989). Although it is certainly the case that some shared beliefs and behaviors spread through processes that on the surface may appear entirely arbitrary and thus random, the temptation to merely dismiss the study of emerging norm content on such grounds should be resisted (Schaller & Conway, 1999).

Indeed, the void of knowledge concerning norm emergence and persistence may result, not from the fact that such processes cannot be understood, but rather from a lack of empirical and theoretical attention to the subject. The study of how norms emerge and persist has received far less attention than other norm-relevant topics, such as the consequences that norms have (Cialdini & Trost, 1998; Nielsen & Miller, 1997). The purpose of the present thesis is to help facilitate the understanding of why particular norms persist. First, in Chapter Two, past perspectives on how norms persist will be discussed. This broad discussion will include multiple approaches that are relevant to many different aspects of norm perpetuation. In Chapter Three, the lens will be narrowed to focus on one particular aspect of norm perpetuation: The intent to communicate/transmit a norm to other people. Here, an attributional model of how norms are transmitted from person to person is presented. Then, four empirical studies are presented (in Chapters Four and Five) testing various hypotheses derived from this attributional model. After an exploration in Chapter Six of potential individual difference moderators, Chapter Seven concludes with a discussion of the theoretical contributions that these results make in the bigger picture.

CHAPTER TWO

Previous Approaches to Understanding Norm Persistence

Objective Correspondence Perspectives

Many different approaches in different fields have implicitly or explicitly worked under the same basic assumption: Normative beliefs and behaviors are responsive to a kind of "objective reality correspondence." That is, such beliefs and behaviors emerge and are perpetuated because they are directly responding (in predictable but potentially erroneous ways) to a reality that is commonly shared by members of a particular culture. There are two basic approaches within this umbrella: One that focuses on the environmental similarity, and one that adds to that environmental similarity an analysis of psychological similarity.

Environment

An extension of the common sense notion that norms emerge because they optimally serve the practical needs of the individuals who hold them suggests that cultural beliefs and behaviors emerge and persist as adaptations to their immediate environment (e.g., Berry, 1994; Insko et al., 1980; Romanelli, 1991). Perhaps because behaviors are very directly relevant to practical survival, the environmental perspective has tended to focus on behavioral (as opposed to belief) norms. For example, in frontier societies that lack social organization, it may be important to survival to develop an "I'm going to protect my turf" behavioral style. Because of this, frontier societies may develop a "culture of honor" where it becomes imperative to retaliate if there is a perceived threat to anything viewed as one's own, even one's own family (see, e.g.,

Cohen, 1998). Similarly, culturally-shared behaviors may adapt to the change produced by the rapid pace of technology (see, e.g., Berry, 1994), the surrounding climate (Smith & Schwartz, 1998), to the mean size of settlements (Berry, 1994), or to the location of the culture relative to the location of particular goods and services (Insko et al., 1980).

Each of these examples suggests that a key factor in predicting what sort of norms will persist is the continued "match" with the environment where they exist: Those norms that optimally match their present environment are most likely to spread and to survive; as this match begins to deteriorate (e.g., as the environment begins to change) the norms originally created as a response to that environment too will begin to die out. But why do some norms exist well after their optimality has declined? The primary answer that this perspective offers to this question is that there is a "time lag" -- once a norm is no longer adaptive, it simply takes time for it to be completely phased out (Berry, 1994). A related answer is that functionally optimal norms become so imbedded in people's behavior that it takes some type of external force to undo them even after they are no longer particularly useful (Cohen, 1998).

However, neither of these ideas can explain very well the spread and persistence of norms that seem to emerge without being particularly optimal to begin with. In addition, this perspective has a difficult time accounting for why populations with similar environments can develop very different norms. For example, research comparing "cane-cutter" and "fisherman" cultures on the Caribbean island of St. Kitts suggests that two cultures can adapt to remarkably similar ecological backgrounds in very different ways (Aronoff, 1971). And, even for norms that once were highly optimal and then rapidly declined in optimality, what processes predict the duration of the time lag and

operate during it? Indeed, it may be legitimate to question whether the "time lag" is really an explanation at all: It only suggests that some norms live beyond being optimal; it does not explain why some norms live longer past this point than others. Thus, although a very useful starting point, environmental perspectives are not perhaps very rich in their insights into norm emergence and persistence.[1]

Common Inferential Input Mechanisms

The above focus on the environment can be taken a step further to look, not only at the shared nature of the reality that people perceive, but also the shared nature of the cognitive and motivational tools that people use to perceive that reality. This viewpoint more explicitly examines the tacit assumption from the environmental approach that persons share similar processing tools. Thus, it suggests that norms result from the combination of commonly-shared input and commonly-shared cognitive/motivational mechanisms that are employed by individuals to infer beliefs from the basis of those inputs (see Haslam, 1997). In other words, persons share similar norms because they process similar information and because they process that information similarly. An advance of this approach over the simpler environmental perspective is that the common inferential input perspective can, due to its focus on the underlying psychological structure, uncover ways that our psychological mechanisms tend to make us perceive objective reality erroneously. Thus, some of the focus within the common inferential input perspective has been on ways that we predictably but

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1. Although beyond the scope of the present thesis, it is worth noting that the environmental perspective also lends itself to looking at the conditions that might lead to greater underline production of potential norms -- or greater variation (see Campbell, 1965). Romanelli (1991) provides a review of theory and research relevant to this issue.

inaccurately perceive objective reality. However, in all common inferential input approaches the focal point, whether analyzing ways that humans perceive or misperceive objective reality, is on the degree that people's beliefs correspond to that objectivity.

Due perhaps to its focus on cognitive processes, research from within this perspective (that has dominated much recent research in psychology) has been most fruitful with respect to belief (as opposed to behavior) norms. One type of normative belief in particular, the stereotype, has received a great deal of attention. For example, evidence suggests that there is a "kernel of truth" to many stereotypes (e.g., Ford & Stangor, 1992), supporting the idea that persons are arriving at similar normative beliefs on the basis of processing similar information. In addition, research has suggested that, due to commonly-shared "social identity" motives, many out-group stereotypes tend to be negative: Downgrading other groups makes us feel good about our own (see Schaller & Conway, 2001). Thus, work on stereotypes suggests that those stereotypic beliefs most likely to be perpetuated are those that are both accurate and negative. Research on another type of consensual belief, values, suggests that values have universally-shared properties that emerge out of universally-shared motivational and cognitive systems (e.g., Schwartz, 1992; 1994; Schwartz & Bilsky, 1990; see Smith & Schwartz, 1998, for a review). This, like work on stereotypes, suggests that norms are shared and perpetuated in part because we share similar psychological processing tools.

Like all perspectives, the common inferential input approach has its limits. It has difficulty, for example, in fully accounting for how particular beliefs become consensually

shared in the first place (e.g., Schaller & Conway, 1999, 2001) -- a fault that potentially makes it difficult for the common inferential input perspective to predict norm perpetuation. There are several possible reasons for this. First, this approach offers up only the broadest predictions about why particular norms persist instead of other norms; these predictions inevitably leave a great deal of variance in need of explanation. For example, although research suggests stereotypes are sometimes accurate, stereotypes can be relatively inaccurate (McGarty, Haslam, Turner, & Oakes, 1993). Likewise, although research suggests that stereotypes will generally be negative, they can be positive (Schaller & Conway, 2001). Why do inaccurate and positive stereotypes frequently persist? In addition, even among the vast potential range of accurate and negative beliefs about groups, this approach still leaves open the question, "why did this accurate and/or negative belief persist as a description of this group and not some other equally accurate and/or negative belief?" Why, for example, would a group be generally believed to be "stupid" rather than "aggressive"? And, in spite of evidence of shared domains of beliefs across cultures, cultures do have differences in belief content (Smith & Schwartz, 1998). What accounts for such differences?

Subjective Correspondence Perspectives

Objective reality is not the only thing that a norm may correspond to. It may also correspond to things less directly tied to objective reality. For example, norms may be influenced by existing societal proscriptions and behaviors. That is, norms may persist, not because they provide an optimal match with some objective reality, but rather because they were either proscribed by some authority figure or were consistent with some other norm. Whereas approaches that focus on some type of subjectivity may

suggest what types of norms will emerge and persist, much of the focus of this approach has been on the mechanisms by which norms are transmitted. Thus, these approaches are not particularly apt at making specific predictions about the kinds of norms one can expect to emerge to begin with; however, they often suggest a psychological means by which norms can survive in the "time lag" once they lose their correspondence with more objective reality. This latter fact makes these approaches particularly useful in understanding exactly how norms persist despite appearances of uselessness. [2]

Norm History

The primary subjective thing that norms correspond to is other norms. It has been suggested from within a sociological perspective that beliefs are embraced by certain cultures because the beliefs that preceded it "prepared" the culture for the new belief. Thus beliefs are seen to emerge and persist because they correspond to previously-existing beliefs. For example, perhaps 18th century British intellectuals accepted and perpetuated the belief that philosophy should be grounded in present experience because they had previously believed in the Calvinistic idea that the human capacity for knowledge was so tainted that it made "metaphysical" knowing nearly impossible (Stark, 1958). Similarly, one could argue that the wide acceptance of capitalism amongst Protestants emerged out of the Protestant emphasis on wealth, hard work, and capital accumulation (Weber, 1904/1958).

It is not hard to see the psychological reasons why norms tend to be consistent

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2. It should be noted that the objective/subjective split is used here for heuristic purposes only; it is not the intent of the present thesis to enter into a philosophical debate -- however interesting that might be -- on the nature of reality. As we shall later see, it may well be that what psychologically counts as "objective reality" itself differs in different people and in different situations, and this could have implications for norm emergence and persistence.

with prior norms. Human beings do not like engaging in inconsistent beliefs or behaviors and are thus motivated to maintain consistency (see, e.g., Cialdini, 1993, 1995). Indeed, a whole psychological literature has emerged that analyzes the bad feeling people get when two of their own beliefs do not wholly agree, a state called "cognitive dissonance" (e.g., Festinger, 1957). Thus, to the degree that new beliefs and behaviors are perceived to be consistent with old beliefs and behaviors, those new beliefs should be more likely to be accepted and perpetuated.

Such thinking certainly has its explanatory merits, but is not without its limitations. Consistency motivations may not be as universal as often supposed. For example, there is evidence that dissonance reduction does not occur with the same robustness in Japanese culture (Heine & Lehman, 1997). In addition, evidence suggests that Chinese persons tend to be more comfortable than Westerners with contradictions (see Peng & Nisbett, 1999). Both findings suggest that concerns with consistency, although of great importance in Euro-North American cultures, may play a comparatively minor role in other cultures. Moreover, it is doubtful that this perspective really narrows the field of potential norms very much: There are potentially endless variations of norms that are logically or psychologically consistent with any given norm. And, even to the degree that it does narrow the range of norms, it is unclear exactly how this impacts norm perpetuation. If only those norms are perpetuated that are consistent with other norms, then why do norms ever change at all? It is easy enough to see how the previously-existing Calvinism influenced British intellectuals' initial acceptance of experience-based philosophy; what is unclear from this perspective is why Calvinism, at least, began to die out (and if experienced-based philosophy did not, then why not?). Thus, although more

clearly theoretically useful towards an understanding of why norms emerge initially, the norm history perspective's potential contribution to norm perpetuation is somewhat more difficult to unpackage.

Learning Processes as Transmission Mechanisms

A learning approach suggests that specific norms spread and persist, instead of other norms, because they are conditioned through their social environment (e.g., Opp, 1982). This "conditioning" can take the form of specific rewards or simply the modeling of the norm by others. For example, businesspersons wear suits in the summer instead of some other type of clothing because suit-wearing is reinforced in a number of ways: By the fear of losing one's job for not meeting the norm, by the confident nods and compliments of one's co-workers, by the many thousands of "suited" persons one sees every day on the way to work. The implication here is that if at some point another norm, like "wear shorts and a t-shirt," were reinforced instead, then that norm would replace the current norm. As long as the current norm is reinforced, it will persist. Thus, this perspective suggests that many norms are largely arbitrary and do not serve a particular practical "function" outside of the cultural and psychological context.

The psychological underpinnings of reward (see, e.g., Lieberman, 1990) and modeling (e.g., Bandura, 1969; Bandura & Walters, 1963) have received considerable attention in the psychological literature and will not be reviewed here. However, with respect to understanding our guiding question, "why do some norms persist instead of others?", the learning perspective's primary contribution seems to be an elaboration of the mechanisms whereby norms are transmitted from person to person. Studying the mechanisms of norm transmission is important, but the learning perspective seems

limited in its ability to deal with questions pertaining to the persistence of some norms and not others. Indeed, in suggesting that those norms that emerge and persist are those that are reinforced or modeled, this approach only begs the question "why are some norms reinforced or modeled to begin with?" If reinforcement causes norms to be perpetuated, then why are some already-existing norms reinforced more than others? A more fully developed learning approach may potentially be able to deal with these types of questions more completely, but right now there is a sense that it leaves the answer in the hands of arbitrary and unspecified factors.

Even as a mechanism of transmission, learning perspectives have limitations. Many norms emerge and persist in spite of the fact that they have not been rewarded or modeled, and in spite of the fact that other, directly competing norms have been both rewarded and modeled. For instance, research that uses multiple groups of participants to simulate generations of people (the "generational paradigm") has revealed that a "majority rule" group leadership norm emerged and persisted in conditions where a competing "seniority rule" norm was both rewarded with positive feedback ("experts" say the group made a great decision) and modeled by members of the first generation; indeed, a "majority rule" norm emerged and persisted even in conditions where that norm was actually given negative feedback (Nielsen & Miller, 1997).

Authority Figures as Transmission Mechanisms

There are many different potential sources of modeling and reinforcement in society, but one particular player in the field of society's normative injunctions warrants special attention: The authority figure. Perspectives that focus on authority figures suggest that cultural beliefs spread and perpetuate in a military-like fashion: They are

dictated from the top down (see Bartos, 1967; Cavalli-Sforza, 1993). From this perspective, norm persistence is a simple matter; someone in a position of authority sets the proscribed belief, and others believe it. Those norms persist that correspond to the proscriptions of authority figures. Variability exists across cultures with similar ecological conditions because different cultures have different authority figures proscribing different beliefs.

Psychologically speaking, persons do have a strong tendency to follow an authority figure's lead (see, e.g., Blass, 1991; Cialdini, 1995; Milgram, 1974). There are two converging reasons that may account for this tendency. First, persons are chronically motivated by the need to belong (see Baumeister & Leary, 1995). To the extent that authority figures are accepted as cultural or group leaders, their proscription on a particular belief or behavior could make group members feel strongly that to "belong" to the group they must obey the cultural leaders. Second, epistemological motivations may be important in individuals' acceptance of authorities' edicts. Persons have a strong need to know something, such that the state of not knowing what to do or think in a given situation is extremely unpleasant (Kruglanski, 1989). Authority figures may be particularly apt in serving this need by validating which beliefs and behaviors are the "correct" ones. Indeed, although people have a strong drive to know, we are also "cognitive misers;" we generally want to use as little cognitive effort as possible in our quest for understanding (see Fiske, 1995). Often, to more efficiently process incoming information, we will rely on the accepted "authority" of the source of a given belief to determine its veracity or usefulness, rather than actually processing the information in a critical way. Thus, widely-acknowledged authority figures may in general be more likely

to get their proscribed norms accepted.

Not all authority figures are equally likely to be successful in norm proscription, however, and a major contribution of this perspective is an analysis of the types of authority figures that are most likely to gain acceptance for the norms they attempt to transmit. For example, it has been suggested that parents are the most influential authorities for transmitting norms, and thus any society (such as the African Pygmies) that transmits its culture primarily through the parents is more likely to conserve its norms across generations (Cavalli-Sforza, 1993).

Although this perspective can almost certainly account for a percentage of consensually held beliefs (and has a degree of common sense on its side), it is limited in both its explanation of the psychological texture of group beliefs and in the scope of possible beliefs it can explain. Indeed, Bartos (1967) suggests that this approach cannot account for "informal organizations" of normative behaviors within groups: In other words, it cannot account for normative behaviors (or normative beliefs) that emerge more or less spontaneously from the bottom-up. Research that indicates that consensual beliefs can form spontaneously without an explicit direction from an authority (see Hardin & Higgins, 1996, for a review) suggests that, at the very least, many consensual beliefs may form more from the "bottom-up" than the "top-down." Indeed, it has been argued that most norms form through "bottom-up" processes (Opp, 1982; see also Colarelli, 1998). Thus, perspectives are needed to explain the processes by which norms "self-organize" in lieu of influential directives from an accepted authority, and how such norms persist through multiple generations without such directives.

Situational Context/Type of Norm

One approach to understanding norm perpetuation is to understand what types of contexts and/or what types of norms are particularly conducive to norm formation and perpetuation. For example, Sherif (1936) designed a paradigm to study norm emergence that involved participants staring at a point of light in a dark room. To participants, even though the light was stationary, it appeared to move. Participants in groups were asked how much the light moved; of primary interest was the degree that groups' responses tended to converge. Research from within this classic paradigm suggests that certain situational circumstances, namely high uncertainty or ambiguity, serve as a precursor to the emergence of entirely non-functional social norms (Jacobs & Campbell, 1961). This suggests that ambiguity or uncertainty may potentially moderate the particular developmental path that a given norm may take; however, it is worth noting that this is not directly relevant to the specific content of that norm. Consider that groups in these studies formed beliefs that, although similar to other group members under conditions of ambiguity, widely varied in content (e.g., the degree they perceived the light to "move").

More directly relevant to norm perpetuation, a particularly interesting finding from within this paradigm is that more "arbitrary" norms -- as defined by their extremity from control groups -- were likely to die out sooner in a "generational" paradigm (MacNeil & Sherif, 1976). Other research has also suggested that extreme norms are less likely to be perpetuated as well, although this effect depended on how norm perpetuation was measured (Campbell & Fairey, 1989). If norm perpetuation was measured in terms of absolute agreement (e.g., saying one completely agrees with the norm), then extreme norms were less likely to be perpetuated. However, if norm perpetuation was measured

in terms of relative influence (e.g., the degree that a norm makes one shift positions), then extreme norms were actually <u>more</u> likely to be perpetuated (Campbell & Fairey, 1989). While this is consistent with the idea that extreme norms are not conducive to true perpetuation, it also suggests that such norms nonetheless can have an important influence.

Communication Processes as Transmission Mechanisms

In all of the above subjective correspondence approaches, it is assumed that, in some fashion or another, a norm is being communicated from one set of individuals to another set. But more explicitly examining how communication processes impact norms could itself prove to be fruitful for understanding norm emergence and persistence. A communication perspective suggests that those beliefs and behaviors that are most likely to be successfully communicated are also most likely to become and remain consensually shared by a large group of persons. This idea is either explicitly or implicitly contained across a range of theoretical perspectives (Campbell, 1965; Latane, 1996; Schaller & Conway, 2001; Schaller & Latane, 1996; Sperber, 1990). This basic assumption of the communication perspective has received empirical support. For example, Schaller, Conway, and Tanchuk (2001) found that modern-day participants' ratings of the likelihood that they would communicate about a particular trait predicted which traits persisted (and which traits died out) in the stereotype of African Americans across 5 "generations" from 1933 to 1989 (see also Schaller & Conway, 2001).

However, this starting point only begs the question: What makes a norm likely to be successfully communicated? The communication approach suggests that any individual-level variable relevant to communication content can influence the emergence

and persistence of a norm through the mediating mechanism of communication -- even if the individual-level variable itself seems unrelated to the normative belief or behavior (Schaller & Conway, 1999, 2001). For example, because persons are fundamentally motivated to belong (Baumeister & Leary, 1995), they will generally try and present themselves in the most favorable light possible to other people. Although phenomenologically unrelated to the contents of shared beliefs such as stereotypes, these impression-management motives can impact stereotype formation via the mediation of communication. Previous research suggests that communicating individuals who believe that talking about negative things is associated with success (and thus will make them look successful) were more likely to form stereotypes that reflect a negative (versus a positive) focal trait than dyads who did not have such a belief. This effect was not fully accounted for by purely individual-level factors (Schaller & Conway, 1999), suggesting that actual interpersonal communication played an important role in the emerging norm content.

A limitation of the communication perspective is that its predictions are highly dependent upon specific contexts, and thus it does not easily suggest general principles for understanding the emergence and persistence of norms -- especially when the populations being considered are large. (Of course, this is not a problem unique to the communication perspective; however, it does seem a particularly pronounced difficulty with it). The notion that communication mediates which norms become widely accepted does not directly reveal which norms will, in fact, become widely accepted; predicting norm emergence and persistence from the communication perspective requires a detailed consideration of which beliefs and behaviors are most likely to be

communicated about in a given population, as well as the current individual- and group-level processes that might relevantly affect reception of those beliefs and behaviors. Attempting this is no simple matter. Thus, although providing a potential tool for understanding why specific norms emerge and not other norms, the communication perspective leaves considerable variability unaccounted for.

Transitional Summary: What Do and Don't We Know?

All of the above perspectives help us get closer to answering the question "why do some norms persist instead of others?" From these viewpoints, a general picture of norm emergence and persistence may be painted as follows. Those norms that emerge do so generally because of a commonly-shared objective reality and/or commonly-shared psychological tools. Gradually, for many norms the reality (through either environmental changes or movement to another environment) no longer matches the norm; yet, many of these norms survive anyway. They survive because they are endorsed by authority figures, reinforced by society, or are highly communicable. Indeed, some norms may outlive their match with objective reality long enough to serve as the basis for new norms that, although themselves not corresponding well with objective reality, do correspond well with the old norm (for a similar model of the phases of norm perpetuation, see Vandello & Cohen, in press).

This sketch certainly has merit; but it leaves some rather large holes to fill. For the objective correspondence perspectives, there appear to be so many counter-examples of norms that are not, and never were, tied to objective reality that it suggests that much more is needed to explain the emergence and persistence of particular norms than mere environmental conditions. On the other hand, subjective correspondence

perspectives seem lacking in their ability to give an origin for a norm that is not itself another norm. And even the answers they do provide leave a large amount of room for variability. For example, what variables help determine whether a norm will be successfully communicated by others? Why do authority figures' commands not always increase the spread of a norm?

That there is a theoretical vacuum in our understanding of why some beliefs and behaviors are culturally shared -- while others are not -- is widely accepted (e.g., Schaller & Conway, 2001; Sperber, 1990). Sperber (1990, p. 25), in lamenting the current dearth of understanding of how particular beliefs come to exist at the consensual level, stated "at this stage, either the question is answered in a vague, fragmentary, and tentative way, or it must be left alone: there is just not enough sound theorizing and well-regimented evidence in the domain to do otherwise." What follows is an attempt to help advance our theoretical understanding of one aspect of norm persistence.

CHAPTER THREE

One of the things implicit in the previous review is that there are multiple aspects to norm perpetuation, and thus, multiple angles from which one can come at the question. One can consider how persons come to believe norms at the psychological level, how they communicate those norms, how norms are performed, and on and on. Each perspective reviewed here is more helpful towards understanding some aspects of norm perpetuation more than others. The present framework is no different. It focuses its lens on a narrow part of the perpetuation process relevant to interpersonal communication: Processes that influence the psychological intent to communicate a belief.

As already indicated, communication processes can have an important impact on norm perpetuation. There are multiple aspects of the communication process itself. One very important part of the communication-norm perpetuation link involves psychological processes that make someone think "I hear other people saying this thing -- I think I'll believe that thing myself!" Almost certainly, the adoption of a particular normative belief can be an important first step in the chain of interpersonal norm communication. The more likely I am to believe something, the more likely I am to pass that belief on to someone else.

Private beliefs alone are not enough, however. If persons merely privately hold beliefs without ever communicating those beliefs to others, then the norm perpetuation chain is effectively broken. Thus, an important link in this chain involves those psychological processes that suggest to persons that "I want to communicate this belief" (see Schaller & Conway, 2001). The psychological intent to communicate a belief,

although not necessary for actual attempts to communicate a belief, is almost certainly positively correlated with it. Thus, those processes that contribute to an intent to communicate a belief to someone else will almost certainly be relevant to actual attempts at communication.

The present framework deals with these two aspects of the communication process: The private acceptance of normative beliefs, and the intent to communicate those norms to other people. As such, it deals with only one small aspect of the processes that are potentially involved in norm perpetuation. While the framework presented here is considered to be a potentially important link in the chain, it is only a link. Inevitably, any framework that attempts to explain and test how norms are perpetuated is forced to deal with only a few aspects at a time. The topic is simply too big to encompass all in one shot. Thus, the present framework does not propose to be (nor do the studies propose to test) an all-encompassing theory of how norms form. (Such a theory would be analogous to an all-encompassing theory of how the mind works -- a noble but far-reaching goal). Rather, it proposes the much more modest goal of testing aspects of norm communication that are presumed to be logically relevant to how norms are perpetuated at the grander level. The present framework attempts to apply well-understood attributional principles to an understanding of how norms are communicated.

The Present Framework: The Importance of Norms' Perceived Objectivity

Imagine a group of people who believed that the best thing to do to a rose in late autumn is to serenade it with Barry Manilow music. It is possible that they may be right: After all, our perceptions of the match between our behaviors and objective reality can

hardly be perfect. Although it may seem to us that pruning roses is better for their survival than Barry Manilow, it may seem different to someone else.

This example illustrates something potentially important to norm communication: What counts as "objective reality" is, psychologically speaking, filtered through the minds of people. That is, objectivity has a subjective element. It may seem to us like singing Barry Manilow tunes to roses is not based on any pragmatic objective reality; but it may seem to someone else like it is. Thus, a potentially useful question to ask is "Under what conditions does a person think a given behavior or belief is grounded in objective reality?"

The Influence of Consensus on Attitudes Toward Beliefs and Behaviors

Observing lots of other people holding a particular belief or engaging in a particular behavior has a very powerful psychological impact on human beings. When other people are observed to believe or do a particular thing, we tend to think that thing is grounded in objective reality or otherwise "good" in some sense (Alicke & Insko, 1984; Hardin & Higgins, 1996), and we tend to believe or do the thing ourselves. There are several converging reasons for this tendency.

Consensus compels us, in part, because of belongingness motives (e.g., Baumeister & Leary, 1995). We may feel that, if we want to fit in (and thus meet this very basic psychological need), we must believe or act similarly to other people. Consensus also serves to validate a belief or behavior because "shared reality" or "social proof" is a primary means of quenching our thirst for knowledge in a given situation (e.g., Cialdini, 1993; Hardin & Higgins, 1996; Webster & Kruglanski, 1994). We may feel like other people's beliefs or behaviors will help us remove any

uncertainties in our minds.

Consensus is also useful to us in trying to make attributional judgments. When persons observe others doing a particular behavior or holding a particular belief, they often implicitly ask the question "why are they doing that?" (Kelley, 1967). In attempting to answer this question, persons often attend to particular types of information that help logically inform the decision they ultimately make. One of those types of information is the degree that there is consensus on a particular behavior or belief. In general, persons are more likely to attribute a behavior to the "stimulus" if lots of people are doing it (e.g., Fosterling, 1989; Hewstone & Jaspars, 1987; Kelley, 1967; McArthur, 1972). This means that, if there is consensus on the behavior in question, persons will tend to attribute the behavior to something unique about that behavior that compels others to do it. One way of viewing this is that they will be more likely to think that it is a "good" behavior (or, similarly, a "good" belief), in the same sense that one will likely think a movie a "good" movie if lots of people see it.[3]

The key for our present purpose is that belongingness motives and attributional processes converge on a single fact: The more consensus there is on a given behavior or belief, the more, in general, persons are likely to view that behavior or belief as grounded in some kind of legitimate objective reality and, by extension, to want to communicate that belief to others. This implies that this general tendency towards

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3. Of course, this is oversimplifying the attributional process in a number of ways. For example, attributional processes would lead to a person thinking a movie is "bad" if everyone thought it was bad. This, while true, only complicates our current question of the perceived "goodness" of norms, because the norm in question in this example would be "perceiving the movie is bad" -- a norm that would be perceived as inherently "better" to the degree that a lot of people endorsed it. In addition, although it has clearly been demonstrated that persons do not make attribution-relevant decisions in an unmotivated, logical manner, this does not undermine the point that persons are still more likely to make stimulus attributions when consensus is high; and this is where the present focus lies. Individual and situational differences in attribution-relevant motivation are certainly meaningful, but beyond the scope of the present theoretical structure.

accepting consensually-shared beliefs and behaviors as objective contributes to the perpetuation of norms over time. It also suggests two related things that serve as the primary theoretical starting point for the present framework:

(1) Anything that <u>undermines</u> the degree that consensus reflects the objectivity of the norm will also be particularly likely to undermine the desire of social perceivers to both adopt the norm and to communicate the norm to others.

(2) Conversely, anything that <u>enhances</u> the degree that consensus reflects the objectivity of the norm will also be particularly likely to enhance the desire of social perceivers to both adopt the norm and to communicate the norm to others.

The Definition of A Norm's Perceived "Objectivity" and "Subjectivity"

The "objective/subjective" dimension, at a broad level, generally refers to the degree that something grounded in actual reality ("objective") or not ("subjective"). The application of these terms to people's perceptions of norms involves some clunkiness; it is thus worth clarifying the usage of these potentially confusing terms up front. At a basic level, the term "perceived norm objectivity" refers to the degree that persons perceive that consensus exists because people are independently responding to some reality. This can be confusing, because (in one sense) everything that people respond to is reality. However, in this paper, the term "reality" is used more specifically to refer to things based in the actual individual experiences of group members and/or things that are genuinely individually believed by the group members. Thus, if I think that group members are all telling me that there is a two-foot-long spider in the next room because they all went into the room and saw the spider, then I would believe that the resulting agreement emerged on account of some real experience with the two-foot-long spider

(and thus "perceived norm objectivity" would be high). However, if I believed that group members were saying that there is this huge spider in the next room because someone had started a rumor about big spiders that had created a mass hysteria in the group, then I would be likely to perceived that norm as "subjective."

For the present purposes, then, any influence that is separate from actual individual experience (such as social influence processes) will be considered "subjective." While of course this is not without its problems (after all, most of our knowledge comes from the "influence" of other people -- and most of it turns out to accurately match reality quite nicely), it has merit. One of the primary (and much-discussed) values of consensus is that it provides a triangulation on reality; if people from different perspectives say the same thing, then we view that as informative. However, things like social influence take away from the triangulation, because they remove either the trustworthiness or the independence of the sources necessary for it -- and thus, in some way, separate the consensus from reality.

Thus, for our present purposes, "perceived norm objectivity" refers to persons believing that others agree because of some independent experiences that cause them to genuinely believe and thus practice the same thing; "perceived norm subjectivity" refers to believing that others agree because of some purely social influence processes -- like mutual social influence or an authority figure's command.

With those definitional caveats out of the way, we shall now turn to the question: What sorts of things might have an impact on how much norm consensus directly reflects a tie to objective reality?

Psychological Cues Relevant to the Perceived Objectivity of Consensus

Suppose you are already one of those rare beliefs that have become widely accepted. What would you want to do in order to continue to survive through multiple generations? What sorts of things ought you to avoid? From the present perspective, one thing you would definitely want to avoid is leaving an impression in the minds of those who hold you that you are not really strongly tied to objective reality. Doing so would make others less likely to believe and thus communicate you to others. Thus, any psychological cues that might lead people to believe you are not tied to reality would be potentially hazardous to your cherished normative status. Conversely, it would be important to become associated with any cues that might lead people to believe you _are_ legitimate. What might these cues be?

It is easy to imagine some very straightforward cues such as those that simply reveal direct information about a norm that ties it to or divorces it from objective reality. Consider, for example, Dogbert's suggestion that many normative beliefs and behaviors, such as etiquette, arose because the persons were taught the behaviors but _not_ taught exactly _why_ the behaviors had become culturally accepted in the first place -- that the parents were playing a joke on their children. Thus, the children communicated these norms to their children, who communicated them to their children, and on and on. Now suppose that it is explicitly revealed that, in fact, these norms originated from a big joke. "Big jokes" seem unlikely to inspire perceptions that the norm exists for a legitimate reason; thus such a realization would (from the present viewpoint) likely decrease the chances that someone would adopt that norm or would want to communicate that norm to someone else. Conversely, suppose people are told that the norms actually originated from years of research demonstrating that they tended to result, say, in good

physical health. This would probably tend to increase the match between the norm and objective reality, and thus increase the chances that someone would think the norm worth communicating to someone else.

Of course, although theoretically sensible, these extreme examples suggest little more than if you tell people directly that a norm is or is not tied to objective reality, they will believe you and adjust their beliefs and communications accordingly. And, indeed, previous research indicates that giving persons information that directly suggests a norm does not match some objective information causes people to disregard the norm (Maheswaran & Chaiken, 1991). However, the present approach implies that more subtle psychological cues may also impact how reality-based people perceive a norm is. In particular, this approach focuses on more complex attributional processes relevant to how we determine why, exactly, a given norm is widely shared in the first place.

Perceived Objectivity and the "Circumstance" Attribution for Consensual Behaviors and Beliefs

It was noted above that, all other things being equal, persons will generally assume that if lots of other people believe or do a particular thing, then that thing must be tied in some way to reality. However, persons can attribute highly consensual behaviors to something other than the behavior's compellingly objective qualities. They can also attribute it to environmental factors, or what has previously been called a "circumstance" (e.g., Kelley, 1967; Hewstone & Jaspars, 1987; Fosterling, 1989). "Circumstance" is used here to mean anything not directly attributable to either the person or the stimulus. So if all professors at the university show up in a tuxedo one

day, I may attribute that consensual behavior to the fact that tuxedos are really great ("stimulus") or to the fact that the president of the university ordered the professors to wear them ("circumstance").

Logically (and psychologically), any psychological cue that increases the probability of making a "circumstance" attribution decreases the probability of making a "stimulus" attribution, and vice versa (see Cheng & Novick, 1990). This may have important implications for a norm's perceived objectivity, and, in turn, a norm's likelihood of survival. If I think that all my professors are wearing tuxedos because they believe that there is something compelling about cummerbunds and bow ties (the stimulus attribution), then the consensus I see in my professors' behavior may inspire me to believe that "tuxedos are cool." However, if I believe that my professors are wearing tuxedos because circumstances have forced them to (the circumstance attribution), I may dismiss this consensus as having nothing to do with tuxedos per se -- and thus I will be less likely to carry on the tuxedo norm myself as a result.

In the language of attributional theory, we can speak of cues that impact these kinds of attributional judgments as "discounting" and "augmenting" cues. With respect to normative beliefs and behaviors, discounting cues cause persons to engage in circumstance attributions, and as a result cause them to dismiss the validity of the norms. On the other hand, augmenting cues cause persons to engage in stimulus attributions, and as a result cause them to believe the norm is even more valid. (Please see Figure 1 for an illustration of the present theoretical approach). Thus, the important question becomes: What sorts of psychological cues might cause people to engage in different types of norm-relevant attributions?

Figure 1: Potential Path from Perceived Consensus to Norm Communication
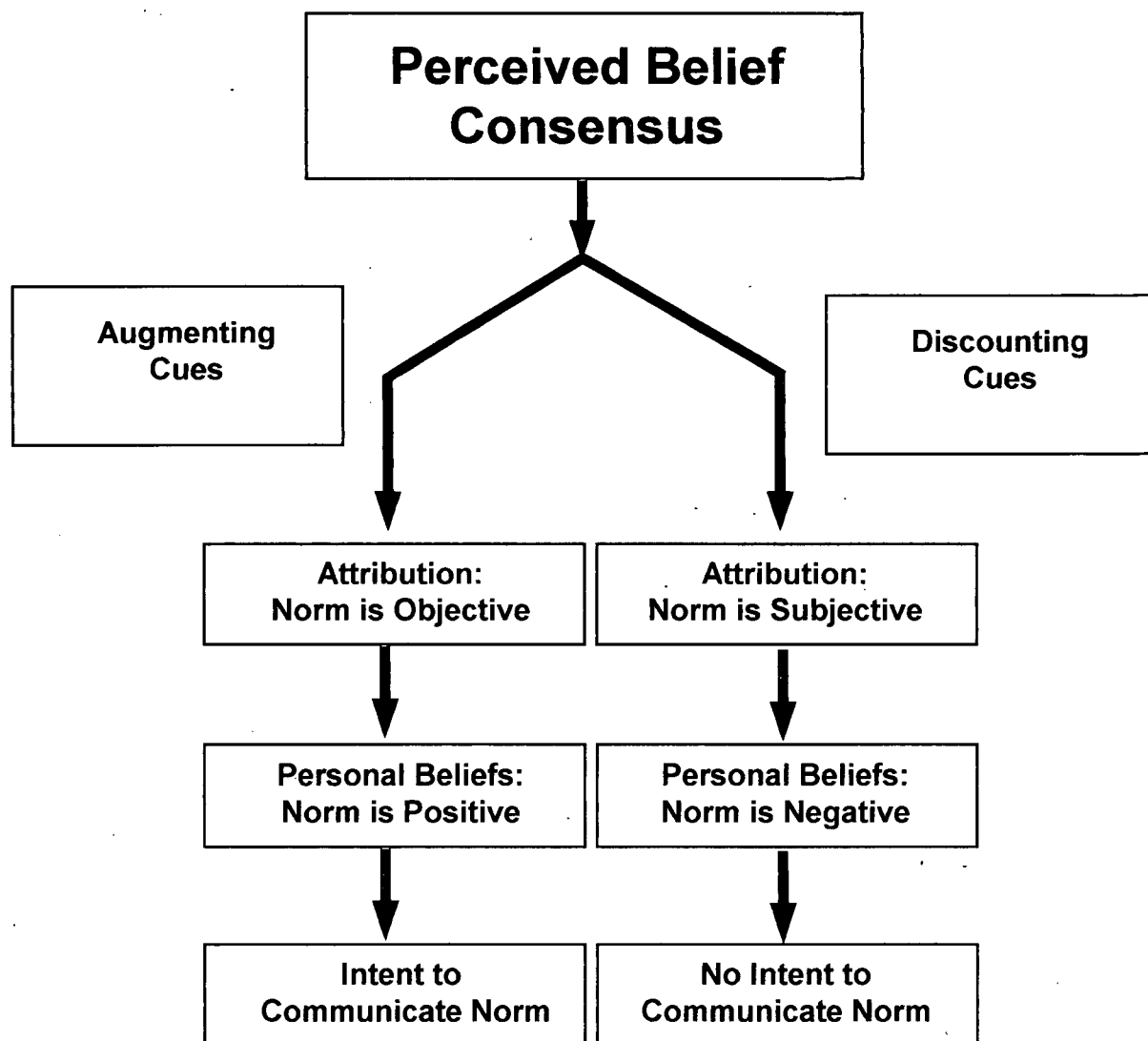
Previous Research on Norm-Relevant Attributions

Previous research suggests that psychological cues can importantly impact norm-relevant attributional processes. A primary example of the importance of attribution to the perception of norms comes from the literature on pluralistic ignorance. Pluralistic ignorance occurs when the members of a group all privately believe X, but mistakenly believe that everyone else in the group believes Y. As a result of the power of this perceived consensus, Y is perpetuated. Any cue that makes us think others' consensual behavior is more sincere or pervasive than it is in reality can inspire pluralistic ignorance. A classic example is when a professor tells the class "please ask questions at this point if you do not understand the material." Each student may desperately want to ask a question; yet no one speaks up, because every student mistakenly believes that all the other students do, in fact, understand the material (Miller & McFarland, 1987, 1991). This is essentially an attribution phenomenon: Persons attribute the silence of the other students to the fact that they know the material -- but each student privately knows that he/she does not know the material. The norm ("silence") is attributed to something about the persons ("they are all smart") rather than to the environmental circumstance ("everyone is silent because right now everyone is afraid of looking stupid").

Pluralistic ignorance can have important consequences for norm perpetuation. Cues that inspire pluralistic ignorance are, in effect, augmenting cues -- they cause persons to attribute the existence of the norm to properties of the norm itself (or to some real property of the persons engaging in the norm), instead of to some circumstance. For example, students at Princeton have exhibited pluralistic ignorance concerning

drinking behavior norms at the university: Students' private accounts of their own drinking preferences and behaviors are lower than their accounts of other students' drinking preferences (Prentice & Miller, 1993). (This is a behavioral contradiction, since not everyone within a bounded population can drink less than his or her neighbors.) Although no research has directly examined cues that impact pluralistic ignorance and (thus) norm perpetuation, this process can potentially help explain why this and other such norms are perpetuated. If persons realized that others (like themselves) really did not like to drink as much as appearances may indicate, in general Princeton students might drink even less than they do. If pluralistic ignorance is undermined, then the norm might in part be robbed of its power. But cues that support pluralistic ignorance -- for example, persons talking about how much students at Princeton drink -- likely provide support for the norm's actual survival on campus.

Pluralistic ignorance cues are one very specific kind of psychological cue that can impact both attributional processes and norm communication. Many other potential cues abound. Thus, the present research attempts to broaden the scope of potential cues by investigating two different types of psychological cues that are hypothesized to impact norm-relevant attributions and, in turn, persons' intentions to communicate those norms to others: (1) Impression Management Cues and (2) Authority Figures' Command Cues. Chapter 4 deals with the former; Chapter 5 deals with the latter.

Differences Between Past Work on Attribution and the Present Framework: Attributions About Individuals Versus Attributions About Norms

As we shall see in Chapters 4 and 5, the basic attributional framework presented

here has already received support in a number of studies that focused entirely on the attributions people make about individuals (e.g., Fein, 1990, 1996; Eagly, Wood, & Chaiken, 1978; Pryor, Rholes, Ruble, & Kriss, 1984). The main task of the present work is to demonstrate how these already well-established attributional processes also have implications for how persons interpret consensually-shared beliefs -- and ultimately how this impacts their acceptance of and intention to communicate those norms.

However, it should be noted that there are some fundamental differences between making attributions about individuals and making them about norms. At an obvious level is the impact of sheer numerical difference: An individual attribution is much simpler and cleaner than an attribution pertaining to multiple people. Multiple persons' actions may potentially have different causes; an individual's single action logically cannot be 100% due to the stimulus and 100% due to the person, but two persons' single actions could -- one person's action could be due to the stimulus, the other the to person.

There is a subtler but more important difference in the two cases. Making an attribution about a person mostly involves trying to decide what caused or motivated a particular behavior. Making an attribution about why a norm exists involves trying to decide, not only what caused a particular behavior, but what caused persons to <u>agree</u> on that behavior. Because agreement frequently involves mutual social influence that requires a kind of group-level explanation, this introduces a different and potentially more dynamic level of explanation for norms. Trying to decide exactly why "John really thought <u>The Hunt for Red October</u> was a great movie" is a different type of task in subtle ways from trying to decide exactly why "John, Sally and Frank all agreed that <u>The Hunt</u>

for Red October was a great movie." Thus, although the basic logic of attribution applies roughly equally in both cases, there is the potential for the latter case to show a tendency to inspire more dynamic and interpersonal-based explanations (e.g., they came to the belief through a "contagion" process). Obviously, there is a great deal of overlap between the two cases -- indeed, the present approach counts on the same basic underlying attributional processes occurring with both individuals and norms. But because the questions involved in making attributions about individuals and norms may be subtly different, it remains an important task to see exactly how persons make attributions for consensually-shared beliefs and behaviors.

Indeed, the present work actually turns much of the attributional literature on its head. The vast majority of studies linking consensus and attribution have discussed how consensus impacts attributional processes (e.g., consensus is generally used as an independent variable and attribution as a dependent variable). The present work partially turns this around by asking "what sorts of attributions do people make about consensus?" Most (but not all; some counter-examples will be discussed in Chapter 7) previous work in this area assumes a priori that consensus is a heuristic that has certain attributional consequences. The present work intends to show that not only do people assign different underlying causes about why a group of people agree in the first place, but also that this difference in attributions has consequences for the acceptance of and the intent to communicate those normative beliefs.

CHAPTER FOUR

Impression Management Cues

Many types of communication-relevant cues may impact the attributions people make about norms. In this chapter, we are going to explore the implications of considering a particular set of communication-relevant cues: Those associated with impression management.

People are frequently motivated to present themselves in a positive light to others. This fact alone can have consequences on the emergence of consensually shared beliefs (Schaller & Conway, 1999, 2001). However, not only are we motivated to present ourselves in a positive light, we are also frequently aware that other people, too, want to present themselves in a positive light to us. Psychological cues that make it salient to us that others are engaging in impression management may cause us to discount what it is that these others are saying.

Indeed, research indicates that cues indicating such "ulterior" motives (of which impression management is but one kind) can in fact cause persons to discount what another person is trying to communicate (Fein, 1990, 1996; Jones, Davis, & Gergen, 1961; Eagly et al, 1978). For example, in one study, if participants believed that another person was communicating in order to ingratiate themselves to someone, those participants were less likely to think that the ingratiating person was really expressing his or her true opinion (Fein, 1996). Similar results have suggested that these attributional processes actually cause changes in attitudes about the target opinion: Eagly and Chaiken (1978) found that participants were less persuaded by pro-environmental

arguments from someone who had a lot of political stake in environmental protection (and thus perhaps an ulterior motive); participants were comparatively more persuaded by a pro-environmental opinion from a businessperson.

The theory underlying these results is straightforward. If I believe that someone has an ulterior motive, then I will not trust that they mean what they say -- and thus their communications will be less likely to persuade me. However, the potentially interesting implications of this basic attributional fact to norm communication have yet to be explored. What happens if I suspect, not that one person has an ulterior motive, but that a whole lot of people are giving the same answer for an ulterior reason? In other words, what happens if I think a norm exists for an ulterior reason?

Imagine, for example, what would happen if you witnessed a conversation where everyone was talking positively about a particular group, say the Society for Brilliant Psychologists Named Luke. Now imagine the same conversation, except this time it is evident to everyone that there is a member of the SBPNL present. The presence of a group member might serve as a cue to everyone saying "whoa, we had better talk pretty positively about this person's group, else we might look mean or we might offend this person." But, ironically, everyone knowing this means that, from an attributional standpoint, persons are not likely to put a lot of stock in the positive things that the other savvy conversationalists say. Thus, if a positive norm appears in the face of a social cue suggesting that it ought to appear, people may attribute the positivity consensus to the social cue and not to anything objective. In other words, the impression management cue can serve as a reason to discount positive norms. This, in turn, may reduce persons' desires to adopt and communicate these positive norms. Please see

Figure 2: Impression Management Cues and the Communication of Positive Norms
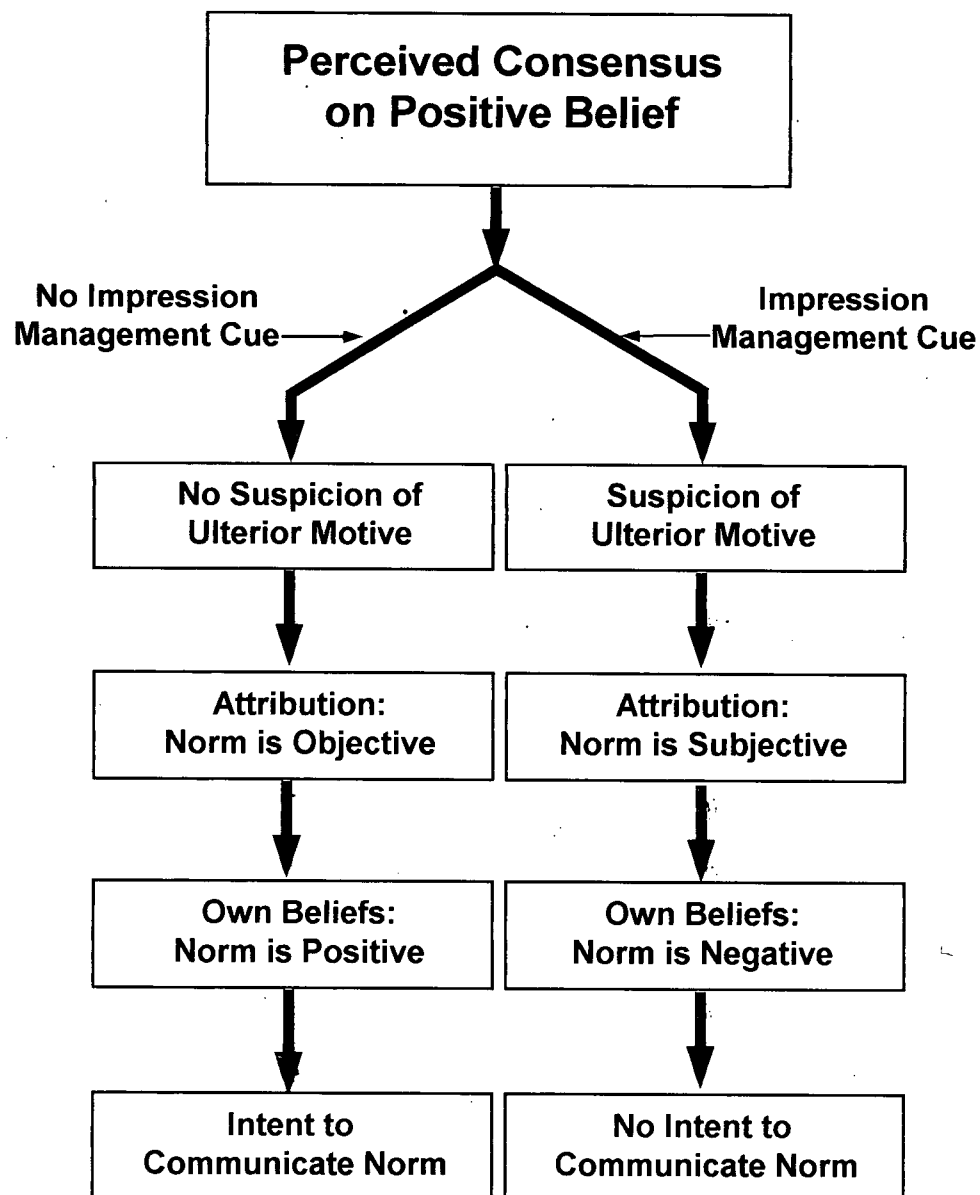
Figure 2.

Of course, sometimes people violate what we would expect them to do -- we have information suggesting that they should act a certain way if they were acting on the basis of some ulterior self-interest, but they act in the opposite way. In this case, evidence suggests that the cue makes us <u>more</u> likely to think that the person who says the norm really means it and also makes us more likely to be persuaded by it (Eagly et al., 1978). Again, the potential applications of this attributional fact to norm acceptance and communication have yet to be fully mined. Consider a situation where it appears persons in a group ought to recognize that negative remarks might make them appear offensive, and yet consensual negative communications occur anyway. In this circumstance, it is expected that people ought to be especially likely to take into account the negative norm. They should think something like "these people are all making themselves look bad -- wow, they must really mean what they say!" Thus, if a negative norm appears in spite of apparent social cues that suggest it <u>should not</u>, it may be especially likely to create an intent to communicate that norm in others. In other words, the impression management cue can serve to augment negative norms and thus increase persons' desire to both accept the norm themselves and to communicate the norm to others.

Conceptual Hypotheses

From these considerations, three conceptual hypotheses were derived.

<u>**Hypothesis 1: A positive norm will cause less intention to communicate that norm to others if people perceive an "impression management" social cue**</u>

during initial norm communication. To the degree that persons think that others are communicating merely not to offend or to present themselves in a positive light, they are expected to largely disregard that communication with respect to their own beliefs. Thus, they are expected, under such conditions, to be less likely to intend to communicate that norm to others, relative to persons who do not perceive the "communicate positively" social cue.

Hypothesis 2: A negative norm will cause more intention to communicate that norm to others if people perceive an "impression management" social cue during initial norm communication. However, to the degree that persons think others are communicating a negative norm in spite of the concern over looking bad, they are expected to especially count that information as truly reflecting reality. Thus, they are expected, under such conditions, to be more likely to intend to communicate the norm themselves to others, relative to persons who do not perceive the "communicate positively" social cue.

Hypothesis 3: The hypothesis 1 and 2 effects will be mediated by attributional processes. It is expected that the effects described in Hypothesis 1 and 2 will be at least partially mediated by whether persons attribute the norm to something subjective (e.g., the presence of an impression management cue or other social influence) versus something objective (e.g., people are communicating the norm because they really believe it to be true) cause.

Overview of Present Methodological Strategy

Studies 1 and 2 tested Hypotheses 1 and 2, respectively. Participants in these

studies read a short story about a group of university friends who are discussing a campus fraternity. In Study 1, they talk positively about the fraternity; in Study 2, negatively. Both studies contained a manipulation pertaining to the degree that an "impression management" cue is likely to be perceived as present: Whether a member of the fraternity was present or absent during this discussion. (An additional control condition was included in which a stranger who was not a fraternity member was present during the discussion). Later in the story, one of the group members was talking to another friend, and participants were asked to complete measures indicating what they would communicate to this other friend about the fraternity if they themselves were in this situation. In order to test Hypothesis 3, participants in both studies also completed measures relevant to their attributions about the normative communication.

Study 1

Overview

Study 1 participants were randomly assigned to read one of three short stories. These stories depicted "Bill," who is a university student spending time with a group of friends. This group of friends talks in a positive manner about a campus fraternity (the actually fictitious "Sigma Sigma Sigma" fraternity). Before they do so, a person is introduced to the group as either a stranger who is a member of the fraternity in question ("Sigma" condition), a stranger who is a member of the university golf club ("Golf Club" condition), or as an already-known member of Bill's circle of friends ("Friend" condition). Later, Bill is talking to another friend about the fraternity. Participants were asked to write what they would say about the fraternity if they were in Bill's situation. Participants

completed measures of stereotype-relevant beliefs as well. In addition, participants

completed free response and 9-point scale items relevant to attributional processes.

Method

<u>Participants</u>

Fifty-one participants from the University of British Columbia participated in the

study for course credit.

<u>Introduction</u>

All participants were verbally introduced to the study in the following manner:

Thank you for coming today. What you'll be doing today is pretty simple:

You'll be reading a short story and answering some questions about one of the

characters in the story. We want you to be especially interested in the main

character of the story -- named Bill. We want you to try and put yourself in Bill's

shoes as you read the story. At the end of the story, you'll be asked to say what

you would do if you were in Bill's situation. So please read the story carefully --

it's a relatively short story, so hopefully you can maintain your focus as you read

it. After answering the questions about the story, we'll give you some other

questionnaires to fill out as well.

<u>Stories</u>

Participants were randomly assigned to read one of three stories designed to

match each of the three conditions. To read these stories in their entirety, please see

Appendix A.

<u>Segment 1: Introduction to Characters</u>. All of the stories described "Bill" and a

group of friends he spends time with. The introduction emphasized how diverse Bill's set of friends is, and how unusual it is for them all to agree on any one topic. The primary goal here was to ensure that the resulting norm cannot be attributed to some commonly-shared background or personality trait.

Segment 2: The Impression Management Cue Manipulation. After this background material, the story focuses on a particular conversation the group had. One of Bill's friends brings up the (actually fictitious) "Sigma Sigma Sigma" fraternity. At this point, in all stories, participants read that Bill has met three members of the Sigma Sigma Sigma fraternity himself, one of whom was intelligent, whereas the other two were aggressive. But they also read that the fraternity has over 100 members, and that three is not really very many members to judge the whole group on.

Before anyone has a chance to comment on the Sigma Sigma Sigma fraternity, another of Bill's friends joins the group -- with someone named "Steve." It is during Steve's introduction to the group that the Impression Management Cue manipulation took place. A third of the participants read that Steve is a stranger who is a member of the Sigma Sigma Sigma fraternity (the "Sigma" condition); one-third read that Steve is a stranger who is a member of the "University Golf Club" (the "Golf Club" condition); the other one-third read that Steve was just a regular member of Bill's circle of friends ("Friend" condition). Thus, some of the participants believed that the ensuing conversation about the Sigma Sigma Sigma fraternity took place in the presence of stranger who was also a member of that fraternity, some believed that it took place in the presence of a stranger who was not a member of the fraternity, whereas some believed that it took place under normal circumstances.

The "Golf Club" condition allows finer distinctions to be made as to the exact locus of any emergent effect of the impression management cue. Because the mere presence of a stranger (whether from the group involved in the ensuing discussion or not) can potentially act as an impression management cue independent of the specific group that the stranger is from, the "Golf Club" condition allows us to disentangle whether any emergent difference between the "Sigma" and "Friend" conditions is due to the presence of a stranger in general, versus the specific presence of a stranger in the fraternity under discussion in the story.

Segment 3: The Positive Norm. In the next segment, the group resumes talking about the Sigma Sigma Sigma fraternity, and all of the members of the group except Bill (the focal character) unanimously endorse the fact that the fraternity contains a lot of smart people. Bill remains silent.

Segment 4: The Conversation. In the last segment, Bill is talking to a friend (named "Pip") who is not a part of his normal clique. In the course of conversation, the Sigma Sigma Sigma fraternity comes up. This set the stage for the dependent measures. (Please see Appendix A to peruse the stories used here in their entirety.)

Dependent and Attribution Measures

Free Response Measures. Immediately after reading these stories, participants were asked to complete three free response questions. The first question was "If you knew what Bill knew and heard what Bill heard, what do you think you would say to Pip about the Sigma Sigma Sigma Fraternity in this situation? Write out a response to Pip." The question was followed by a leading statement: "Pip, I think that the Sigma Sigma

Sigma fraternity is..." This question was used to assess norm perpetuation. The author, while blind to condition, coded each response along a bipolar dimension using a 1-9 scale. These ratings answered the question: "How intelligent does this response suggest the Sigma Sigma Sigma fraternity is?" where 1 = "very dumb," 9 = "very intelligent," and 5 = an equal combination of the two.

The second question, "*Why* would you say the above to Pip about the Sigma Sigma Sigma Fraternity?" was used to assess participants' attributional processes. The author, while blind to condition, coded each response on a bipolar dimension using a 1-9 scale. These ratings answered the question: "How much do persons emphasize attributions to their own experience (versus social influence)?" where 1 = "social influence," 9 = "own experience," and 5 = an equal combination of the two.

The third question, "Why do you think Bill's group of friends all expressed the same opinion toward the Sigma Sigma Sigma fraternity?" assessed norm-relevant attributional processes. The author, while blind to condition, coded each response on a bipolar dimension using a 1-9 scale. These ratings answer the question: "How much is the norm attributed to actual reality (or the real experience of group members) versus social influence (e.g., presence of Steve, group members' influence)?" where 1 = "social influence," 9 = "reality," and 5 = an equal combination of the two.

For each of the above three items, a second trained coder scored a subset of 10 participants for each variable. In addition to being blind to condition, this coder was unaware of the theoretical framework and hypotheses of the present studies. Interrater reliability for questions 1 and 3 above were satisfactory (r's = .80 and 87, respectively). The correlation for the second item was too low for conventional levels of reliability (r =

.51). A discussion of this low reliability will be delayed until after Study 2.

Nine-Point Rating Scales. In addition to these free response questions, other questions (9-point rating scales) assessing both communication intentions and personal beliefs were completed by participants. Some of these questions pertained to participants' likelihood of expressing specific views of the Sigma Sigma Sigma fraternity to Pip: For example, "How likely is it that you would tell Pip that the Sigma Sigma Sigma Fraternity members are really intelligent?" Similar questions were completed relevant to communicating "not very intelligent," "aggressive," "positive," and "negative" impressions of the fraternity. A partially parallel list of questions was completed relevant to participants' private beliefs of the fraternity: For example, "Based on the story, how intelligent do you privately believe that the Sigma Sigma Sigma Fraternity members are?" Similar questions were completed about how "aggressive," "positive," and "negative" their private impressions of the fraternity were.

An additional set of items that pertained to norm-relevant attributional processes also was completed by participants: For example, "Based on the story, to what degree do you think the fact that Bill's group of friends all agreed when they expressed their opinion of the Sigma Sigma Sigma Fraternity is because that's what they really believed?" Similar questions asked participants to what degree they attributed Bill's friends' agreement to the real opinions of group members, Steve's presence, the influence of the other group members, and conformity processes, respectively. All communication, belief, and attribution items are presented in Appendix B.

Results

Creation of Variable Composites

There was a general tendency for the measures of communication intent to be correlated with each other. To create a general summary measure of overall positive communication intent, all six measures of communication intent (one free response intelligence item, two 9-point intelligence items, two 9-point general positivity items, and one 9-point aggressive item), were converted to z-scores, reversed-scored (when necessary) so that higher scores always represented more positive communication intent, and averaged (for these scores, intelligence was always treated as a positive trait and aggressive as a negative trait; see Rothbart & Park, 1986; Schaller & Conway, 1999). This score (alpha = .74) represented the degree that participants reported that they would communicate a positive impression of the Sigma Sigma Sigma fraternity to Pip in the story, and served as the primary dependent measure in the analyses. (Analyses on individual measures are presented in tabular form as well).

Similarly, a "private belief" z-score composite was created from the four different private belief measures (9-point scales representing the amount of intelligence, aggressiveness, and general positivity content). This composite represented the degree that persons reported privately holding a positive impression of the Sigma Sigma Sigma fraternity (alpha = .83).

Lastly, a norm attribution z-score composite was created from the six measures that were relevant to attributions about the stereotype norm. When necessary, items were reverse scored so that higher numbers always meant more perceived norm objectivity. This composite (alpha = .87) represented the degree that persons attributed the agreement of Bill's friends to experiential reasons more likely to be viewed as

objective reality-based (as opposed to less objective reasons like social influence). This attributional composite ("Perceived Norm Objectivity") served as the primary mediator in the mediation analyses.

The free response item concerning attributions about participants' own (as opposed to others') choice was negatively related to the Perceived Norm Objectivity composite, $r(51) = -.35$, $p = .011$. This suggests, unsurprisingly, that the more they felt that the group members were influenced by things of a subjective nature, the more participants relied on their own sense of objective reality to make the decision.

Analytic Strategy

Two parallel sets of analyses are presented below. First, one-way ANOVAs that reveal the omnibus likelihood that differences among any of the three conditions would have emerged due to sampling error are presented. However, the present theoretical framework suggests a more focused planned comparison is warranted as well: It was expected that the largest difference will emerge between the "Sigma" and "Friend" conditions, and as such planned comparisons between just these two conditions will be presented for all measures.

Impression Management Cue Manipulation and Perceived Norm Objectivity

The Impression Management Cue manipulation had its intended effect on attributional processes. This is reflected in the Perceived Norm Objectivity z-score composite: A one-way ANOVA revealed that the mean differences emerging between the three conditions were not likely due to sampling error, $F(2,48) = 7.90$, $p < .001$. A planned comparison between the Sigma and Friend conditions revealed that, as

expected, participants in Sigma conditions reported less objectivity-based attributions ($\underline{M}$ = -.46) than persons in the Friend ($\underline{M}$ = -.08) conditions, $\underline{t}$(31) = 2.11, one-tailed $\underline{p}$ = .022. It should be noted, however, that, somewhat inconsistent with expectations, by far the highest scores on the Perceived Norm Objectivity composite were obtained in the Golf Club condition ($\underline{M}$ = .48). (Please see Table 1.)

Effects of the Impression Management Cue on Communication Intent and Private Beliefs

As can be seen in Table 2, the Impression Management Cue manipulation had its intended effect on communication intent. In most cases, the mean patterns match expectations, although sometimes only weakly: The Friend condition typically has the most positive communication content, followed by the Golf Club, and then the Sigma, conditions. This mean pattern is reflected in the Positive Communication composite (Friend $\underline{M}$ = .13, Golf Club $\underline{M}$ = .07, Sigma $\underline{M}$ = -.21; One-Way ANOVA $\underline{F}$[2,48] = 1.27, $\underline{p}$ = .292; please see Figure 3). The planned comparison between the Sigma and Friend conditions revealed a relatively small likelihood that the difference between these two conditions resulted solely from sampling error ($\underline{t}$[31] = 1.63, one-tailed $\underline{p}$ = .057). This latter effect was particularly strong for the one free-response measure of intelligence-relevant communication content -- which was also the very first dependent measure completed by participants (Sigma $\underline{M}$ = 5.63, Friend $\underline{M}$ = 6.53; $\underline{t}$[31] = 2.56, one-tailed $\underline{p}$ = .008).

Measures of private stereotype-relevant belief revealed a similar but inferentially weaker pattern. Again, the mean patterns generally match expectations, with the Sigma

Figure 3: Impact of the Impression Management Cue on the Intent to Communicate Positively in Study 1
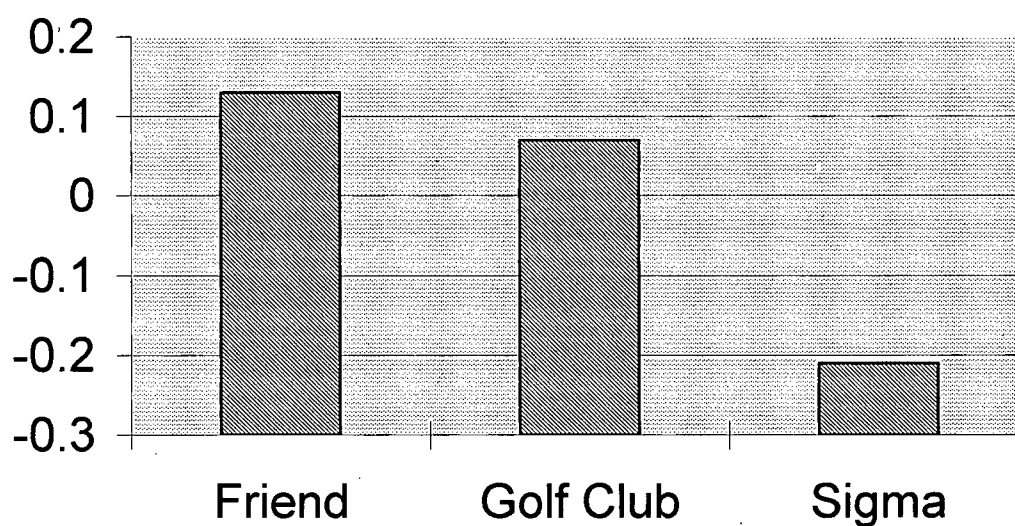
participants being generally less positive than the Friend participants (although the Golf Club condition beliefs are a little more positive than the Friend beliefs), but the likelihood that this emerging mean difference could have resulted from sampling error is larger (compared to the communication composite) for both the omnibus test ($F[2,48]$ =0.33, p = .677) and the planned comparison between the Sigma and Friend conditions ($t[31]$ = 0.65, one-tailed p = .259). Please see Table 2.

Mediation Analyses: The Impact of Perceived Norm Objectivity

For analytic simplicity, mediation analyses focused solely on the two conditions between which the strongest difference was expected and found (the Sigma and Friend conditions; thus, the Golf Club condition was dropped for these analyses). In addition, these analyses focused only on the Positive Communication Intent composite as the main dependent measure. For the two focal conditions, the zero-order correlation between the Impression Management Cue manipulation (coded as 0 = Friend, 1 = Sigma) and the amount of positive communication about the Sigma Sigma Sigma fraternity was r = -.28, one-tailed p = .057. However, when controlling for the Perceived Norm Objectivity composite, this negative relationship was substantially reduced, r = -.13, one-tailed p = .241.

On the other hand, controlling for the Impression Management Cue manipulation did not substantially reduce the size of the relationship between Perceived Norm Objectivity and the intent to communicate positively (zero-order Norm Objectivity-Positive Communication r = .50, p = .003; when controlling for the manipulation, r = .44, p = .011). Thus, while controlling for perceived norm objectivity reduced the predictive

Table 1

Study 1: Impact of Impression Management Cue on Measures of Perceived Norm Objectivity

	Friend	Golf Club	Sigma	ANOVA p	t-test p
Norm Attribution Reality (1)	4.18	5.17	2.44	.002	.006
Norm Attribution Reality (2)	3.71	4.94	2.38	.002	.020
Norm Atr. Reality (Free R.)	3.12	5.22	1.88	.003	.065
Norm Attribution Cue	5.06	4.50	7.88	.001	.001
Norm Attribution Group (1)	7.41	5.39	6.81	.031	.---
Norm Attribution Group (2)	7.00	5.61	6.50	.136	.---
Perceived Norm Object.	**-0.08**	**0.48**	**-0.46**	**.001**	**.022**

Note: n = 51. ANOVA p equals p-value from One-Way ANOVA test of three conditions; t-test p equals the probability from a planned comparison between the Sigma and Friend conditions (n = 33 for these tests). All t-test p's one-tailed; "----" means one-tailed test inappropriate.

Table 2

Study 1: Impact of Impression Management Cue on Dependent Measures

	Friend	Golf Club	Sigma	ANOVA p	t-test p
Intelligent Communication	5.41	5.06	4.81	.705	.191
Unintelligent Communic.	3.35	2.89	3.38	.694	.487
Intell. Com. (Free Res.)	6.53	6.17	5.63	.182	.008
Positive Communication	6.12	5.72	5.25	.397	.089
Negative Communication	3.65	4.17	4.38	.554	.131
Aggressive Communic.	4.88	4.22	5.38	.268	.251
Positive Com. Composite	**0.13**	**0.07**	**-0.21**	**.292**	**.057**
Intelligent Personal	5.24	5.11	4.56	.409	.096
Aggressive Personal	5.24	5.06	5.56	.696	.294
Positive Personal	5.47	5.50	5.06	.600	.180
Negative Personal	4.65	4.39	4.38	.841	.-----
Positive Pers. Composite	**0.04**	**0.09**	**-0.15**	**.677**	**.259**
Intelligent Similarity	5.24	5.39	4.19	.206	.086
Aggressive Similarity	4.18	3.61	3.75	.637	.-----

Note: n = 51. ANOVA p equals p-value from One-Way ANOVA test of three conditions; t-test p equals the probability from a planned comparison between the Sigma and Friend conditions (n = 33 for these tests). All t-test p's one-tailed; "----" means one-tailed test inappropriate.

validity of the manipulation, the reverse was not true. These results are consistent with the notion that attributional processes relevant to the norm partially (although not completely) mediated the relationship between the Impression Management Cue manipulation and the positivity of group-relevant communication.

Similar mediation analyses suggested that participants' attributions about how much their own decisions were tied to objective reality or not (conceptually distinct from their attributions about others' behaviors) also mediated the effect of the manipulation on positive communication. Controlling for the free response item pertaining to attributions about participants' own behaviors reduced the manipulation-positive communication relationship from $r = -.28$ ($p = .057$) to $r = -.10$ ($p = .299$).

Discussion

Study 1 generally offered support for the main conceptual hypothesis: Participants who experienced an emergent positive norm in a situation where an implicit rule existed to communicate positively were less likely themselves to indicate an intention to communicate (when in a different context) the normative positive belief to others. In the language of stereotyping, participants who knew that a member of the positively stereotyped group was present when the stereotype was communicated were more likely to discount that positive stereotype in their private beliefs and (more powerfully) in their subsequent communications to others.

In addition, it appears that the impression management cue's impact on subsequent stereotype-relevant communication requires, not merely that a stranger is present for the discussion, but that a stranger who is a member of the stereotyped group is present. This can be seen in the fact that there is not very much difference in positive

communication between the Friend (no stranger is present) and Golf Club (a stranger is present, but not one who is a member of the stereotyped group) conditions.

These results further suggest that the impact of the impression management cue on the intent to communicate positively about the fraternity can be accounted for, in part, by the expected norm-relevant attributional processes. When controlling for whether persons thought the consensus emerged for objective reasons or not, the effect is substantially reduced. This suggests that part of the reason why persons who experienced a "communicate positively" cue communicated a less positive stereotype is because this cue changed their attributions about why the positive norm existed in the first place; it made them less likely to think that the norm existed for some legitimate reason.

Study 2

Overview

Study 1 provided some initial evidence that impression management cues can, under some circumstances, reduce the likelihood that persons intend to communicate positive norms. But what happens when the norm is negatively valenced, and thus the emergence of the norm violates what is typically expected when an impression management cue is present? Study 2, in answering this question, aims to provide further evidence for the present attributional framework. As discussed in Hypothesis 2, it is expected that when persons perceive a negative norm emerging in the presence of "communicate positively" cue, they will be especially likely to both believe and intend to communicate the negative norm. To test this hypothesis, Study 2 was designed to be

almost identical to Study 1, except that in Study 2 a negative norm ("dumb") is used in place of a positive norm ("intelligent").

Method

<u>Participants</u>

Forty-nine participants from the University of British Columbia participated in the study for course credit.

<u>Procedures</u>

Procedures and materials for Study 2 were nearly identical to Study 1. There was only one major change: In the stories, instead of all agreeing that the Sigma Sigma Sigma fraternity members were really smart as in Study 1, in Study 2 Bill's friends agreed that the Sigma Sigma Sigma guys were dumb. Thus, in the place of a positive norm, Study 2 substitutes a negative norm. One additional minor change was made: Instead of it being explicitly pointed out in the story that only Bill remained silent during the discussion (as in Study 1), in Study 2 it is explicitly noted in the story that both Bill (the focal character) and Steve (the person whose presence is used in the manipulation) remain silent and thus do not endorse the norm. (This change offsets a potential alternative explanation for the present study that participants, if they infer that Steve offered a negative, norm-consistent opinion of the fraternity as well, may place extra weight on a negative opinion implied to be stated by an actual fraternity member). To read these stories in their entirety, please see Appendix A.

All other segments of the story were identical to Study 1. Study 2 also contained the exact same Impression Management Cue manipulation as Study 1, such that

participants received one of three stories to match each of the three conditions. In addition, all dependent and attribution measures were identical to Study 1.

The free response items were coded by the author, blind to condition, in a manner identical to Study 1. For each of these three items, a second trained coder scored a subset of 10 participants. In addition to being blind to condition, this coder was also unaware of the theoretical framework and hypotheses of the present studies. Interrater reliability for questions 2 and 3 were satisfactory (r's = .90 and 82, respectively). Reliability for the first item was a little lower than generally accepted levels of reliability (r = .69). However, considering all reliability indicators across Studies 1 and 2 suggests that each of these three codings were generally fairly reliable.

Results

Creation of Variable Composites

As in Study 1, there was a general tendency for the measures of communication intent to be correlated with each other. To create a general summary measure of overall intent to communicate positively, all six communication measures (one free response intelligence item, two 9-point intelligence items, two 9-point general positivity items, and one 9-point aggressive item) were combined in a manner identical to that reported in Study 1. This "Positive Communication" composite (alpha = .68) again served as the primary dependent measure in the analyses. (Again, analyses on individual measures are presented in tabular form as well).

Similarly, a "private belief" z-score composite was created from the four different private belief measures (alpha = .55) in a manner identical to Study 1.

Lastly, a "Perceived Norm Objectivity" z-score composite was created from the six measures that were relevant to attributions about the stereotype norm. When necessary, items were reverse scored so that higher numbers always meant more perceived norm objectivity. This "Perceived Norm Objectivity" composite (alpha = .79) again served as the primary mediator for the mediation analyses.

Unlike in Study 1, the free response item concerning attributions about participants' own (as opposed to others') choice was largely unrelated to the Perceived Norm Objectivity composite, $r(49) = .05$, $p = .742$.

Impression Management Cue Manipulation and Perceived Norm Objectivity

Unlike in Study 1, in Study 2 the Impression Management Cue manipulation did not have its intended effect on the Perceived Norm Objectivity z-score composite: Participants in Sigma conditions did not exhibit more perceived norm objectivity than participants in Friend conditions. A one-way ANOVA revealed only trivial mean differences across the three conditions, $F(2,46) = 0.23$, $p = .799$. A glance at Table 3 suggests that the mean differences that did emerge were in the opposite direction of expectations. This very weak tendency is summarized by a planned comparison on the z-score composite of these measures: Participants in Sigma conditions generally had less Perceived Norm Objectivity ($M = -.10$) than participants in Friend ($M = .06$) conditions, although there is a relatively high likelihood that this difference resulted from sampling error, $t(30) = 0.61$, two-tailed $p = .546$. The general failure of the manipulation to produce its intended effects on Perceived Norm Objectivity will be addressed in the discussion.

Effects of the Impression Management Cue on Communication Intent and Private Beliefs

As can be seen in Table 4, the Impression Management Cue manipulation's effect on communication intent was, like its effect on Perceived Norm Objectivity, generally the opposite of what was predicted: The Friend condition typically had the most negative communication content, compared to the other two conditions (positive communication composite One-Way ANOVA $F[2,46] = 2.13$, $p = .131$; please see Figure 4). A planned comparison on the Positive Communication composite revealed that the difference between the Sigma ($M = .11$) and Friend ($M = -.26$) conditions is unlikely due solely to sampling error ($t[30] = 1.78$, two-tailed $p = .086$).

Measures of private group-relevant belief revealed a similar but inferentially weaker pattern. Again, the mean patterns are generally the opposite of expectations, with the Friend condition showing the least positive beliefs, the Sigma the highest, and the Golf Club in between (omnibus $F[2,46] =0.61$, $p = .548$; planned comparison between the Sigma and Friend conditions $t[30] = 1.11$, two-tailed $p = .275$). Please see Table 4.

Mediation Analyses: The Impact of Perceived Norm Objectivity

For analytic simplicity, mediation analyses again focused solely on the effect of the manipulation for the two conditions where the largest difference is expected (Sigma and Friend conditions; thus, the Golf Club condition was dropped for these analyses). For these two conditions, the zero-order correlation between the Impression Management Cue manipulation and the intent to communicate positively about the

Figure 4: Impact of Impression Management Cue on the Intent to Communicate Positively in Study 2
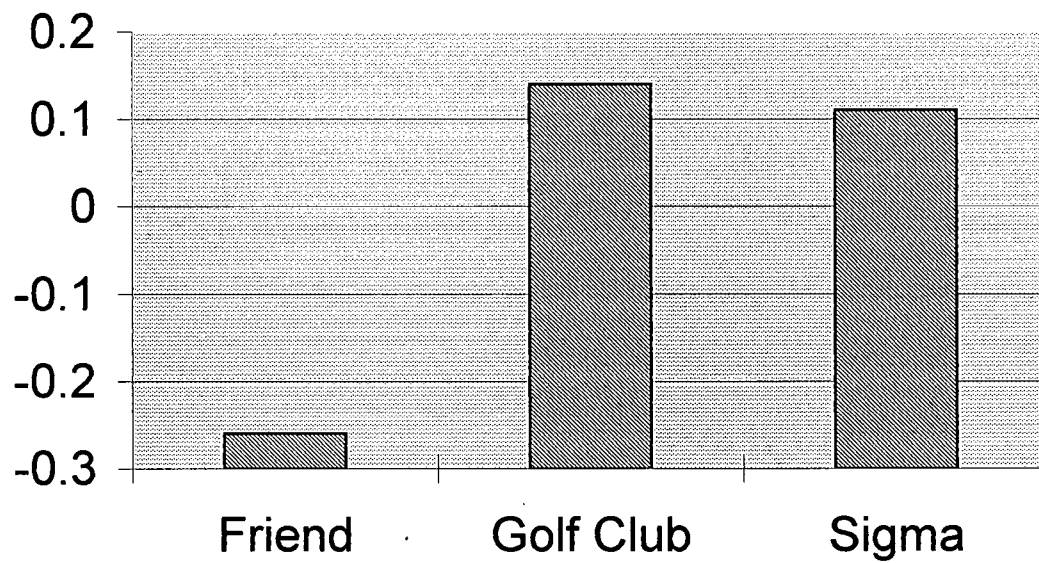
Table 3

Study 2: Impact of Communication Positivity Cue on Measures of Perceived Norm Objectivity

	Friend	Golf Club	Sigma	ANOVA p	t-test p
Norm Attribution Reality (1)	4.87	5.18	3.56	.173	.156
Norm Attribution Reality (2)	4.13	4.41	3.69	.665	.575
Norm Atr. Reality (Free R.)	4.88	3.94	3.31	.288	.114
Norm Attribution Cue	4.00	4.35	3.50	.592	.542
Norm Attribution Group (1)	6.63	6.82	7.06	.814	.509
Norm Attribution Group (2)	6.63	6.06	5.81	.594	.340
Perceived Norm Object.	**0.06**	**0.04**	**-0.10**	**.799**	**.546**

Note: n = 49. ANOVA p equals p-value from One-Way ANOVA test of three conditions; t-test p equals the probability from a planned comparison between the Sigma and Friend conditions (n = 32 for these tests). All t-test p's two-tailed.

Table 4

Study 2: Impact of Communication Positivity Cue on Dependent Measures

	Friend	Golf Club	Sigma	ANOVA p	t-test p
Intelligent Communication	2.75	3.18	3.19	.753	.536
Unintelligent Communic.	5.69	4.41	4.81	.235	.247
Intell. Com. (Free Res.)	3.50	4.29	4.44	.243	.119
Positive Communication	3.56	4.47	4.38	.360	.158
Negative Communication	5.69	4.82	4.88	.501	.301
Aggressive Communic.	4.75	4.18	4.19	.748	.546
Positive Com. Composite	**-0.26**	**0.14**	**0.11**	**.131**	**.086**
Intelligent Personal	4.13	5.12	4.94	.085	.075
Aggressive Personal	5.00	5.53	4.56	.249	.507
Positive Personal	4.38	4.53	4.31	.899	.886
Negative Personal	5.19	5.71	4.88	.434	.635
Positive Pers. Composite	**-0.10**	**-0.04**	**0.14**	**.548**	**.275**
Intelligent Similarity	3.94	4.29	4.31	.859	.641
Aggressive Similarity	3.38	4.29	3.81	.404	.538

Note: $\underline{n}$ = 49. ANOVA $\underline{p}$ equals $\underline{p}$-value from One-Way ANOVA test of three conditions; $\underline{t}$-test $\underline{p}$ equals the probability from a planned comparison between the Sigma and Friend conditions ($\underline{n}$ = 32 for these tests). All $\underline{t}$-test $\underline{p}$'s two-tailed.

Sigma Sigma Sigma stereotype was r = .31, two-tailed p = .086. This relationship remained virtually unchanged when controlling for the Perceived Norm Objectivity composite, r = .29, two-tailed p = .111.

Similarly, controlling for the Impression Management Cue manipulation did not substantially reduce the size of the relationship between perceived norm objectivity and positive communication intent (zero-order Norm Objectivity-Positive Communication r = -.24, p = .192; when controlling for the manipulation, r = -.21, p = .248). On the whole, then, these results offer no support for the notion that perceived norm objectivity mediated the relationship between the Impression Management manipulation and the positivity of group-relevant communication in Study 2.

Similar mediation analyses suggested that participants' attributions about how much their own decisions were tied to objective reality or not (conceptually distinct from their attributions about others' behaviors) more strongly mediated the effect of the manipulation on positive communication. Controlling for the free response item pertaining to attributions about participants' own behaviors reduced the manipulation-positive communication relationship from r = .31 (two-tailed p = .086) to r = .17 (two-tailed p = .371).

Discussion

Study 2 generally offered no support for the main conceptual hypothesis that the impression management cue would cause an <u>increase</u> in the perpetuation of negative stereotypes. Indeed, it explicitly provided evidence of the opposite: Participants who experienced an emergent negative norm in a situation where an implicit rule existed to communicate positively were less likely themselves to indicate an intention to

communicate (when in a different context) the normative negative stereotype to others. Thus, participants who knew that a member of the negatively stereotyped group was present were less likely -- later on -- to communicate a negative view of that group to others.

What is going on here? It may be that the manipulation had an effect that was more general than was anticipated. Having a negative conversation about a group occur in the presence of one of the group's members may trigger a very broad "something unusual (counter-normative) is happening here" heuristic, that in turn leads people to be skeptical about the emerging norm. Thus, rather than causing persons to think "a Sigma Sigma Sigma member is here, thus everyone must really mean all these bad things they are saying about the fraternity," the manipulation may have caused persons instead to think "a Sigma Sigma Sigma member is here, and everyone is talking bad about the group -- wow, that is weird! I better not put a lot of stock in what they are saying because there is something fishy about it." People are not supposed to talk bad about other group members to their faces, and when they do, it may cause us to suspect some ulterior motive that is independent of objective reality.

Of course, this is only post hoc speculation, and should be treated with appropriate caution, especially given that perceived norm objectivity did not mediate the effects of the impression management cue. What is not speculation, however, is that participants displayed a mean pattern on the communication measures suggesting that they were less likely to communicate a negative norm when a member of the negatively-viewed group was present during the initial norm emergence. Whether this effect will hold up in future research, and, if so, exactly what causes it, is still at this point an open

question.

CHAPTER FIVE

Authority Figures' Commands as Cues

Another type of psychological cue that might importantly impact the attributions that people make about norms is the explicit command of an authority figure. When an authority figure tells people to do something, they often do it unquestioningly (see, e.g., Blass, 1991; Cialdini, 1995; Milgram, 1974). This would, on the surface, suggest that an authority figure's directions to engage in an already widely-shared norm would increase norm perpetuation. And indeed, this is almost certainly true some of the time. But before making confident blanket assertions about the impact of an authority figure's commands on norm communication, it may be worth considering the effect that an authority's command can have on the attributional processes of those aware of the command.

At a broad level, observing that an individual is acting under the force of some obvious situational constraint makes me less likely to think that the individual's action is diagnostic of her or his true tastes. Few situational constraints are more obvious than the explicit command of an authority figure; and, indeed, research suggests that the operation of this constraint <u>does</u> cause persons to think that what the target person does or says is not representative of their real opinion. For example, much research in the classic forced opinion paradigm suggests that when a target person is forced to defend a particular side in a debate, observers who are aware of this do not take what they say to be fully representative of their real opinion (e.g., Fein, 1996; Fein et al., 1990). Parallel results from the developmental literature suggest that children of various

ages view choices as less intrinsically motivated when they are commanded by an authority figure (Pryor et al, 1984). Thus, when an authority figure gives an obeyed command to engage in a behavior, it is abundantly clear that this reduces the likelihood that observers will attribute the behavior to the genuine preferences of the actor.

What does this mean with respect to norm acceptance and communication? As previously suggested, when we see lots of other people doing or believing some thing, we are inclined to do or believe the thing ourselves. However, if we become aware that an authority figure has <u>commanded</u> everyone to do or believe that thing, we may be prone to attribute the emergence of the norm to the authority's command instead of the "goodness" or "objectivity" of the norm. Thus, given a norm that is already widely accepted and practiced, an authority's command may cause us to question -- where otherwise we would not have questioned -- the legitimacy of that norm. In other words, the authority figure's command may serve as a discounting cue because it triggers a circumstance -- rather than a stimulus -- attribution for why the consensus exists.

Thus, an authority figure's command is a double-edged sword: Even though it may increase obedience (and thus superficial perpetuation) among people who are forced to obey the authority figure, it also serves to undermine the power of consensus in those same people. They might think "aha, yes, lots of people are all doing this thing, but they are doing it because they were told to -- not because there is any real reason to do so."

However, it is important to note that sometimes we ourselves are under the direct control of the authority figure who gives the command, and sometimes we are not. In either case, the attributional processes concerning the norm ought to remain the same;

whether we are under the authority figure's command or not, we now have a psychological cue that tells us "this norm is emerging because of the authority figure, not for any good reason." But our behavioral responses in these two situations are likely going to be very different. In the first case, we are constrained by forces outside of our own personal view of the norm; no matter what we think of the norm itself, we are likely to simply obey the authority figure. However, in the second case, when we are <u>not</u> under the direct control of the authority figure, this constraint is removed; in a sense, our attributional processes are now free to guide our behavior. And those attributional processes likely suggest that the authority figure's command has decreased the objectivity of the norm. Thus, perceiving an authority figure's command may serve to actually <u>decrease</u> norm acceptance and communication intent among those persons who either never were or are no longer under the direct control of that authority figure.

Of course, it is worth noting that sometimes we trust authority figures as sources of information. For example, evidence from the attitudes/persuasion literature suggests that the <u>expertise</u> of a source is important in increasing the influence that the source's message has (e.g., Eagly, 1983). This fact could have important implications for the present framework. In a sense, when we perceive that people are engaging in a norm largely because of an authority figure's commands, we are moving our focus from the consensus (that we now discount) to the authority figure. Thus, at this point it matters very much what we think of the authority figure as a source of information. If the authority figure is perceived as an expert in a norm-relevant area (say, if a computer expert orders a group of people to buy a certain software package), people may be likely to think "sure, all these people are doing this thing because the authority said, but, hey,

the authority must know a lot about the area, so there is obviously a good reason for the command." Thus, any cue that makes people likely to think the authority is an expert in a norm-relevant area will likely moderate the effect of the authority figure's command on communication intent.

Thus, when social observers see an authority figure give a command that others obey, they are likely to discount the degree that the resulting consensus itself is of informational value. This should be true regardless of direct external constraints (e.g., I am under the authority figure's command myself) or of the authority's credibility. The two proposed moderators ought to exert effects for reasons that essentially override these attributional effects. However, each moderator is anticipated to exert its effects for very different psychological reasons and at different points in the pathway from perceiving the norm to communicating it. Being under the direct control of an authority figure does not (necessarily) change my private beliefs about the norm -- it simply forces compliance with the norm. Thus, it occurs only at the stage of the actor's behavior. However, receiving a command from an expert authority ought to exert its effects because it changes my private beliefs about the norm. Thus the expertise of the authority figure occurs a logical step prior to the behavior itself. Please see Figure 5 for an illustration of the present framework's application to authority figure's commands.

Conceptual Hypotheses

From the above considerations, four conceptual hypotheses were derived.

Hypothesis 1a: Awareness of explicit commands from an authority figure to engage in a norm will increase public norm endorsement among persons who are

Figure 5: Authority Commands and Norm Transmission
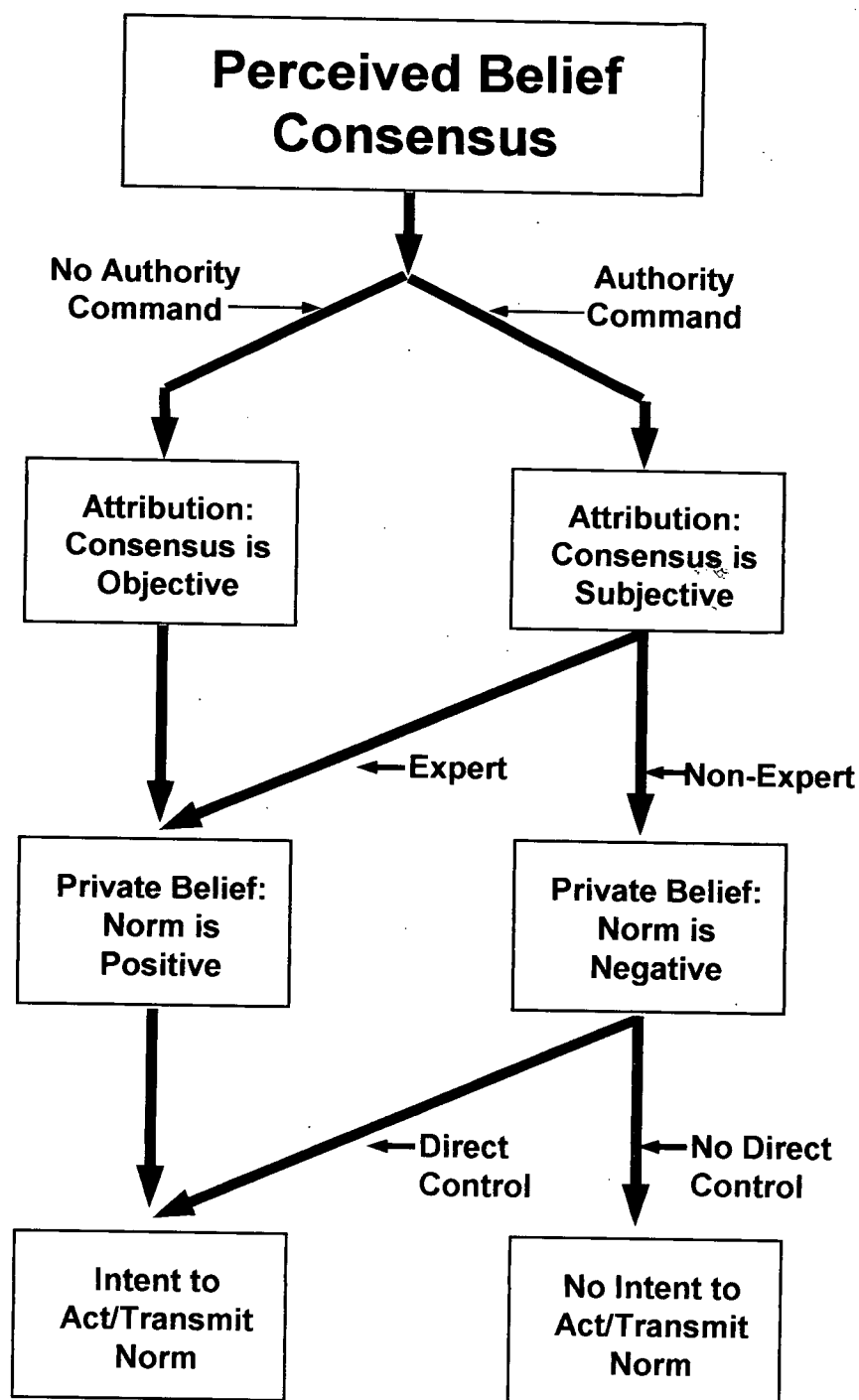
directly under the authority's power. When authority figures tell persons to engage in a norm, it will have the short-term consequence of increasing the likelihood that persons under the direct control of the authority figure will engage in the norm.

Hypothesis 1b: The hypothesis 1a effect will apply only to public expressions of norm endorsement; measures of private beliefs will indicate that an authority figure's commands will decrease the degree that persons believe that the norm is good. Although those who feel that they have to do so may outwardly comply with an authority figure's commands (and thus perpetuate the norm), they are expected to still "factor out" the authority's commands when privately considering how legitimate a norm is. Thus, for private beliefs, a main effect of an authority figure's command should emerge that is not qualified by an interaction with the level of control that the authority figure has.

Hypothesis 2: Awareness of explicit commands from an authority figure to engage in a norm will decrease both public endorsement of the norm and private beliefs about the norm among persons who are not directly under the authority's power. Persons who are not under the authority's power, too, are expected to privately discount the norm when an authority figure commands people to engage in the norm. However, persons who are not under the authority's power are not under the same constraint -- they should not feel as if they "have to" engage in the norm. Thus, although everyone experiencing an authority's command should attribute the norm to that command (rather than to some legitimate objective reality), only persons who are not under the direct control of the authority figure should in turn be less likely to adopt the

norm themselves -- compared to persons who similarly perceive the norm but do not perceive the authority's commands. (Thus, for public expressions, the present perspective predicts an interaction between the level of control an authority figure has and whether or not the authority gives a command to engage in a normative behavior.)

Hypothesis 3: Awareness of explicit commands from an expert authority figure will increase public endorsements of a norm. When the authority figure is an expert, it is anticipated that the Hypothesis 2 pattern will be reversed. Because it is anticipated that people will perceive an expert as offering the norm some special legitimacy, they will take the authority figure's command as an indication of that legitimacy. Thus, they are predicted to be more likely to adopt the norm under such conditions, compared to persons who similarly perceive the norm but do not perceive the authority's commands. Because the expertise heuristic directly influences people's private perceptions, this moderating effect of authority expertise (unlike the moderating effect of the level of authority control) should hold for both private beliefs and public endorsement.

Hypothesis 4: The hypothesis 2 and 3 effects will be mediated by attributional processes. It is expected that the effects described in Hypotheses 2 and 3 will be at least partially mediated by whether persons attribute the norm to a subjective (e.g., authority figure's command or group influence) versus an objective (e.g., people believe the norm because it really reflects something about reality) cause.

Overview of Present Methodological Strategy

In Studies 3 and 4, participants were presented with short stories to read in which

a company has to make a decision between two different computer networking systems. The committee appointed to make the decision unanimously agrees on one of the two systems, thus creating a norm. In an attempt to more directly engage participants, Study 3 and 4 participants were asked to play a role in the story themselves. In both studies, after the norm occurred, the situation of the participant's character changed, and the participant was forced to choose between the two computer systems. Study 3 tested Hypotheses 1a, 1b, and 2 by manipulating two variables within the story: (1) Whether the participant's character in the story remains under the direct authority of the company President or not; and (2) whether the authority (the President) issues an explicit command to vote for the normative system or not. Study 4 also tested Hypotheses 1a, 1b, and 3 by (1) repeating the explicit command manipulation used in Study 2, and (2) adding a manipulation of whether the authority figure is an expert or not. All participants in both Studies 3 and 4 completed measures assessing public norm endorsement and private beliefs about the norm. In order to test Hypothesis 4, participants in both studies also completed measures assessing attribution/perceived norm objectivity.

Study 3

Overview

Study 3 participants were asked to pretend that they were a "Senior Vice President" of a company in one of four stories. In these stories, they were placed on a committee at the company trying to decide between two different computer networking systems. In all stories, all members of the committee (except the participant's character)

voted in favor of one of the systems, called "WobbleNet." Then, in all stories, participants were forced to make a decision between the two systems on their own. Two variables were independently manipulated in these stories. (1) In some stories the President of the company was depicted as attempting to influence the vote by commanding everyone that they should choose WobbleNet ("Explicit Command" condition), whereas in some stories, this vote occurred without an explicit command from the President ("No Explicit Command Condition"). (2) In some stories, the participant gets a new boss near the end of the story -- and thus she/he is no longer under the direct control of the authority figure who gave the command ("Not Under Authority" condition). However, in some stories, the participant's character remains under the direct authority of the same President throughout the story ("Under Authority" condition). Participants were randomly assigned to read one of the 4 stories produced by this 2 X 2 design.

After reading the story, participants answered questions designed to assess which computer system they would choose and their beliefs about the two systems. The system that participants would choose on behalf of the company is here considered "public norm endorsement." This endorsement is analogous to norm communication: Publicly choosing the system for the company implies not only that people within the company would become aware of the participant's choice, but also that all company employees actually are forced to use the system chosen by participants. These "public endorsement" ratings are thus in part a measure of participants' implied intent to communicate the norm. Participants also completed attribution-relevant measures.

Method

Participants

80 undergraduate students from the University of British Columbia participated for course credit.

Introduction

All participants were introduced to the study in the following manner:

Thank you for coming today. What you'll be doing today is pretty simple: You'll be reading a short story and answering some questions about that story. Now we're casting you as the main character in the story; we want you to pretend that you are the Senior Vice President of a company. At the end of the story, you'll be faced with a choice, and you'll be asked to say what you think about that choice. Please read the story carefully; it's a relatively short story so hopefully you can maintain your focus throughout the story. After answering the questions at the end of the story, we'll give you some other questionnaires to fill out as well.

Stories

Participants were randomly assigned to read one of four stories designed to match a 2 (Explicit Command or No Explicit Command) X 2 (Under Authority or Not Under Authority) design. Each story contained five segments, described below.

Segment 1: Cast of Characters. All participants' stories began with a "cast of characters." The "cast" helped define the participant's initial role in the story as Senior Vice President. In addition, the "cast" segment contained a description of the company President, named "President Whim." All participants read that President Whim has demonstrated excellence in a marketing career path -- intentionally chosen to be largely

irrelevant to computer expertise. The "cast" further explicitly states that Whim "doesn't know <u>anything</u> about computers." At a more general level, the President is depicted as an enigmatic and powerful man, who frequently crushes those who cross him. (Please see Appendix C to read the entire "Cast of Characters.")

Segment 2: Preface to the meeting. After reading about the "cast of characters," all participants read a segment of the story titled "preface to the meeting." This segment sets up the context of the story. It contains the following information: (a) it explains that the participant is a part of the committee that will decide which computer system the company will go with, (b) it explains the importance of one particular committee meeting during which the ultimate decision will be made by a simple majority vote; (c) it notes that the participant's character will be the chair of the meeting and will not vote; (d) it explains that limited initial information suggests that one networking system, "WobbleNet," is a tiny bit faster than the other system, "NetHawk," but that NetHawk is much more reliable than WobbleNet.

Segment 3: The Meeting. The next story segment, titled "the meeting," contains the explicit command manipulation. This segment begins with a few introductory remarks about the meeting and then sets the stage for President Whim's speech.

Explicit Command. Participants in the "Explicit Command" condition read the following at that point (underlined phrases are those that differ across conditions):

"Listen, everyone," he began in his deep, rough voice, slowly rolling over each word for emphasis, "<u>it seems clear to me that WobbleNet is the better</u> <u>system; so I think we should go with that. I don't want any disagreement over</u>

this."

After a pause, he looked at you. "You," he said, "will tally the votes, and will only vote if there is a tie. I myself won't be voting due to company policy. Remember, the whole company's future rests in your hands -- I'll be very disappointed if people don't vote <u>for WobbleNet</u>. I think we're ready to begin voting; each of you write your vote silently on these secret ballots."

No Explicit Command. Participants in the "No Explicit Command" condition read the following at that point:

"Listen, everyone," he began in his deep, rough voice, slowly rolling over each word for emphasis, "<u>I don't want to influence the vote; so I'm not even going to tell you what I think. I want each of you to vote exactly what you think</u>."

After a pause, he looked at you. "You," he said, "will tally the votes, and will only vote if there is a tie. I myself won't be voting due to company policy. Remember, the whole company's future rests in your hands -- I'll be very disappointed if people don't vote <u>what they really think</u>. I think we're ready to begin voting; each of you write your vote silently on these secret ballots."

<u>**Segment 4: The Vote**</u>. Segment 4, titled "the vote," depicts everyone at the meeting voting for WobbleNet. (Please see Appendix C.)

<u>**Segment 5: The Phone Call**</u>. The fifth and final segment contained the Under Authority manipulation. In it, the participant's character receives a phone call from President Whim. In all conditions, President Whim discusses changes on the <u>Manifold Company</u> board. The manipulation pertained to whether President Whim remained as

President or moved on to another company.

Under Authority Condition. Participants in the "Under Authority" condition read the following:

> The very next day after the meeting, you were sitting in your office when the phone rang. "This is Whim," said the voice on the other line, "and I wanted to talk to you about a couple of important things. First, there have been a lot of changes on the *Manifold Company* board, which makes a lot of the key decisions around here. Because of this I expect that pretty soon things will be different on the Computer Networking Committee -- since this is important to you I thought I'd let you know. Second, I wanted to remind you that, no matter what these changes on the committee are, I'm still your boss, and you'll be answering to me -- and to no one else -- just like before."

Participants then discovered (two weeks later in the story's time frame) via communication from Whim that the committee's decision was no longer relevant, and that they -- as Vice President and Chair of the Computer Networking Committee -- were expected to choose between the two computer systems entirely on their own.

Not Under Authority Condition. Participants in the "Not Under Authority" condition read the following:

> The very next day after the meeting, you were sitting in your office when the phone rang. "This is Whim," said the voice on the other line, "and I wanted to talk to you about a couple of important things. First, there have been a lot of changes on the *Manifold Company* board, which makes a lot of the key decisions

around here. Because of this I expect that pretty soon things will be different on the Computer Networking Committee -- since this is important to you I thought I'd let you know. Second, I'm taking a job at another company, so you won't be answering to me anymore at all. You'll have a new boss that will step in as President, and you'll be answering to *him* -- and no one else."

As in the Under Authority condition, participants then discovered (two weeks later in the story's time frame) that the committee's decision is no longer relevant, and that they were expected to choose between the two computer systems entirely on their own. However, in the Not Under Authority condition, this news was delivered to them by their new boss, "Kirk Caprice."   (Please see Appendix C.)

Manipulation Check Questions

Immediately after reading the story, all participants completed three forced-choice format questions to ensure that they understood and remembered the key elements of the story. The first question was "In the story, which system did President Whim say he favored?" followed by the possible responses "WobbleNet," "NetHawk," and "Didn't say." The second question was "In the story, which system did the committee vote for?" again followed by the responses "WobbleNet," "NetHawk," and "Didn't say." The third question was "Who was your boss at the end of the story?" followed by the responses "President Whim," "Someone else," and "Didn't say." For each question, participants were asked to circle the correct answer.

Dependent and Attribution Measures

After completing the above manipulation check questions, participants were

asked to circle which system they would choose and to give an explanation of that choice (as well as an explanation of the emergent norm) in two attribution-relevant open-ended questions that were coded for attributional content (see below). Additionally, they were asked to give ratings on 1-9 scales pertaining to their likelihood of choosing the two systems: For example, participants were asked "What is the likelihood that you would choose WobbleNet as the system your company would buy?" Participants were asked a similar question about "NetHawk." Participants were also asked two nine-point scale questions about their private beliefs concerning the two systems: "Based on your own beliefs, what rating would you give the WobbleNet (NetHawk) system on a scale from 1-9?" Lastly, participants were asked a series of nine-point scale questions pertaining to their norm-relevant attributions. For example, "To what degree do you think the unanimous vote in favor of WobbleNet occurred because WobbleNet is, in reality, the better system?" Participants were similarly asked whether they thought the WobbleNet norm emerged because the committee members really believed it was the better system, or (in another question) whether it was because of the influence of President Whim. Please see Appendix C to peruse the questionnaires.

Two different question orders were presented to participants. Half of the participants received the dichotomous forced choice and free response items first (followed by the nine-point rating scales); the other half received the nine-point rating scales first.

Coding of the Free Response Questions. Both of the free response questions were coded by the first author (while blind to condition) for their attribution-relevant content. The first question, "Why would you choose the system you circled in #1?" was

coded on a 9-point bipolar scale anchored on the high end by persons attributing their own choice of systems entirely to some objective properties of the two systems, and on the low end by attributing their choice entirely to other persons' influence (whether the influence of the committee or of President Whim). Scores in the middle indicated some combination of the above factors.

The second question pertained to norm-relevant attributions: "Why do you think the committee members all voted for WobbleNet?" This question was similarly coded on a bipolar scale: The highest score signaled that the committee had voted for WobbleNet because they really believed it was the better system (or were otherwise basing their decision on properties of the two systems), and the lowest score signaled that the committee had voted for WobbleNet because of pressure from either President Whim or other committee members. Scores in the middle indicated some combination of the above factors.

For each of the above two items, a second trained coder scored a subset of 10 participants. In addition to being blind to condition, this coder was also unaware of the theoretical framework and hypotheses of the present studies. Interrater reliability for each of these items was nearly perfect (r's = 1.00 and .96, respectively).

Results

<u>**Creation of Variable Composites**</u>

On the nine-point scale measures, the degree that persons said they would be likely to choose "WobbleNet" and the degree that they would choose "NetHawk" were strongly negatively related (r = -.82). Thus, these two scores were converted to a single

composite by subtracting the "NetHawk" score from the "WobbleNet" score (five points were added to every score in order to make all the numbers positive). The resulting score suggests how much persons said they were likely to choose "WobbleNet" over "NetHawk." Scores greater than five mean that persons were more likely to choose "WobbleNet" than "NetHawk"; scores less than five mean that persons were more likely to choose "NetHawk." This composite "WobbleNet Endorsement Rating" represented the degree that participants expressed an intent to publicly endorse the normative system, and served as the primary dependent measure for the analyses. (Note: the "personal belief" ratings of "WobbleNet" and "NetHawk" were only mildly negatively correlated, r = -.16, and so were analyzed separately).

The four scores pertaining to attributions about the committee's vote (three nine-point rating scales and one coded free-response item) were all highly correlated with each other (absolute values of r's ranged from .58 to .78). Thus, a single composite was computed by re-coding one item so that it was in the same direction as the other three, converting all items to z-scores, and then taking the average of the four items. The resulting score represents the degree that participants attributed the observed consensual behavior to some tie that the behavior had to objective reality, versus the subjective influence of President Whim or the other committee members (alpha = .89). This "Perceived Norm Objectivity" score served as the primary mediator for the mediation analyses.

The free response item concerning attributions about participants' own (as opposed to others') choice was negatively related to the Perceived Norm Objectivity composite, $r(79)$ = -.31, p = .005. This, like Study 1, suggests that the more they felt

that the group was influenced by things of a subjective nature, the more participants

relied on their own sense of objective reality to make the decision.

Manipulation Checks

Analyses revealed that the manipulations had their intended effects. All but 1 of

the eighty participants (99%) correctly identified that the committee had voted for

WobbleNet. 100% of participants in the Explicit Command condition correctly identified

that Whim explicitly supported WobbleNet, whereas 0% of the No Explicit Command

participants did so (although two of the No Explicit Command participants incorrectly

chose that Whim had supported "NetHawk"). 93% of participants in the Under Authority

condition correctly identified that Whim was still their boss at the end of the story,

whereas 0% of the Not Under Authority participants did so.

Effects of Question Order

Analyses within a 2 (Explicit Command or No Explicit Command) X 2 (Under

Authority or Not Under Authority) X 2 (Question Order: Nine-Point Scales First or

Second) ANOVA design suggested that Question Order did not exhibit any strong main

or interaction effects for Perceived Norm Objectivity (all F's < 2.0, all p's > .164), the

WobbleNet Endorsement composite (all F's < 0.9), or the private belief measures (all F's

< 1.46). On the forced choice score, two two-way interactions were suggested for Scale

Order X Under Authority (p = .012) and Scale Order X Explicit Command (p = .106).

However, because on the whole Question Order did not impact the results in a powerful

or clearly interpretable way, Question Order was dropped for all reports of subsequent

analyses. (Adding Question Order into the following analyses changes those inferential

results only minimally).

Perceived Norm Objectivity

The Explicit Command manipulation had its intended effect on the Perceived Norm Objectivity z-score composite. Analyses within a 2 (Explicit Command or No Explicit Command) X 2 (Under Authority or Not Under Authority) ANOVA design revealed that participants in the Explicit Command condition believed that the norm was less grounded in objective reality (M = -.63) than did No Explicit Command participants (M = .61), $F(1,75)$ = 82.10, p < .001. Neither an Under Authority main effect nor an Explicit Command X Under Authority interaction was expected on Perceived Norm Objectivity, and neither emerged (all F's < 0.7, all p's > .400). Please see Table 5.

Primary Analyses: Effects of Manipulations on WobbleNet Endorsement

Primary analyses were performed within a 2 (Explicit Command or No Explicit Command) X 2 (Under Authority or Not Under Authority) design. These analyses yielded a main effect for the Explicit Command condition on the WobbleNet Endorsement Rating: Participants in the Explicit Command condition endorsed the WobbleNet norm less than No Explicit Command participants, $F(1,76)$ = 4.96, p = .029. However, this main effect was qualified by the predicted Explicit Command X Under Authority interaction: Whereas a sizeable difference emerged between No Explicit Command (M = 5.80) and Explicit Command (M = 2.15) participants in the Not Under Authority condition, these same means were nearly identical in the Under Authority condition (No Explicit Command M = 4.75; Explicit Command M = 4.55), interaction $F(1,76)$ = 3.98, p = .050. (Please see Figure 6). Note that this p-value refers to any

Figure 6: "WobbleNet" Norm Endorsement in Study 3

Legend:
- □ No Explicit Command
- ▨ Explicit Command

X-axis categories: Not Under Auth., Under Auth.
Y-axis: 0 to 6
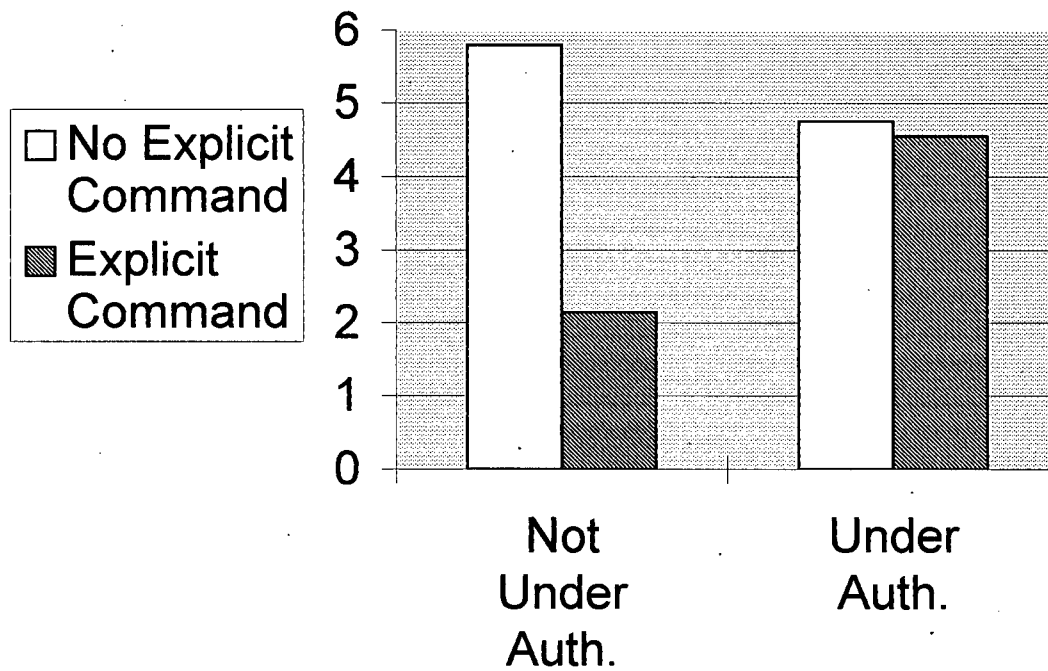
Table 5

Study 3: Under Authority X Explicit Command Interactions

| | Under Authority: | | Not Under Authority: | | Command | Inter. |
	No Command	Command	No Command	Command	p	p
WobbleNet Likelihood	5.20	5.40	5.75	3.80	.049	.016
NetHawk Likelihood	5.45	5.85	4.95	6.65	.029	.171
WobbleNet Endorsement	**4.75**	**4.55**	**5.80**	**2.15**	**.029**	**.050**
WobbleNet Forced Choice	0.45	0.45	0.45	0.30	.505	.505
WobbleNet Personal	5.30	5.00	5.85	5.05	.139	.499
NetHawk Personal	6.80	6.75	6.45	6.95	.394	.298
Reality Attribution (1)	4.58	2.25	5.30	2.55	.000	.639
Reality Attribution (2)	5.75	3.05	5.40	2.95	.000	.792
Reality Attribution (Free R.)	6.10	2.25	6.80	1.90	.000	.343
Whim Attribution	3.80	7.90	3.05	8.25	.000	.196
Perceived Norm Object.	**0.51**	**-0.61**	**0.71**	**-0.64**	**.000**	**.406**

Note: $\underline{n}$ = 80. "Command $\underline{p}$" equals probability that main effect for the Explicit Command manipulation would have emerged due to sampling error. (For perceived norm objectivity and personal belief measures, the likelihood that sampling error can account for this main effect in the predicted direction is half the reported value.) "Inter. $\underline{p}$" equals probability that an interaction between the Explicit Command and Under Authority manipulations would have emerged due to sampling error. (For norm endorsement measures, the likelihood that sampling error can account for the interaction in the predicted direction is half the reported value.) "Command" = Explicit Command conditions; "No Command" = No Explicit Command.

interaction; the likelihood that sampling error alone would have produced the specific interaction predicted by the present theoretical framework (and observed here) is lower, $p = .025$. No main effect for the Under Authority manipulation emerged ($F < 0.61$).

A similar but inferentially unimpressive pattern emerged on the dichotomous, forced-choice judgment of norm endorsement. Whereas the No Explicit Command (45%) and Explicit Command (30%) conditions differed in the percentage of participants who endorsed WobbleNet over NetHawk in the Not Under Authority condition, these same percentages were identical in the Under Authority condition (both 45%). However, this interaction was not inferentially compelling, $F(1,76) = .45$, $p = .505$.

On the whole, then, when no longer under Whim's authority, his prior command to "choose WobbleNet" caused participants to pick WobbleNet <u>less</u> than they did when he gave no command. However, when participants were still under the authority of President Whim, his prior command to "choose WobbleNet" did not cause participants to endorse WobbleNet either more or less than NetHawk.

Private Beliefs

Analyses of participants' personal beliefs concerning WobbleNet and NetHawk yielded generally weaker effects than did the WobbleNet endorsement measure. The "WobbleNet" personal belief measure yielded a weak main effect for Explicit Command in the predicted direction: Persons were more likely to report that they thought WobbleNet was a good system in No Explicit Command ($M = 5.58$) than in Explicit Command ($M = 5.03$) conditions; $F(1,76) = 2.24$, $p = .139$. Note that this p-value refers to an effect in <u>either</u> direction; the likelihood that sampling error alone would have produced an effect in the predicted direction is closer to conventional levels of

significance, p = .070. A directionally similar but weaker effect occurred for personal belief ratings of NetHawk, $F(1,76)$ = 0.73, p = .394 (directional p = .197). No Explicit Command X Under Authority interactions were expected on measures of personal beliefs in the present Study, and, although the mean patterns suggested interactions in the same direction as the public endorsement composite, these interactions were inferentially weak, both F's < 1.1 (please see Table 5). No main effect for the Under Authority manipulation emerged on either measure, both F's < .70

Mediation Analyses: The Impact of Perceived Norm Objectivity

Because, for the WobbleNet Endorsement measure, attributional processes were expected to mediate the effect only within the Not Under Authority condition, mediation analyses focused solely on the effect of the Explicit Command manipulation for those participants who were no longer under Whim's authority at the end of the story. Within this condition, the zero-order correlation between the Explicit Command manipulation (coded as 0 = no command, 1 = command) and public endorsements of WobbleNet was -.43, two-tailed p = .005. However, when controlling for the Perceived Norm Objectivity composite, this negative relationship was completely wiped out -- indeed, it was somewhat reversed, r = .26, two-tailed p = .106.

On the other hand, partial correlations between Perceived Norm Objectivity and WobbleNet Endorsement revealed that the Norm Objectivity-WobbleNet Endorsement relationship remained very high even when controlling for the Explicit Command Manipulation (zero-order r = .71, p < .001; partial r = .65, p < .001). Thus, while controlling for perceived norm objectivity completely wiped out the predictive validity of the manipulation, the reverse was not true. These results are consistent with the notion

that perceived norm objectivity mediated the impact that the Explicit Command manipulation had on norm endorsement.

No evidence emerged that participants' attributions about their own behavior mediated the effect of the manipulation on norm endorsement: When controlling for how grounded in objective reality participants perceived their own choice to be, the Explicit Command-WobbleNet Endorsement correlation remained virtually unchanged, r = -.42, p = .008.

Discussion

Study 3 offered support for the major hypothesis: The explicit command of an authority figure <u>can</u> lead to less norm endorsement. When participants were no longer under the authority of the President at the end of the story, his prior command to "vote WobbleNet" actually backfired. Further, mediation analyses suggested that the reason <u>why</u> his command reduced norm endorsement was that it changed participants' attributions about the emergent "WobbleNet" norm: When the President gave the command to vote for WobbleNet, participants now believed that the norm emerged for some less-than-objective reason.

(Of course, controlling for perceived norm objectivity actually <u>reversed</u> the effect of the President's command; the meaning of the reversal will be addressed after examining the results from Study 4. However, the important point here is that the effect of the explicit command manipulation on norm endorsement was completely eradicated when controlling for perceived norm objectivity.)

As expected, the effect of the authority figure's command was moderated by the level of control that the authority had over the participant's character in the story. When

participants were no longer under the control of the authority, his prior command caused less norm endorsement; however, when participants were still under his control at the end of the story, his prior command had virtually no effect on norm endorsement. Although this clearly suggests that the authority figure's level of control moderates the effect, it is worth asking: Why did the authority figure's command not increase norm endorsement when participants were still under his authority -- and presumably ought to obey?

There may be multiple reasons. First, it could be that the impact of changes in attributional processes are so pervasive that they can partially override general tendencies to obey authority. Although this reason is appealing from the vantage point of the present theoretical framework, years of successful obedience research suggest that the simple command of an accepted authority is an extremely powerful thing -- and thus makes this interpretation somewhat untenable. More plausible, however, is a second explanation: Because this is a simulation study, participants may simply have underestimated how powerful the command of a real authority figure might be in those circumstances. After all, it is hard to convey in a pen-and-paper scenario how influential real authority figures are in everyday life.

A more substantial theoretical consideration may also have contributed to the watering down of the "obedience to authority" effect as well. Although everyone in the Explicit Command condition was told by the President to vote WobbleNet during the committee meeting, participants in the study were not themselves directly commanded at the end of the story to pick WobbleNet (they were, in fact, told it is up to them to choose). Thus, there may be more psychological "distance" between the command and

the actual decision than is typically present in real obedience studies. Whatever the case, for our purposes it is clear that, as expected, the level of control that an authority figure has over the participant moderated the somewhat counterintuitive reduction in norm endorsement that his command caused. Thus, although the present study clearly suggests that authority figures' commands to engage in a norm can reduce norm endorsement, it places clear (and expected) limits on the situations when this will likely occur.

Study 4

Overview

Study 3 provided some initial evidence for the attributional framework with respect to authority cues: When people were no longer under the direct control of the authority figure at the end of the story, his prior command to engage in a normative behavior actually reduced the likelihood of that behavior. But, in Study 3, it was explicitly pointed out to participants that the authority figure (the President) was not knowledgeable about the normative behavior (computer networking systems). What would happen if the President was an expert in computer networking? Drawing on Hypothesis 3 of the present theoretical framework, Study 4 attempted to help answer this question by replicating and extending the results of Study 3. Like Study 3, Study 4 included an Explicit Command manipulation. However, instead of an Under Authority manipulation, Study 4 included a manipulation of whether or not the authority figure was an expert in computers ("Expert" manipulation). All participants in Study 4 were placed in the "Not Under Authority" condition used in Study 3. In addition, because question

order did not bear much on the results of Study 3, all participants in Study 4 received the same question order, with the dichotomous forced choice and free response measures coming first.

In accord with Hypothesis 3, it was expected that the Expert manipulation would moderate the effects of the Explicit Command manipulation: Whereas a non-expert authority's command should reduce norm endorsement (as in Study 3), an expert authority's command should increase norm endorsement. Further, the moderating effect of the Expert manipulation was expected to occur for both public norm endorsement and private beliefs.

Method

Participants

92 undergraduate students from the University of British Columbia participated for course credit.

Procedures and Stories

Participants were randomly assigned to read one of four stories designed to match a 2 (Explicit Command or No Explicit Command) X 2 (Expert or Non-Expert) design. They were introduced to the stories in a manner identical to Study 3. Each story contained five segments, described below.

Segment 1: Cast of Characters. As in Study 3, all participants' stories began with a "cast of characters" that helped define the participant's initial role in the story as Senior Vice President. In addition, in Study 4 the "cast" segment contained the Expert manipulation in the description of the President. Some participants read that the

President had demonstrated excellence in a commerce/marketing career path, whereas others read that he had demonstrated excellence in computers:

<u>President Maximillian Whim:</u>

Whim's the head guy -- ultimately, the decisions in the company are his. He has a Bachelor's degree in <u>Computer Science/Commerce</u> and a Master's degree in <u>Computer Networking/Marketing</u>.

When Whim has a computer science background, he is further described as someone who "knows <u>a whole lot</u> about computers;" when he has a Marketing background, he is described as someone who "doesn't know <u>anything</u> about computers." (Please see Appendix C to read the entire "Cast of Characters.")

Segments 2-4. Segments 2-4 were identical in every respect to Segments 2-4 used in Study 3. As in Study 3, Segment 3 contained the Explicit Command manipulation. Half of the participants read that President Whim commanded committee members to vote for "WobbleNet;" the other half read that he encouraged them to vote how they really felt.

Segment 5. In Study 4, all participants received the same scenario for Segment 5. This scenario was identical to the "Not Under Authority" condition used in Segment 5 for Study 3.

<u>**Manipulation Check Questions**</u>

Immediately after reading the story, all participants completed four forced-choice format questions to ensure that they understood and remembered the key elements of the story. The first question was "In the story, how much does President Whim know

about computers?" followed by possible responses "A whole lot," "Very little," and "Didn't say." The second question was "In the story, which system did President Whim say he favored?" followed by the possible responses "WobbleNet," "NetHawk," and "Didn't say." The third question was "In the story, which system did the committee vote for?" again followed by the responses "WobbleNet," "NetHawk," and "Didn't say." The fourth question was "Who was your boss at the end of the story?" followed by the responses "President Whim," "Someone else," and "Didn't say." For each question, participants were asked to circle the correct answer.

Dependent and Attribution Measures

All dependent and attribution measures were identical to those used in Study 3. All free response measures were also coded in a fashion identical to Study 3.

As before, for the free response items, a second trained coder scored a subset of 10 participants. Again, in addition to being blind to condition, this coder was also unaware of the theoretical framework and hypotheses of the present studies. Interrater reliability for each of these items was nearly perfect (r's = 1.00 and .98, respectively).

Results

Creation of Variable Composites

As in Study 3, on the nine-point scale measures, the degree that persons said they would be likely to choose "WobbleNet" and the degree that they would choose "NetHawk" were strongly negatively related (r = -.85). Thus, these two scores were converted to a single "WobbleNet Endorsement Rating" composite in a manner identical to that used in Study 3. (Note: As in Study 3, the "personal belief" ratings of

"WobbleNet" and "NetHawk" were only mildly negatively correlated, $r = -.09$, and so were analyzed separately).

The four scores pertaining to attributions about the committee's vote (three nine-point rating scales and one coded free response item) were all highly correlated with each other (absolute values of r's range from .60 to .78). Thus, a single composite was computed by re-coding one item so that it was in the same direction as the other three, converting all items to z-scores, and then taking the average of the four items. The resulting score represents the degree that participants attributed the observed consensual behavior to some tie that the behavior had to objective reality, versus the subjective influence of President Whim or the other committee members (alpha = .89). This "Perceived Norm Objectivity" score served as the primary mediator for the mediation analyses.

Also as in Study 3, the free response item concerning attributions about participants' own choice was negatively related to the Perceived Norm Objectivity composite, $r(92) = -.66$, $p < .001$. This again suggests that the more they felt that the committee was influenced by things of a subjective nature, the more participants relied on their own sense of objective reality to make the decision.

Manipulation Checks

Analyses revealed that the manipulations had their intended effects. 100% of the participants correctly identified that the committee had voted for WobbleNet, and 100% of participants also correctly identified that Whim was no longer their boss at the end of the story. 96% of participants in the Explicit Command condition correctly identified that Whim explicitly supported WobbleNet, while 4% of No Explicit Command participants did

so (although one additional person in the No Explicit Command condition incorrectly chose that Whim had supported "NetHawk"). 91% of participants in the Expert Authority condition correctly identified that Whim knew "a whole lot" about computers, while 0% of the Non-Expert Authority participants did so.

Perceived Norm Objectivity

The Explicit Command manipulation had its intended effect on the Perceived Norm Objectivity z-score composite. Analyses within a 2 (Explicit Command or No Explicit Command) X 2 (Under Authority or Not Under Authority) ANOVA design revealed that participants in the Explicit Command condition believed that the norm was less grounded in objective reality (M = -.61) than did No Explicit Command participants (M = .61), $F(1,88)$ = 88.88, p < .001. No other strong main or interaction effects emerged on Perceived Norm Objectivity, all F's < 1.8, all p's > .190. Please see Table 6.

Primary Analyses: Effects of Manipulations on WobbleNet Endorsement

Primary analyses were performed within a 2 (Explicit Command or No Explicit Command) X 2 (Expert or Non-Expert Authority) ANOVA design. These analyses yielded a main effect for the Explicit Command condition on the WobbleNet Endorsement Rating: Participants in the Explicit Command condition perpetuated the WobbleNet norm less than No Explicit Command participants, $F(1,88)$ = 13.88, p < .001. An inferentially weaker main effect also emerged for the Expert condition, such that Expert participants had higher scores than Non-Expert participants on the WobbleNet Endorsement Rating, $F(1,88)$ = 2.17, p = .144. However, these main effects were

qualified by the predicted Explicit Command X Expert interaction: Whereas a sizeable difference emerged between No Explicit Command ($\underline{M}$ = 5.35) and Explicit Command ($\underline{M}$ = 0.83) participants in the Non-Expert Authority condition, this effect was weaker in the Expert Authority condition (No Explicit Command $\underline{M}$ = 5.04; Explicit Command $\underline{M}$ = 3.52), interaction $\underline{F}(1,88)$ = 3.42, $\underline{p}$ = .068. (Please see Figure 7). Note that this $\underline{p}$-value refers to any interaction; the likelihood that sampling error alone would have produced the specific interaction predicted by the present theoretical framework (and observed here) is lower, $\underline{p}$ = .034.

A similar but inferentially unimpressive pattern emerged on the dichotomous, forced-choice judgment of norm endorsement. Whereas the No Explicit Command (57%) and Explicit Command (9%) conditions differed a great deal in the percentage of participants who endorsed WobbleNet over NetHawk in the Non-Expert Authority condition, this effect was smaller in the Expert Authority condition (No Explicit Command = 61%; Explicit Command = 30%), interaction $\underline{F}(1,88)$ = .859, $\underline{p}$ = .357.

On the whole, then, when President Whim was not an expert in computers, his prior command to "choose WobbleNet" greatly decreased the amount that participants chose WobbleNet. This effect was somewhat less strong when President Whim was an expert in computers.

Private Beliefs

As in Study 3, analyses of participants' personal beliefs concerning WobbleNet and NetHawk yielded generally weaker effects than did the WobbleNet endorsement measure. The "WobbleNet" personal belief measure again yielded a weak main effect for the Explicit Command manipulation: Participants were more likely to report that they

Figure 7: "WobbleNet" Norm Endorsement in Study 4
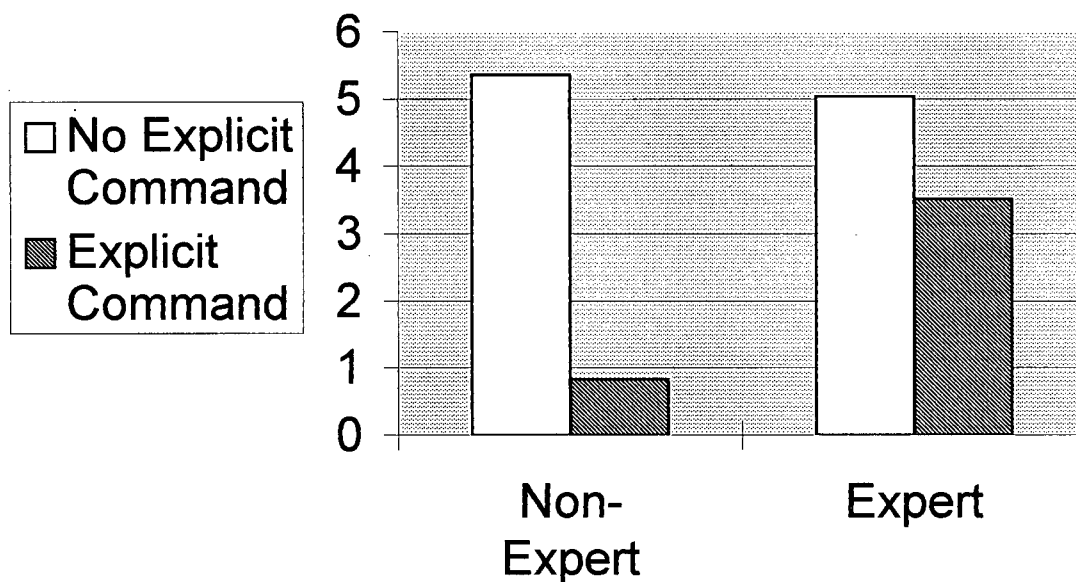
Table 6

Study 4: Expert X Explicit Command Interactions

| | Expert: | | Non-Expert: | | Command | Inter. |
	No Command	Command	No Command	Command	p	p
WobbleNet Likelihood	5.57	4.70	5.43	3.39	.001	.170
NetHawk Likelihood	5.52	6.17	5.09	7.57	.000	.034
WobbleNet Endorsement	**5.04**	**3.52**	**5.35**	**0.83**	**.000**	**.068**
WobbleNet Forced Choice	0.61	0.30	0.57	0.09	.000	.357
WobbleNet Personal	5.70	5.39	5.48	4.96	.180	.723
NetHawk Personal	6.48	6.70	6.35	7.09	.070	.320
Reality Attribution (1)	5.30	3.22	5.04	2.17	.000	.340
Reality Attribution (2)	5.87	3.39	5.48	2.78	.000	.788
Reality Attribution (Free R.)	6.96	1.91	6.09	2.09	.000	.327
Whim Attribution	4.26	8.00	4.70	8.00	.000	.580
Perceived Norm Object.	**0.70**	**-0.53**	**0.52**	**-0.69**	**.000**	**.964**

Note: n = 92. "Command p" equals probability that main effect for the Explicit Command manipulation would have emerged due to sampling error. (For perceived norm objectivity and personal belief measures, the likelihood that sampling error can account for this main effect in the predicted direction is half the reported value.) "Inter. p" equals probability that an interaction between the Explicit Command and Under Authority manipulations would have emerged due to sampling error. (For norm endorsement and personal belief measures, the likelihood that sampling error can account for the interaction in the predicted direction is half the reported value.) "Command" = Explicit Command conditions; "No Command" = No Explicit Command.

thought WobbleNet was a good system in No Explicit Command ($\underline{M}$ = 5.59) than in Explicit Command ($\underline{M}$ = 5.17) conditions; $\underline{F}$(1,88) = 1.82, $\underline{p}$ = .180. In addition, a directionally similar but slightly stronger effect occurred for personal belief ratings of NetHawk: Participants were less likely to report that they thought NetHawk was a good system in No Explicit Command ($\underline{M}$ = 6.41) than in Explicit Command ($\underline{M}$ = 6.89) conditions, $\underline{F}$(1,88) = 3.36, $\underline{p}$ = .070. However, although the Explicit Command X Expert interactions were in the predicted direction, they were inferentially trivial, $\underline{F}$'s < 1.1, $\underline{p}$'s > .310 (please see Table 6). No main effects emerged for the Expert manipulation, $\underline{F}$'s < 1.2, $\underline{p}$'s > .280.

Mediation Analyses: The Impact of Perceived Norm Objectivity

Because, for the WobbleNet Endorsement measure, attributional processes were expected to mediate the effect only within the Non-Expert condition, mediation analyses focused solely on the effect of the Explicit Command manipulation for those participants who read about a non-expert President Whim. Within this condition, the zero-order correlation between the Explicit Command manipulation (coded as 0 = no command, 1 = command) and public endorsement of WobbleNet was -.55, two-tailed $\underline{p}$ < .001. However, when controlling for the Perceived Norm Objectivity composite, this negative relationship was substantially reduced, $\underline{r}$ = -.20, two-tailed $\underline{p}$ = .196.[4]

Partial correlations between Perceived Norm Objectivity and WobbleNet

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4. Sobel (1982) provides an approximate test of the likelihood that the reduction in an effect when accounting for a mediator is due to sampling error. However, this method is cumbersome to compute and only offers dichotomous tests of whether or not the reduction meets some inferential cut-off point. In addition, Sobel validated his method on an extremely large sample ($\underline{N}$ > 3,000) and noted that the method may be inappropriate for use with small samples. As a result of these inexactitudes, this method could give misleading impressions as to the inferential status of the overall importance of the mediator to the effect. Indeed, the overall pattern of results across those studies that obtained the predicted effects (1, 3, and 4) suggests that the effect of the manipulations in these studies was partially due to perceived norm objectivity. As no inferential tests are required to make this statement, and given the difficulties with Sobel's method, Sobel's inferential approach was not used in the present thesis.

Endorsement revealed that the Norm Objectivity-WobbleNet Endorsement relationship was reduced somewhat when controlling for the Explicit Command Manipulation (zero-order r = .61, p < .001; partial r = .35, p = .020).

There was some evidence in Study 4 that participants' attributions about their own behavior mediated the effect of the manipulation on norm endorsement, although this mediation did not appear to be as strong as when accounting for norm-relevant attributions. When controlling for how grounded in objective reality participants perceived their own choice to be, the Explicit Command-WobbleNet Endorsement correlation was reduced from r = -.55 (p < .001) to r = -.34 (p = .024).

Discussion

Authority Commands and Perceived Norm Objectivity

Study 4 replicated and extended the results of Study 3. As in Study 3, in Study 4 the explicit command of the President to "vote WobbleNet" decreased the likelihood that participants would, in fact, choose WobbleNet. Also, this effect was again mediated by norm-relevant attributions, although this time not as strongly. (The lack of replication of the effect reversal when controlling for norm objectivity suggests that the reversal -- although not the mediation -- in Study 3 was likely due to chance). Taken together, the two studies provide a strong case for the importance of perceived norm objectivity to the effect. This direct replication of both the effect and its mediation is important -- it further suggests that the results obtained in Study 3 are not the result of sampling error.

Study 4 also suggests that the effect of the authority figure's command on norm endorsement is moderated by the level of expertise of the authority figure. When the

President was an expert in computers, the reduction of norm endorsement that his command caused was smaller -- although it was not reversed as expected. Why was the reversal not obtained in this case? Here the reasons are not as easy to pinpoint. It may be that the norm-relevant attributional processes generated by an authority's command are simply more powerful psychologically than those processes associated with the "expert" heuristic; thus, undermining the power of consensus may be more important than expertise. Of course, it would be imprudent to draw such a conclusion at a general level based on one study, because so many things besides the real-world power of a psychological process influence the relative strength of manipulations in a specific study. It could be, as is almost certainly the case with obedience, that the expert manipulation is weak because the simulated nature of the experimental scenarios rob it of its real-world power. However, this remains an open question.

In Study 4, an interaction between the Explicit Command manipulation and the Expert Manipulation was expected to emerge for both public endorsement and private beliefs relevant to norm endorsement. This did not occur for private beliefs -- at least, not very strongly. Although it is clear in Table 6 that the pattern on the private belief measures is virtually identical to that of the endorsement measures (as expected), this pattern is fairly weak. Why might this be the case? In both Studies 3 and 4, the two endorsement measures were strongly correlated, while the two private belief measures were largely uncorrelated -- suggesting that the private belief measures were less reliable than the endorsement measures, and thus less likely to produce effects. So these weaker effects could be a mere methodological artifact.

This artifact could have resulted from a simple methodological difference between

the two types of questions: In both Studies 3 and 4, the private belief questions always came after the endorsement questions, and thus there may have been a "dilution" effect; items that come later in questionnaires can show weaker effects for multiple reasons, among them fatigue and familiarity. More substantial theoretical considerations could play a role as well. For example, there could be something about actually deciding to choose between two systems (as was implicit in the endorsement measures, but not the private belief measures) that sharpens the contrast between them -- thus strengthening the effect for the endorsement measures.

Reactance as an Alternative to Attribution?

Reactance theory (Brehm, 1966) posits that, when persons feel that their freedom is restricted, they respond by attempting to re-establish that freedom. One clear implication of this theory is that people often do not like to be told what they must do -- and when they are so told, they may well respond by doing the exact opposite in an emotional response the equivalent of "yeah, well, I'll show you that I can do what I want!" This theory thus potentially offers an alternative explanation for the key results obtained in both Studies 3 and 4. Could it be that persons, when being told what to do by the authority figure, are doing the opposite of the authority's command as a strategy to re-establish their freedom?

At a broad level, both reactance and attribution almost certainly play a role as to why persons might do the opposite of what authority figures say. The two explanations are not competing; both can easily be imagined to occur simultaneously. However, in the present study, a few things suggest that reactance did not play a major role in the effects observed -- and, at the very least, is not suitable as an <u>alternative</u> explanation to

the attributional processes proposed to account for the effects. First, to account for reactance, the initial intent of the present study was to code for reactance explicitly in participants' free response statements. However, despite being given an open-ended question asking them why they behaved as they did, hints of reactance-related answers were virtually non-existent in the present study. Of course, reactance processes may go on beneath conscious awareness -- thus such a failure to find direct evidence of it is hardly conclusive. At the very least, however, according to participants themselves reactance had very little to do with their choices.

More importantly, direct tests of mediation suggested that the proposed norm-relevant attributional processes largely accounted for the expected effect of the authority figure's command. Although such mediation analyses, because they are dependent upon an accurate operation of the attributional construct, are not conclusive, they at the very least are consistent with the notion that attributional processes played some role in accounting for the effect. Taken together, then, the available evidence suggests that reactance cannot provide a very compelling alternative account of these results.

CHAPTER SIX

Individual Differences and Norm Communication

Because people differ from each other, it is worth asking the question: Might different persons respond differently to the psychological cues presented to them in the present studies? To assess this question, at the end of Studies 1-4 participants also completed a battery of questionnaires designed to assess potentially-relevant individual differences domains. At a conceptual level, the individual differences approach in the present studies emphasizes two broad aspects of human psychology that seem particularly relevant to the present theoretical framework: Social and epistemological needs. People with different social needs may respond differently to social cues (such as those participants faced in the present studies). People with different epistemological needs, when presented with multiple sources of information that can be used in decision-making, may tend to draw from different sources. Thus, to assess these needs, three broad categories of individual differences measurements were used: Those pertaining to Cultural Background, Gender, and Personality.

Cultural Background

The most studied aspect of cultural differences is that involving individualism and collectivism (see e.g., Hofstede, 1980; Kagitcibasi, 1997). Some cultures (including most Asian cultures) are considered to emphasize some type of group structure (family, company, nation) more than individuality, while other cultures (including most "Western" cultures) are considered to emphasize individuality more than collective structures.

Epistemological Differences and Psychological Cues Relevant to Objective

Reality

One specific aspect of individualism and collectivism may be important in the present studies: Cultures may differ in their preferred sources of knowledge, and this difference could have an impact on norm communication. For example, it may be that in many collectivistic cultures, persons more readily draw their knowledge (and thus their conception of what defines objective reality) from the dictates of other people (such as authority figures). In more individualist cultures, however, there may be more of a tendency to think that such objective reality is discovered empirically, separate from other people (see Conway, Schaller, Tweed, & Hallett, in press). Indeed, empirical evidence suggests that persons from generally collectivistic Poland were more influenced towards compliance by a "social proof" cue, whereas persons from the generally individualistic United States were more influenced towards compliance by a "consistency" cue (Cialdini, Wosinska, Barrett, Butner, & Gornik-Durose, 1999). This suggests that persons in collectivistic societies are more likely to use other people as a source of information when deciding whether to comply with a request, whereas persons in individualist societies are more likely to use their own past beliefs or behaviors.

There are also reasons to believe that at least some generally collectivistic Asian cultures differ from Western cultures in how they derive their knowledge. Chinese culture, for example, tends to emphasize the Confucian idea that knowledge is not something discovered but rather passed down from person to person; whereas Western cultures tend to emphasize the Socratic idea that knowledge is produced by individuals (Tweed & Lehman, in press). Indeed, consistent with this, Westerners scored higher than Chinese on a four-item scale measuring the degree that persons trusted their own

ability to directly apprehend objective reality without other people's help (Conway, 2000). However, these results are preliminary, and very little other research to has directly examined epistemological differences across cultures along this dimension (Hofer & Pintrich, 1997).

Questionnaires

To assess their cultural background, participants were asked to complete a demographic questionnaire identifying aspects of ethnic and cultural background. Three questions (own, mother's, and father's places of birth) were used to place persons in one of two cultural categories (Chinese or Western). If a participant and both of their parents were born in Mainland China, Hong Kong, or Taiwan, they were considered "Chinese." If a participant and both of their parents were born in Canada, the United States, Britain, Western Europe, Australia, or New Zealand, they were considered "Western." All participants who did not meet these criteria were dropped for categorical analyses of cultural background. In addition, the Vancouver Index of Acculturation (VIA) was completed by participants (Ryder, Alden, & Paulhus, 2000). The primary focus in the present study was on the North American subscale of the VIA. This subscale taps into the degree that persons feel a part of North American culture, asking questions (for example) about preferences for North American food and persons (Please see Appendix E). Thus, in the present study the questionnaire was used as a general continuous measure of identification with North American culture -- and not as a measure of acculturation. Analyses of acculturation for persons who identified their heritage culture as "Chinese" on the VIA are also presented for both the North American and Heritage (Chinese) subscales.[4]

Gender

Similar epistemological differences might be expected between men and women. The literature on epistemology has suggested that women view knowledge as having a more interpersonal aspect than do men (Hofer & Pintrich, 1997), thus it may be that women are more likely than men to use other persons as sources of valid information. Additionally, because women historically have had a more communal orientation than men, women may be more sensitive to social cues. For these reasons, gender may serve as a useful variable in the present studies.

Personality

Of course, both cultural background and gender capture a multitude of dimensions unrelated to those of interest in the present studies. To more directly measure individual differences relevant to epistemological and social needs, a few personality measures were completed by participants as well. On the epistemological side, participants completed the Personal Need for Structure scale (PNS; Thompson et al., 1992) and the Epistemological Source Questionnaire (Conway, 2000). The PNS scale measures persons' desire for a rigid cognitive structure. The Epistemological Source Questionnaire (ESQ) contains two subscales: One subscale measures how much persons value their own ability to discern objective reality, independent from other people (the Epistemological Source Questionnaire-Self scale; ESQ-S); the other subscale measures how much people trust others as windows to objective reality (the Epistemological Source Questionnaire-Other scale; ESQ-O). The two subscales of the

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4. Acculturation analyses for persons of Chinese background are based on an unusually small sample -- in part, because many participants (roughly half) did not fill in their heritage culture on the VIA questionnaire.

ESQ are largely uncorrelated (Conway, 2000).

Relevant to social needs, participants completed the Interpersonal Orientation Scale (Hill, 1987) and the Aspects of Identity IIIx questionnaire (Cheek & Tropp, 1994). The Interpersonal Orientation Scale (IOS) is a measure of how much persons desire affiliation, and it contains four different subscales. Each subscale represents a different underlying reason why people might value others: Persons high on the Positive Stimulation scale like others because they provide entertainment; persons high on the Attention scale like others as sources of praise for themselves; persons high on the Comparison scale value others as a standard against which to compare themselves; persons high on the Emotional Support scale like others because they provide them with warmth and encouragement. The Aspects of Identity questionnaire assesses the value that persons place on three different categories of identity, as measured by three different subscales: The Collective scale measures the value persons place on things like ethnicity and religion; the Social scale measures the value that persons place on other people's opinions; and the Personal scale measures the value that persons place on their own thoughts and feelings. (Please see Appendix E.)

Impression Management Cues

Expectations

Although it is unclear exactly how individual differences along epistemological and social dimensions will impact persons' interpretations of the impression management cues used in Studies 1 and 2, some speculations can be offered. For example, it may

be that persons who prefer others as a source of objective reality (such as, perhaps, Chinese persons) may be more likely simply to trust the endorsement of the persons in the group -- and therefore disregard the impression management cue. This suggests that persons who prefer others as sources of information ought to be especially influenced by the norm, and thus potentially less influenced by the impression management cue.

However, what is to be expected from persons high in social needs is unclear, because the scenarios used in the present studies provide multiple and contradicting pieces of social information. Does the person high in social needs attend to the norm or to the social cue? One might suggest, for example, that because Chinese persons emphasize the social context, they may be especially sensitive to social cues -- and thus may be particularly influenced by the impression management cue. However, because of the theoretical murkiness surrounding the individual differences measures with respect to Studies 1 and 2, much of the work done on individual differences for Studies 1 and 2 was exploratory.

Study 1 Results

For analytic simplicity, analyses for culture, gender, and personality variables presented for both Studies 1 and 2 below pertain to those two conditions where the biggest differences were expected and emerged (the Friend and Sigma conditions; thus, the Golf Club condition is dropped). Also, again primarily for analytic simplicity, all analyses reported are on the positive communication intent composite.

Using the dichotomous classification of Chinese/Western, analyses within a 2 (Impression Management Cue) X 2 (Cultural Background) design suggested that cultural

background did not play much of a role in communication content (Culture main and interaction effects on the positive communication intent composite F's< .47, p's >.50).

Regression analyses were used to see if the level of North American identification played a role in the effect. Specifically: (1) A dummy variable was created for the Impression Management Cue manipulation where the Friend and Sigma conditions were recorded as 0 and 2, respectively, and then converted to z-scores; (2) The Vancouver Index of Acculturation North American scale (VIA; Ryder, Alden, & Paulhus, in press) was converted into a z-score; (3) An Impression Management Cue X VIA interaction term was created by multiplying those two scores together for each participant; (4) A multiple regression analysis was conducted in which the Impression Management Cue, VIA, and interaction terms were entered as predictors.

Subsequent regression analyses using the North American identity subscale of the VIA suggested that the level of North American identity was unimportant to the level of positive group-relevant communication intent in the present study (absolute values of main effect and interaction standardized betas <.14, p's > .51).

Similar analyses with the VIA looking at the acculturation of just those persons who explicitly named "Chinese" as their heritage culture also yielded little of inferential importance for either the Chinese or North American identification subscale, all p's > .310.

Gender analyses within a 2 (Impression Management Cue) X 2 (Gender) design revealed some interesting but inferentially unimpressive mean differences between women and men. Whereas both women (M= -.22) and men (M = -.16) intended to communicate relatively negative stereotypes when the Impression Management Cue

was present, only women ($\underline{M}$ = .32; men's $\underline{M}$ = -.23) showed more positive communication intent when the cue was absent. Although this mean pattern is fairly compelling, inferential statistics suggest that the interaction could have resulted from sampling error, $\underline{F}(1,29) = 1.64$, $\underline{p} = .210$.

Analyses of personality questionnaires were performed in a manner identical to the VIA regression analyses presented above. Because of the large number of potential effects that could be explored in these analyses, only effects that achieved the conventional $\underline{p} < .05$ marker for the positive communication intent composite are discussed here. Using this criterion, only one main effect and one interaction emerged. First, the Personal Identity subscale of the Aspects of Identity Questionnaire was inversely related to the positive communication intent composite (standardized $\underline{beta}$ = -.39, $\underline{p}$ = .026). Second, an interaction emerged between the Impression Management Cue manipulation and the Epistemological Source Questionnaire's Other subscale (ESQ-O; standardized $\underline{beta}$ = .39, $\underline{p}$ = .027). Subsequent analyses of means created by approximating the upper and lower quartiles of the ESQ-O suggested that high ESQ-O persons showed more positive communication intent in Sigma (versus Friend) conditions, while low ESQ-O persons showed the opposite pattern.

Study 2 Results

Using the dichotomous classification of Chinese/Western, analyses within a 2 (Impression Management) X 2 (Culture) design suggested a possible -- but inferentially unimpressive -- interaction between Culture and the manipulation. Specifically, whereas Westerners demonstrated more of a tendency to report positive group-relevant communication intent in the Friend ($\underline{M}$ = .06) than the Sigma ($\underline{M}$ = -.34) conditions, the

reverse was true for Chinese participants (Friend $\underline{M}$ = -.44; Sigma $\underline{M}$ = .26). However, due to a small sample size, sampling error cannot confidently be ruled out as an alternative explanation for this interaction, $\underline{F}$(1,10) = 2.59, $\underline{p}$ = .139. No main effect emerged for culture, $\underline{F}$(1,10) = 0.02, $\underline{p}$ = .881.

Analyses using the North American subscale of the VIA was performed in a manner identical to Study 1. These regression analyses suggested that the level of North American identity was unimportant in the present study (absolute values of main and interaction standardized betas <.22, all $\underline{p}$'s > .37).

Similar analyses with the VIA looking at the acculturation of just those persons who explicitly named "Chinese" as their heritage culture also yielded little of inferential importance for either the Chinese or North American identification subscale, all $\underline{p}$'s > .290.

Gender Analyses within a 2 (Impression Management) X 2 (Gender) design revealed some interesting mean differences between women and men. First, overall, men ($\underline{M}$ = -.41) indicated that they would communicate more negative stereotypes than women ($\underline{M}$ = .04), $\underline{F}$(1,28) = 3.92, $\underline{p}$ = .058. However, this main effect was somewhat qualified by an inferentially weak Impression Management Cue X Gender interaction: Whereas both women ($\underline{M}$= -.21) and men ($\underline{M}$ = -.38) communicated relatively negative impressions when the Impression Management Cue was absent, only women ($\underline{M}$ = .29; men's $\underline{M}$ = -.43) showed the intent to communicate more positively when the cue was present. Although this mean pattern is fairly compelling, inferential statistics suggest that it may be due to sampling error, $\underline{F}$(1,29) = 1.51, $\underline{p}$ = .229.

Analyses of personality questionnaires were performed in a manner identical to

Study 1. Because of the large number of potential effects that could be explored in these analyses, only effects that achieved the conventional $p < .05$ marker (or that shed light on the effects presented in Study 1) are discussed here. Two main effects and one interaction met these criteria. First, a large main effect for the Positive Stimulation subscale of the Interpersonal Orientation Scale emerged (IOS-PS); the IOS-PS was positively related to the positive communication intent composite (standardized beta = .61, $p = .018$). Second, conceptually consistent with the results in Study 1 (albeit inferentially weaker) the Personal Identity scale was positively related to communication positivity (standardized beta = .35, $p = .140$). Although weaker, this corroborates results from Study 1: In both studies, participants high in personal identity were less likely to say they would pass on the normative belief.

In addition, as in Study 1 an interaction emerged between the Impression Management manipulation and the Epistemological Source Questionnaire's Other subscale (ESQ-O; standardized beta = .44, $p = .032$). Subsequent analyses of means created by approximating the upper and lower quartiles of the ESQ-O suggested that high ESQ-O persons showed more positive communication intent in Sigma (versus Friend) conditions, while low ESQ-O persons showed the opposite pattern.

Discussion of Studies 1 and 2

Both Studies 1 and 2 suggested that, in general, persons who value their own personal identity are especially unlikely to intend to communicate norms that are transmitted by others. In Study 1, participants who valued their personal identity were less likely to say they would communicate a positive norm; in Study 2 they were less likely to say they would communicate a negative norm. This finding makes intuitive

sense: The more I feel that my own values are important, the less likely I am to rely on other people as sources of information.

Relatedly, in Study 1 persons who explicitly value others as sources of information (as measured by the epistemological source questionnaire) were especially likely say they would pass on the positive stereotype norm when no cue was present, and especially unlikely to do so when the norm emerged in the presence of a group member. The first half of this makes sense, and is consistent with the above finding for personal identity: All else being equal, persons who value other people as sources of information ought to be more likely to believe and communicate norms. However, why this process reverses in the presence of the positivity cue is unknown.

Like Study 1, Study 2 also revealed a strong interaction between the impression management cue manipulation and the degree that persons relied on others as an epistemological source. Although superficially similar to the results of Study 1, in reality these results are conceptually the opposite -- in Study 1, high ESQ-O persons were more likely to communicate a (positive) norm when a Impression Management Cue was present; however, in Study 2, high ESQ-O persons were _less_ likely to communicate a (negative) norm when that same cue was present. Thus, there is no conceptually consistent effect of the ESQ-O scale across the two studies. It may be that there is something about the valence of the norm that changes how people with different epistemological preferences react to normative information. Exactly what that might be, however, is unclear at this time.

Taken together, these two studies suggested some interesting gender differences. Although inferentially unimpressive, in both Study 1 and Study 2, the

effects of the manipulation on the positivity of communication intent held exclusively for women -- thus, inferential tests notwithstanding, this may indicate a real effect. Several processes may account for this finding. First, it may be that women are simply more socially perceptive than men, and thus are more likely to pick up on the necessary social cues that trigger the attributional processes theoretically assumed to be driving the effect. A second and related reason may have to do with differences in each gender's predisposition towards positive and negative stereotypes. Due to the fact that men tend to be more competitive than women (see, e.g., Buss, Haselton, Shackelford, Bleske, & Wakefield, 1998), it could be that men are predisposed to believe negative (versus positive) stereotypes; thus (as was the case in Study 1) when a positive stereotype is presented to them by others, they are not inclined to trust it, and (as was the case in Study 2) when they are presented with a negative stereotype, they are ready to believe it. On the other hand, women, who are considered more communal, may be predisposed to believe positive stereotypes; thus, when presented with a positive stereotype, they are more inclined to believe it until they have a compelling attributional reason to dismiss it (as in Study 1), and similarly less inclined to believe a negative stereotype -- so that when they have an attributional reason to dismiss a negative stereotype, they (unlike men) do so (as in Study 2). Of course, this is all post hoc speculation, and it is likely, if the present studies indicate a real effect of gender, that multiple processes contribute to that effect.

Taken as a whole, however, the results pertaining to various kinds of individual differences present a rather inconsistent and underwhelming story. No strong evidence emerged to suggest that the effects observed in Studies 1 and 2 are clearly moderated

by an individual difference variable.

Authority Figures

Expectations

Consider again the potential for persons to differ in their preferred epistemological sources. This individual difference has implications for how participants interpret the commands of an authority figure. When a norm is made explicit by an authority, persons who do not value others as sources of information about reality may (due to the attributional logic described earlier) take this to mean that the norm is having some influence "separate from" objective reality. They may do this because they assume that an authority figure's command is not really tied to objective reality. But contrast this with the person who particularly values other people as a window into reality; this latter person may be more inclined to view the authority figure's command itself as reflecting that reality, and this psychological process may rob the attributional processes previously discussed of their power. Thus, all persons could attribute the norm to the authority figure's command; but the impact that this attribution has may differ for persons with different epistemological preferences.

Because Chinese and Western persons (as well as men and women) may differ in their epistemological preferences, this way of thinking could have widespread consequences for the results of Studies 3 and 4. It was expected that both Cultural Background and Gender would moderate the effect of the non-expert authority figure's command when persons were no longer under the control of the authority. For those groups who are less prone to value other persons as epistemological sources (i.e.,

Westerners, men), it was expected that a non-expert authority's command should decrease norm endorsement. However, for those groups who are more prone to value other persons as epistemological sources, this effect was expected to be offset or slightly reversed.

Due to the multi-faceted nature of the social context within the story, it is again somewhat unclear what impact individual differences in social needs may have. Rather than speculate on what processes might be going on up front, a further discussion of the impact of social needs will be delayed until the after the results section.

Study 3 Results

Analyses for culture, gender, and personality variables presented for both Studies 3 and 4 below pertain to the composite WobbleNet Endorsement measure. For Study 3, using the dichotomous classification of Chinese/Western, 2 (Cultural Background) X 2 (Explicit Command) X 2 (Under Authority) analyses suggested that culture was largely unimportant to the effect (for all Culture main and interaction effects on the WobbleNet Endorsement measure, F's < .10, p's >.79).

Analyses examining the level of North American identity were performed in a manner similar to Studies 1 and 2. Specifically: (1) Dummy variables for the Under Authority and Explicit Command manipulations were created and converted to z-scores; (2) The Vancouver Index of Acculturation North American scale (VIA; Ryder, Alden, & Paulhus, in press) was converted into z-scores; (3) An Under Authority X VIA interaction term was created by multiplying those two scores together for each participant; (4) An Explicit Command X VIA interaction term was created by multiplying those two scores together for each participant; (5) An Under Authority X Explicit Command interaction

term was created by multiplying those two scores together for each participant; (6) An Under Authority X Explicit Command X VIA interaction term was created by multiplying those three scores together for each participant; and (7) A multiple regression analysis was conducted in which the Under Authority, Explicit Command, VIA, and all interaction terms were entered as predictors. These regression analyses suggested that the level of North American identity was unimportant in the present study (absolute value of all standardized betas <.11, all p's > .37).

Similar analyses with the VIA looking at the acculturation of just those persons who explicitly named "Chinese" as their heritage culture also yielded little of inferential importance for either the Chinese or North American identification subscale, all p's > .440.

Similarly, no effects in a 2 X 2 X 2 design were found for gender (all interaction and main effect F's < .75, all p's > .400).

Analyses of personality questionnaires were performed in a regression framework identical to the VIA analyses reported above, and yielded little of inferential or theoretical importance. Because of the large number of potential effects that could be explored in these analyses, only effects that achieved the conventional p < .05 marker for the WobbleNet Endorsement score will be discussed here. The only effects that met this criterion were two similar three way interactions: Both the Personal Need for Structure (standardized beta = .33, p = .002) and the Epistemological Source Questionnaire-Other (standardized beta = .23, p = .049) scales had three-way interactions with the Authority and Command manipulations. Subsequent analyses of means created by approximating the upper and lower quartiles of the personality scales suggested that persons who

scored lower on both the PNS and the ESQ-Other scales showed an Authority X Command interaction in the same direction as that reported for the whole sample (only more pronounced), while persons who scored higher on both questionnaires showed generally a somewhat reversed pattern.

Study 4 Results

Using the dichotomous classification of Chinese/Western, these analyses suggested a possible three-way interaction between Cultural Background, Explicit Command, and Expert, $\underline{F}(1,45) = 3.38$, $\underline{p} = .073$. The mean pattern suggested that this effect was mostly due to differences in the Expert conditions: Whereas Westerners exhibited the expected reversal of the Explicit Command manipulation in the Expert conditions (Explicit Command $\underline{M} = 7.17$, No Explicit Command $\underline{M} = 3.25$), Chinese participants displayed the opposite pattern (Explicit Command $\underline{M} = 2.75$, No Explicit Command $\underline{M} = 5.33$). No other main or interaction effects emerged for Cultural Background on the WobbleNet Endorsement measure, $\underline{F}$'s < 1.04, $\underline{p}$'s >.310.

Analyses using the North American identity subscale of the VIA were performed in a manner identical to Study 3. These regression analyses suggested that the level of North American identification was largely unimportant to WobbleNet Endorsement in the present study (absolute value of all standardized betas <.09, all $\underline{p}$'s > .410).

Similar analyses with the VIA looking at the acculturation of just those persons who explicitly named "Chinese" as their heritage culture also yielded little of inferential importance for either the Chinese or North American identification subscale. The only effect that achieved conventional levels of significance was a main effect for the North American identity subscale: Chinese persons who most strongly identified with North

American culture were less likely to choose the normative system, beta = -.57, p = .031. (However, it should be noted that this same effect did not occur for Study 3, p = .921). All other p's were > .110.

Gender analyses within a 2 (Explicit Command) X 2 (Expert) X 2 (Gender) ANOVA design revealed a 2-way interaction between Gender and the Explicit Command manipulation (F[1,84] = 4.54, p = .036): Whereas men showed a large effect for the explicit command manipulation (No Command M = 6.45, Command M = 0.54), women showed a much smaller effect (No Command M = 4.23, Command M = 2.69). No other effects emerged for gender (F's < .34, p's > .560).

Analyses of personality questionnaires were performed in a manner identical to the VIA analyses. Because of the large number of potential effects that could be explored in these analyses, only effects that achieved the conventional p < .05 marker or that shed light on Study 3 effects will be discussed here. The majority of the effects that achieved conventional levels of significance were two-way interactions involving the Explicit Command condition. First, a two-way interaction emerged between the Epistemological Source Questionnaire-Other (ESQ-O) scale and the Explicit Command manipulation (standardized beta = .24, p = .017). Subsequent analyses of means created by approximating the upper and lower quartiles on the ESQ-O scale suggested that this effect is accounted for primarily by differences in the No Explicit Command conditions: When Whim did not give an explicit command to go with WobbleNet, persons high on the ESQ-O were far more likely to be persuaded by the committee's consensual "WobbleNet" vote (and thus choose WobbleNet themselves) than persons who scored lower on the ESQ-O.[5,6]

Secondly, two sub-scales of the Interpersonal Orientation Scale also showed two-way interactions with the Explicit Command manipulation: The degree that persons desire attention from others (IOS-attention; standardized beta = .20, p = .046), and the degree that persons use others for social comparison (IOS-comparison; standardized beta = .33, p < .001). In both cases, subsequent analyses of approximated quartile scale means suggested that as persons felt a stronger need for others (whether for attentional or social comparison reasons), they showed a stronger effect of the explicit command manipulation. Persons high on these two IOS subscales were more likely to choose the normative system when no explicit command was present; to a lesser degree, they were also less likely to choose the normative system when the explicit command was present.[7]

The IOS-comparison scale also had a two-way interaction with the Expert condition (standardized beta = .25, p = .007). Approximated quartile means suggest that the effect of the Expert manipulation was only in evidence for persons who did not value others for social comparison purposes: Persons low on the IOS-comparison scale were more likely to accept the norm when the President was an expert, but less likely to accept it when the President was a non-expert (compared to high IOS-comparison persons). Subsequent descriptive analyses of approximated means for three-way

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5. No effect emerged in Study 3 along the same lines (standardized beta = .06, p = .956); however, although very weak, the means in Study 3 suggest a pattern similar to that reported for Study 4.

6. Although Study 4 does not afford a direct attempt to replicate the 3-way interactions reported in Study 3 for the PNS and ESQ-Other scales, the mean patterns in Study 4 from the PNS X Explicit Command and ESQ-O X Explicit Command interactions suggest that the 3-way interactions from Study 3 are likely unreliable.

7. A very small interaction along the same lines emerged in Study 3 for the IOS-Attention subscale (standardized beta = .09, p = .448); although weak, the approximated quartile means in Study 3 suggest a pattern similar to that reported for Study 4. Virtually no interaction effect emerged in Study 3 for the IOS-comparison subscale (standardized beta = .02, p = .982).

interactions (including the Explicit Command manipulation) suggest that the 2-way interaction between the IOS-comparison and the Expert manipulation appears somewhat stronger when the President gives his command (compared to No Explicit Command conditions).

Discussion of Studies 3 and 4

Studies 3 and 4 suggest some interesting, if extremely tentative, avenues with respect to personality-relevant variables. The only culture-relevant effect occurred with respect to the Expert manipulation in Study 4; indeed, these results may shed light on the relative weakness of the Expert manipulation. For participants from Western backgrounds, when the President was an expert, his explicit command did in fact increase norm endorsement as expected. However, Chinese participants did not exhibit the expected pattern -- they continued to show a reduction in norm endorsement when the authority commanded the norm, even when he was an expert in computers. On the surface this is somewhat surprising, since it suggests that Chinese participants were less likely to accept an authority figure who has legitimate expertise than were Westerners -- a notion that appears to run counter to stereotypes concerning the two groups. However, a different way to interpret these results is that Chinese participants were simply less influenced by the Expert manipulation than were Westerners. Perhaps Chinese persons do not value the expertise heuristic in the same way that Westerners do. The expertise heuristic used in the study was primarily informational; perhaps if this heuristic more directly tapped into issues relevant to social connectedness (e.g., the authority is a socially competent person), it might have carried more weight with Chinese persons. Of course, this is merely post hoc speculation on a three-way interaction that

may well be unstable, so it is not wise to put too much stock in this interpretation just yet.

Study 4 also revealed an effect for gender: Whereas men showed a large effect for the explicit command manipulation, women showed a much smaller effect. Although it would be foolish to make too much of this at this point (especially given that no similar effect emerged very prominently in Study 3), it is worth noting that this is somewhat inconsistent with the interpretation offered for results in Studies 1 and 2 that women are generally more sensitive to social cues than men -- as men, not women, showed a stronger effect of the authority command cue in this study. Of course, it may well be the case that women are more likely to pick up on subtle, implicit social cues (like those used in Studies 1 and 2), while men are more likely to be influenced by overt, explicit cues (like those used in Studies 3 and 4). At this point, however, the exact role of gender in these processes remains open for debate -- and in need of further research.

In addition, Study 4 results suggested some interpretable interactions of the Explicit Command manipulation with personality. Specifically, in the absence of the authority's command, persons who valued others highly -- whether for epistemological, comparative, or attentional reasons -- were especially likely to endorse the committee's "WobbleNet" vote (compared to persons who valued others less highly). Thus, persons with strong social needs are more likely to go with the majority's opinion in the absence of any social cues.

However (at least with respect to comparison- or attention-based social needs), Study 4 results also suggest that persons who have strong affiliative desires may be more likely to make complex attributions based on socially-relevant information (such as

the command of an authority figure), perhaps because they are more sensitive to various kinds of social cues. Overall, this could suggest that, in the absence of cues specific to norm-relevant attributional processes, persons who need or value others are more likely to accept normative beliefs; however, when such norm-relevant cues are present, participants with different levels of social needs may respond to different types of cues in different ways. Persons high in social needs may be more likely to respond to purely social influence cues like the explicit command of an authority figure (albeit by making rather complex attributions); persons low in these needs may be more likely to be influenced by informationally-based cues and heuristics, such as the expertise of the authority figure. At any rate, these data with respect to personality differences are only preliminary, and much future work remains to replicate and extend these results before we can fully understand how individual differences may moderate these effects. This is especially so given that similar moderation of the key effect by the personality measures was either non-existent or underwhelming for Study 3. Thus, caution is urged.

CHAPTER 7

Practical and Theoretical Implications of the Attributional Approach

Limitations

Like all theoretically-driven empirical projects, the present work is not without its limitations. Before diving in and discussing the potential contributions of the present studies in illuminating the processes underlying norm perpetuation, it may be worthwhile to discuss these limits.

Why Were Private Belief Effects Weaker Than Those for Communication Intent?

The present theoretical model suggests that attributional processes relevant to perceived norm objectivity impact persons' private beliefs about norms, which in turn impact persons' intent to communicate those norms. Thus, private beliefs should be psychologically "closer to" the attributional processes than the intent to communicate in the present causal model (please see Figure 8). As a result of this, the present model suggests that the attribution-based effects set in motion by the manipulations used in the present studies should be stronger for private beliefs than for the intent to communicate. In fact, just the opposite happened: Across all four studies, the observed effects were larger for communication intent than for private beliefs.

Why might this be? One possibility is that thinking about communicating sharpens persons' cognitive focus, thus causing them to be more likely to factor in attributional information. Previous research <u>does</u> suggest that when persons are about to communicate something, they are more likely to form unitary and tightly organized beliefs than if they are about to receive a communication (Zajonc, 1960). Although it is

Figure 8: Potential Path from Perceived Consensus to Norm Perpetuation

Perceived Belief Consensus

Augmenting Cues →

Discounting ← Cues

Attribution: Norm is Objective	Attribution: Norm is Subjective
Personal Beliefs: Norm is Positive	Personal Beliefs: Norm is Negative
Intent to Communicate Norm	No Intent to Communicate Norm
Actual Attempts to Communicate Norm	No Attempts to Communicate Norm
More Norm Perpetuation	Less Norm Perpetuation
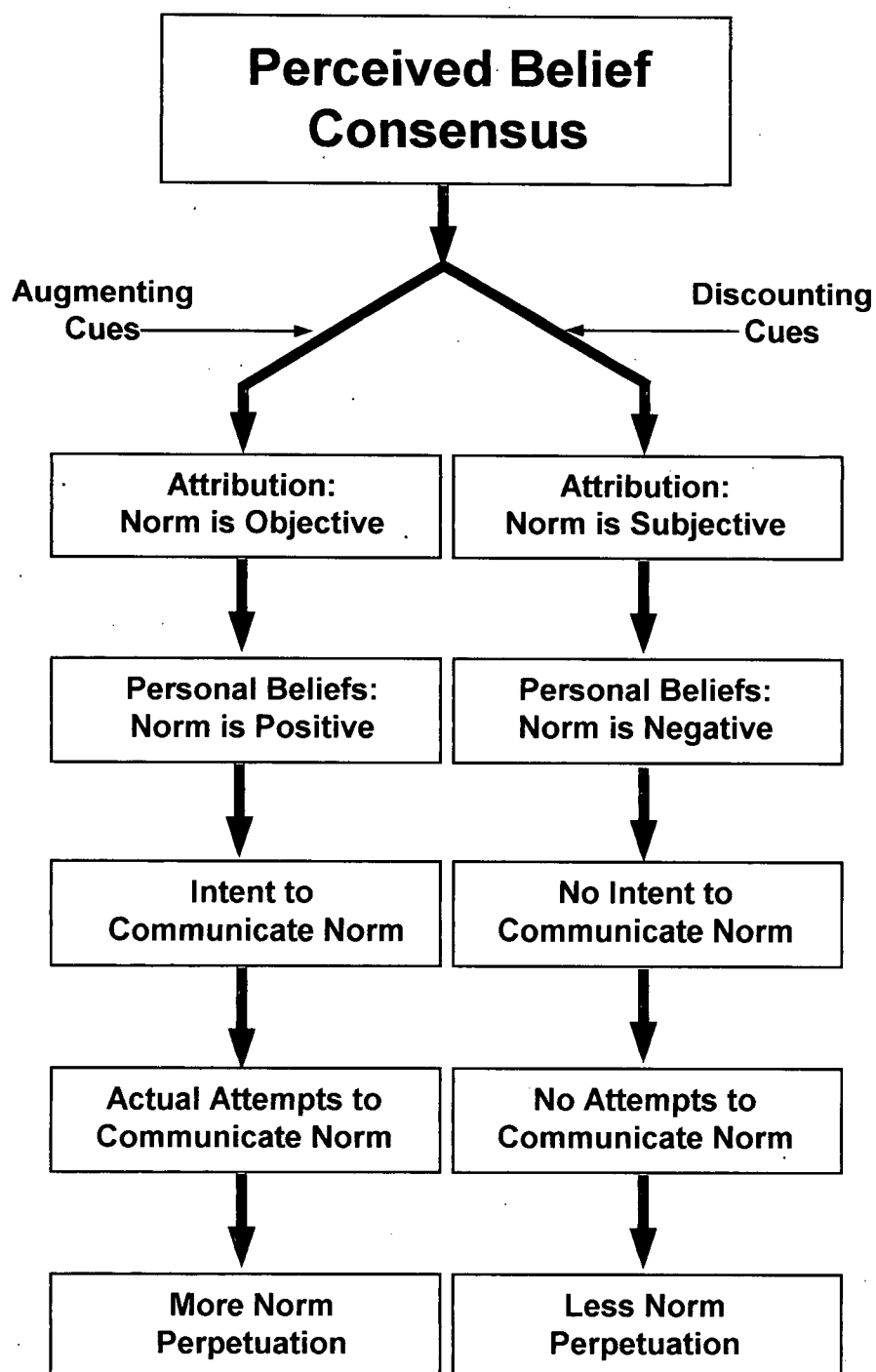
unclear exactly how that work maps onto the present studies, it at least indicates that intending to communicate can change one's cognitive mind-set. Thus, it could be that, as long as previous attributional judgments are relatively salient, they are taken into account with more fervor when communicating than when merely "deciding for oneself."

It may also be the case that at least part of the weaker private belief effects can be attributed to a methodological artifact. In all four studies, the measures of private belief came after the measures of communication intent -- and, as previously mentioned, later questions frequently yield weaker effects. It should be noted, however, that the strongest effects of all (those for the attributional measures) occurred after the private belief questions, which, although not ruling out the methodological explanation for the weaker private belief effects, does call into question any explanation based on general fatigue.

From a theoretical point of view, how troubling are the private beliefs results? Not too terribly. The results, although weaker, were generally very consistent with the proposed theoretical framework. Thus, the cumulative effects of the studies suggest that the effect occurring for private beliefs is real. It is unclear at this point whether or not the relative weakness of the effects of attribution-relevant manipulations on private beliefs, too, is real. This latter conclusion may lead into a kind of theoretical vacuum where psychological processes seem to exert their effects without (what seem to be) their necessary psychological links. Thus, multiple operations of private beliefs, as well as more than one question order, should be explored in future research prior to accepting it. At the very least, however, this limitation should be kept in mind for the present studies: The attribution-based effects observed here occurred most convincingly

for measures of communication intent, and far less convincingly for private beliefs.

Scope of Implications for the Present Work

The present work, too, has limits on the scope of its explanations for the persistence of norms. Indeed, one of the primary values of Studies 3 and 4 is that they explicitly elucidate those limits. It is clear from these studies that norm-relevant attributional processes can help us understand the persistence of norms only in some contexts. When an authority figure gives a command to engage in a norm, this command will frequently be obeyed regardless of its attributional effects. Similarly, when that authority figure is respected as an expert in a norm-relevant area, persons will be more likely to follow the authority's command, regardless of its attributional effects. Thus, in situations where an authority figure is still in control of the persons in question, or where the authority is a respected expert, attributions about the norm may play a comparatively minor role. The present work only has the potential to offer explanatory power in situations where persons are no longer under the authority figures' control, and where that authority figure is not regarded as an expert (e.g., a person moves to a different company and regards their previous boss as incompetent).

Other constraints not identified by the present studies may operate as well. Generally speaking, it may be that there are some contexts where norm-relevant attributional processes do not occur at all. For example, it could be that these attributions require cognitive resources, thus in situations where these cognitive resources are not available -- or where persons are unmotivated to use them -- an attributional approach may be rendered uninformative (more on this below).

The Path of Norm Perpetuation: From Norm Communication to Norm Perpetuation

Norm perpetuation is a multi-faceted, lengthy process that requires that a belief is shared at some point in time by one group of people, and at another point in time becomes shared by another group of people. As noted at the outset, the present research does not follow a norm along this entire path. Rather, it looks at small links in the proposed psychological and interpersonal chain relevant to how norms are perpetuated. As such, it is reasonable to ask: Exactly how relevant is this research to the broader question of how norms are perpetuated?

Some assumed aspects of the norm perpetuation process are presented in Figure 8. The present work starts with a shared belief by one group of people. It stops at the intent to communicate that belief -- by individuals at an individual level -- to others. This leaves us with several questions. First, is it reasonable to infer that changes in the intent to communicate or publicly endorse a normative belief will lead to actual increases in attempted communications of that belief? (For ease of discussion, the norm endorsement measure used in Studies 3 and 4 will be considered a proxy of implied communication intent). The answer to this question is almost certainly yes. As research on attitudes has shown, persons' beliefs about things are correlated with their actual behavior relevant to those things -- especially in cases where the attitudes very specifically match the behavior in question (Fishbein & Ajzen, 1975). In the present case, there is an extremely close match: If persons report that they would intend to communicate in a certain way, or would intend to publicly endorse a certain system,

chances are that such specific intentions would be highly correlated with actual behavior (assuming, of course, that the behavioral intentions were the same in a more real-world context).

The more difficult question is this: Would increased behavioral attempts by individuals to actually communicate a belief of necessity be positively correlated with actual acceptance of those beliefs by others? The answer to this question is a highly qualified yes. On average, it would seem reasonable to suppose that increases in attempts to communicate a belief by even one individual would increase the likelihood that the belief will be accepted by others. The more individuals that attempt to communicate the belief, then, the more likely on average one would expect a norm that is already shared by one population of people to become shared by other populations. And, indeed, research on the persistence of stereotypes over time suggests that psychological judgments of the intent to communicate various traits predicts (for highly conversationally visible groups) which traits get transmitted to multiple generations of people, and which traits drop out (Schaller et al., 2001). This and other evidence (see, e.g., Latane, 1996; Schaller & Conway, 1999) suggests that this assumption is plausible.

However, one of the messages of the present research is that contexts exist where attempted communications can lead to less norm acceptance (and thus, potentially, less norm perpetuation). This will be outlined in more detail below. Here, it is mentioned in passing to note that, although almost certainly true that on average attempts to communicate a normative belief will increase the likelihood that such a belief will become shared by other populations of people, this link is dependent upon how those attempted communications are construed. One of the central messages of the

present research is that anything -- including attempted communications -- that causes others to construe that a normative belief is divorced from objective reality will make people less likely to accept the norm (and thus stop the chain of norm perpetuation).

A related question is "can the potential for a belief to be shared be inferred by an increase in the mean level of that belief measured at the individual level?" Norms, by definition, are shared beliefs or behaviors. Measures of group consensus are fundamentally different, both conceptually and statistically, from measures of the mean level on some belief. If I increase the mean level of a belief within a population, I do not necessarily increase the amount of consensus within that population, and vice versa (Conway & Schaller, 1998). How, then, can a study claiming to deal with norm perpetuation base conclusions on differences in mean scores at the individual level?

Logically, increasing mean scores within a population increases the overall likelihood that the particular content of the belief is more strongly held by a greater number of people -- and as such gives us useful information about the current acceptance level of a belief. A group of people cannot go from a mean of 2 to a mean of 5 without increasing the strength of the belief in some persons within the population -- thus increasing the likelihood that the norm is accepted within the population (a group can, by contrast, go from a mean of 2 to a mean of 5 without increasing overall levels of agreement). So, although not measuring consensus, these mean extremity scores provide information that is useful for making inferences about norm perpetuation. However, it should be noted that "percentage agreement" scores -- scores that are somewhat closer approximations of actual consensus (see Conway & Schaller, 1998) -- were used in Studies 3 and 4, and these scores showed a similar (albeit weaker) pattern

as the "mean extremity" scores.

At another level, whether using mean extremity or percentage agreement scores, it is certainly a leap to infer that these results based on individual scores in non-interactive populations (e.g., members in the studies did not talk to each other) are relevant to the persistence of real norms; however, it is a leap that is not without justification. Both the "mean extremity" and "percentage agreement" approaches in the present data are, at the very least, useful towards understanding the processes that influence individual minds to accept or reject various normative beliefs. This is logically a very important part in understanding norm perpetuation. Indeed, that is why, in addition to more precise consensus measurements, both percentage agreement scores and mean extremity scores have frequently been used in previous research relevant to norm emergence or persistence (e.g., Devine & Elliot, 1995; Dovidio & Gaertner, 1986; Gilbert, 1951; Karlins et al.,1969; Neilson & Miller, 1998; Schaller & Conway, 1999; Schaller et al., 2001).

Theoretical Contributions of the Present Studies

Limitations aside, the present studies potentially shed light on a variety of theoretical perspectives. Let us review these theoretical contributions.

When Do People Use and/or are Influenced by Consensus Cues?

As mentioned in the introduction, the vast majority of work linking attribution and consensus looks at the impact that consensus cues have on attributions to individuals. There is a small body of literature, however, that looks at variables that moderate exactly when persons will attempt to use available consensus information in order to

make attributions. Much of this work focuses on the moderating impact of the type of attribution question under scrutiny; for example, persons are most likely to use consensus information when asked questions about an object cause (Alicke & Insko, 1984; but see Hilton, Smith, & Alicke, 1988), or, relatedly, causes for involuntary occurrences (Zuckerman & Feldman, 1984). One basic theoretical conclusion of this research is that people use consensus information for the types of questions that it provides the most information for.

Related research on attitudes suggests similarly that the relevance of consensus towards the question we are asking moderates when we attend to and when we dismiss consensus cues. Maheswaran and Chaiken (1991) found that consensus was most used by participants in conditions where the consensus cue was congruent with additional information, and task relevance was low. Setting aside the task relevance issue for a little later, the fact that congruency is a cue that makes people use consensus (and conversely, incongruency is a cue that makes people disregard it) suggests that cues that make us think that consensus information is not sufficient for our purposes will also cause a lack of reliance on that consensus. This has been construed in terms of the Systematic/Heuristic model of attitudes: When persons feel that heuristic cues like consensus are sufficient for their needs, they will be content to stop there; however, when they feel that those heuristic cues do not satisfy those needs, they will attempt to use additional (and more effortful) systematic processing (see Darke et al., 1998; Eagly & Chaiken, 1993). This is consistent with other research suggesting that people are more likely to be influenced by consensus information if they participate in a group discussion about the event under scrutiny (Wright, Luus, & Christie, 1990) -- thus

hearing others use consensus arguments and lending credibility to the consensus cue's sufficiency.

All of the above work on both attributions and attitudes suggests the following straightforward idea: Persons use and/or are influenced by consensus information most when that information is judged to be most informative. The present work also makes a similar point. Cues in the present studies that caused participants to view the consensus as untrustworthy also caused participants to disregard that consensus. However, the present work goes well beyond these previous studies in suggesting a different way that persons come to distrust the consensus: Namely, it suggests processes by which people perform attributions about why the consensus exists in the first place. It may be useful to more clearly illustrate the distinction between this work and previous work. For example, in the Maheswaran and Chaiken (1991) study, participants were implicitly told that the consensus information they received may be unreliable (because it was obviously incongruent with more objective information). However, this study did not require participants to form any attributions about why the persons who agreed in the first place did so. Results from the present studies, by contrast, are accounted for in large part by considering the causal attributions that participants made about why the norm existed in the first place. Thus, although the two studies suggest that participants end up in the same place (doubting the usefulness of the norm), they suggest different routes to that end point; the present attribution-based results suggest a route that is more subtle than previous work.

(Interestingly, if one maps the present study on to the conceptual framework underlying the Maheswaran and Chaiken (1991), one could claim that all participants in

Studies 3 and 4 were involved in incongruent conditions: The consensus information that they were given directly contradicted the more "objective" information. Of course the incongruency was explicitly painted to the participants ambiguously, so it was not as powerful as that used in Maheswaran and Chaiken's (1991) study. But the present results go beyond Maheswaran and Chaiken's work; because all participants experienced the same level of incongruency, this cannot account for the results in the present studies.)

At a broader level, the present work suggests there is a reflexivity in the attributional process; attributional evaluations can be made of the very information that is used in making attributions. There are certain cues that trigger differential attributions about <u>why</u> consensus exists in the first place -- and these attributions in turn determine whether or not the person making the attribution is influenced by the consensus.

Authority Figures

Perhaps the most obvious implications of these studies pertain to the influence of authority figures on norm perpetuation. Lots of previous research suggests that authority figures' commands influence norm perpetuation because people do what they are told to do. This has previously been qualified by suggesting that some types of authority figures are particularly likely to succeed in norm transmission (see Cavalli-Sforza, 1993). The present data suggest that it may be necessary to qualify it in a further and more dramatic way by considering, not just who the authority is, but also the situational and psychological context within which the authority's command is given. Specifically, in contexts where persons are not under the direct control of the authority figure, becoming aware of the authority's command to engage in the normative behavior

can actually <u>decrease</u> the likelihood that a norm is perpetuated.

Not only do these studies shed light on norm perpetuation, they potentially shed some light on why authority figures' commands to engage in normative behaviors are obeyed at all. On the one hand, they reinforce the notion that people will obey authority figures out of mere compliance. On the other hand, they suggest that persons sometimes obey authority figures, not because they have to, but because they believe what the authority figures are telling them -- because they think the authority figure is a trustworthy source of information. Thus, this research bolsters previous research suggesting that the particular <u>type</u> of authority figure matters. This earlier research indirectly suggests what the present research directly suggests: That trusted authority figures (such as parents in previous work, or experts in this work) are those mostly likely to be successful at norm transmission. (For related work on the qualities that impact when a minority of persons influences a majority, see, e.g.,Moscovici, Lage, & Naffrechoux; Nemeth & Kwan, 1987).

Communication Processes

The present studies also have implications for our approach to communication processes. As noted above, many previous approaches to communication implicitly assume that the mere attempt to communicate a belief of necessity leads to its acceptance by those who hear it. If we left it at that, this suggests that <u>any</u> increase in attempts to explicitly communicate a belief ought to lead to that belief's greater acceptance in a population. Again, probabilistically speaking, this is almost certainly true (indeed, the present application of the norm communication intent measures to norm perpetuation is partially based on this assumption). However, from within a

communication perspective, not only do we need to consider those things that influence the likelihood that someone will attempt to talk about a particular belief, we also need to consider how those attempted communications are received in the minds of the listeners. Successful communication requires at least two people: Someone to talk and someone to listen -- and encode.

The present results suggest that considering what is happening in the mind of the "listener" might have important implications for our understanding of norm perpetuation. They provide a cautionary flag to our "attempts at explicit communication lead to more perpetuation" rule. Sometimes, attempts to explicitly communicate a norm can lead to less perpetuation -- if those communications serve to divorce the norm from reality in the minds of the listeners. Consider Studies 3 and 4: The authority figure's attempt to explicitly command people to engage in the norm actually decreased norm perpetuation.

Similar communication processes can be imagined to occur outside the realm of authority figures. Suppose, for example, that you already had the idea in your head that "Texans are gun-toting jerks." Now imagine that a man was going around telling everybody -- including yourself -- that very thing that you already believed; he was telling them that Texans are gun-toting jerks. But suppose that you knew that this man was on the take from some Anti-Texan lobby and was paid to give Texans a bad name. Now you are not going to put a lot of stock in what he would say; you would probably think something like, "this guy is saying that these Texans are jerks, but he is only doing it because he is getting paid the big bucks." But consider that it might also have consequences on your attributions concerning why the stereotype is widely shared in the first place. You might think -- you know, this guy is telling me this because he is paid;

maybe the reason that everyone believes this stereotype in the first place isn't so much because it is true, but rather because of those crazy Anti-Texan lobbyists! Thus, it may be that communications of many different types can serve to actually <u>undermine</u> the norms that they supposedly wish to perpetuate.

From Ecology to Psychology: How We Make Our World Objective

We started our review of how norms are perpetuated by noting that it is almost certainly the case that some norms are perpetuated because they simply match objective reality well. (After all, Albertans probably all wear coats in the winter because it is cold.) However, we went on to point out the many things that influence norm perpetuation outside of mere reality: Previous norm history, modeling, the command of an authority figure, and communication processes. The present approach, however, cuts across both objective and subjective approaches, and as such can make a unique contribution to our understanding of why norms get perpetuated. The attributional framework under scrutiny here suggests ways that these rather subjective forces can actually impact perceptions of how tied a norm is to objective reality. As such, the present approach shows how simultaneously considering both objective and subjective correspondence approaches can help us understand why some norms are perpetuated.

Real-World Applications of Considering Perceived Norm Objectivity

The norm communication processes suggested by the present framework and given initial support in these studies potentially have wide application. Thus, it may be useful to speculate on exactly what the present framework implies for that great big real world out there beyond the lab.

Leadership Style

Consider first applications to the business context. Perhaps the plainest implications for the present approach pertain to the effect that managers and managerial styles have on organizational norms. The main implication is this: For the manager who wants to "change the culture," so to speak, there are both benefits and costs to having an aggressive, domineering style. On the one hand, people will almost certainly obey managers because that is what people do -- we obey authority figures. Thus, the aggressive manager can literally create norms out of the air and maintain them via forceful commands. On the other hand, there is a danger that such a style might serve to separate the norm that the manager wants instituted from objective reality in the minds of the people that are ultimately charged with carrying on the norm. Thus, it is probably the case that the aggressive manager can succeed at getting people to merely conform to the norm as long as the manager stays on them aggressively. However, if the manager lets the guard down, or leaves, that norm is likely going to die.

This suggests that simply hammering a norm down people's throat without explanation can have a serious "rebound" effect once the direct constraint of the authority's command is no longer present. So from a business norm's point of view, the thing that managers would want is to be able to persuade people, not to do a normative behavior out of mere obedience, but rather to do it because it is really important for some objective reason. This may seem obvious -- but the author suggests that reading the mission statement of any major company for two minutes will be enough to persuade most people that it does not seem to be much of an explicit goal of high-level management to ground their norms in objective reality.

Too, authority mandates from an overbearing authority have similar potential for this kind of "rebound" effect at a societal level. A modern historical example perhaps exists in Quebec. It was not too very long ago, prior to the 1960's, that Quebec was the most rigidly socially conservative province in the nation of Canada (for example, Quebecers objected to drive-in theaters because they offered youngsters too much opportunity to engage in physical relations). This conservatism was in part directed by a rigidly dogmatic clergy that had a reputation for being ruthless in forcing compliance. However, once the social and political tides began to turn in the 1960's and 1970's (due in part to the sexual revolution), and the clergy began to lose power, many of the norms instituted by the clergy almost completely vanished. Indeed, Quebec is now widely considered (by virtually any measure) the most socially (if not politically) liberal province in the nation -- and is probably the least socially conservative spot in the whole of North America.

Thus, Quebec provides a historical example of the potential for a rebound effect of authority figures' commands: As long as the norms could be maintained through forced compliance, they were passed on; but as soon as those norms could not be so maintained, they radically reversed in an amazingly short period of time. (Of course, although consistent with the attributional model, the role of attributional processes in this reversal is only speculation.)

The "Political Correctness" Movement

Consider, too, implications for other social issues. In the past generation, a social phenomenon dubbed the "political correctness" (or "PC") movement has taken a foothold in the fabric of North American society. Although the PC movement is almost

certainly complex from a sociological point of view, its basic tenet might be summed up in the statement: If you are going to talk about other groups, you had better talk positively. Thus, the PC movement strives to reduce negative stereotypes by removing negative connotations from group names, discouraging making fun of other groups, and so forth.

The goals of the PC movement are, from the point of view of the author, largely on the mark. After all, it is hardly a bad thing to be sensitive to other people, to attempt (as much as is possible) not to insult other groups, and to reduce -- or at least reduce the negative impact of -- unwarranted negative stereotypes that can be so damaging to intergroup relations. But, even granted these good intentions, it is a further question to ask: Does the existence of PC norms really lead to more positive perceptions of other groups?

Of course, there are psychological processes that would lead us to suspect that the answer is "yes." Previous research suggests that of the traits that may potentially define a group stereotype, those most likely to do so are the ones that persons are most likely to communicate to other people (Schaller & Conway, 1999; Schaller et al., 2001). Thus, one would suspect that if negative stereotypic traits become taboo topics of conversation, then they will gradually fade out of group stereotypes, simply because people are not talking about them anymore.

However, in reality, the picture is not that simple. Again, we must consider not only those processes that might influence what people attempt to talk about, but also how those attempted communications are received in the minds of the listeners. And it is precisely here that norm-relevant attributional processes may predict a surprising and

unintended "side effect" of the PC movement. It may be that PC norms can have a kind of rebound effect for positive stereotypes, because people begin attributing positive norms that they hear about groups to the PC movement, instead of to objective reality. People may intuitively think, "ok, sure, lots of people are telling me that this group is great -- but they are not saying that because the group really is great; they are just saying that because it is politically correct to say it." Thus, as persons become more aware of the PC movement, they may simultaneously be more likely to discount positive norms. Study 1, although of course not dealing with PC norms per se, does suggest that such attributional processes can occur.

The "Explicitness" of Norms: A Historical Example

The present approach may suggest that, for a norm, there is a danger in being made too explicit -- because it is (perhaps) easier to make attributional judgments about a norm when it is directly brought to one's attention. Thus, it may be that more implicit attitudes and "descriptive" behaviors (e.g., those behaviors that people merely do; see Cialdini & Trost, 1998) are more likely to survive than specific, explicitly-formed "proscriptive" doctrines.

Consider the dramatic change in religious norms that occurred in sixth century Europe, when huge portions of the continent were converted from paganism to Christianity. On the surface, paganism was almost completely wiped out in parts of Europe during this widespread conversion; yet aspects of paganism remained. Kenneth Scott Latourette (1938, p. 413) notes: "As a rule it was attitudes rather than specific beliefs and customs which persisted from paganism." It is perhaps not too much of a leap to suggest that those attitudes that survived were unevaluated and implicit --

compared to the explicit doctrines which perished. Indeed, even when specific customs or legends survived, the explicit explanations of them were frequently replaced with Christian content. Thus, the new pagan converts kept their old pagan healing wells and their functions intact, but their powers were now accorded to Christian patrons; similarly, the myths, legends, and rites associated with the pagan gods were now frequently connected to Christian saints and traditions (Latourette, 1938).

Although perhaps not necessarily requiring an attributional explanation, these facts suggest that those norms from the pagan religion that survived were those that were less likely to be evaluated at some level. Sometimes, the old attitudes survived; sometimes, the form of the old religion survived; but they were given a different explicit meaning. It is a further question, of course, whether or not this included attributions of perceived norm objectivity. It is almost certainly the case that many of the pagan "converts" were merely acceding the more public aspects of their religious beliefs (while keeping their private attitudes) because of societal or (in some cases) legal pressure to do so. It is also almost certainly the case that many of these former pagans accepted the new Christian norms because they believed them to be a true reflection of reality, and the aspects of the pagan religion that survived did so in part because they did not contradict the new perceived reality -- and thus did not stimulate attributions relevant to where those norms stood in relation to that reality.

Where Do We Go From Here?

It should be obvious by now that the present theoretical approach is relevant to a large number of literatures and perspectives. Because of this, there are a nearly unlimited number of additional directions that could be pursued in future research. Only

two broad categories of potential projects will be discussed here: Those pertaining to additional moderators of these effects, and those pertaining to testing these proposed attributional processes in more ambitious paradigms that allow for firmer conclusions to be drawn relevant to norm perpetuation.

Additional Moderating Variables: Is the Attributional Process Effortful?

One of the values of Studies 3 and 4 is that they clearly demonstrate the specific contexts within which the expected attributional processes do and do not exert their effects on behavioral intentions. But of course there are multiple other potential moderators that might be worth pursuing. For example, previous research on attitudes suggests that when persons are highly motivated to seek out lots of information, they are less likely to rely on consensus (e.g., Hazelwood & Chaiken, 1990; Maheswaran and Chaiken, 1991). Similarly, when persons are motivated to gain quick closure on some topic, they are more likely to rely on consensus -- at least in uncertain situations (Kruglanski, Webster, & Klem, 1993).

It is almost certain that these motivational processes will moderate the effects in the present studies to some degree. However, it is partially unclear exactly what kind of moderating impact that these motivations will have on the present effects. Indeed, testing for the moderation of information-seeking and closure motives may shed some light on the exact nature of the attributional effects in the present studies. Specifically, they may help answer the question: Are these effects due to rather automatic, effortless processes, or are they due to more controlled, effortful processes?

Consider a traditional manipulation of the information-seeking motivation: Task relevance. (It is not entirely clear how relevant the present studies were to participants;

in Studies 3 and 4, at least, the participants were making a highly important decision in the story -- but it is still just a story in which participants had nothing real at stake). On the one hand, the effect of norm-relevant attributional processes may be more likely to occur on highly relevant tasks because the attributions performed by participants in the present studies require more effort than does simply trusting in a consensus heuristic. On the other hand, perhaps the attributional effects are mostly gut-level discounting that goes on beneath conscious awareness; indeed, it is possible that the effects of attribution may <u>only</u> occur at low levels of task relevance because, once task relevance reaches a certain level, participants begin thinking about things beyond attribution, and thus dismiss consensus for other reasons.

It may be similarly useful to perform these studies while also including a traditional manipulation of the need for closure/structure, such as cognitive load. Again, it could be that participants under low cognitive load (thus participants with more cognitive resources) are more likely to show effects based on norm-relevant attributional processes. On the other hand, maybe these attributional effects are so basic that they still occur under high cognitive load -- or even <u>require</u> a higher cognitive load, because persons with more cognitive resources do additional, attribution-irrelevant things. (Of course, the present results <u>do</u> contain a test of the moderation of these effects by the need for structure -- a test that suggested that individual differences in the need for closure/structure did not really matter very much. However, using a more heavy-handed experimental manipulation might provide a better opportunity to observe such effects.)

More Ambitious Studies: Are the Attributional Processes Really Relevant to Norm

Perpetuation?

As has repeatedly been emphasized, the studies presented here only test certain parts of the assumed path from observed consensus to norm perpetuation. Although logically relevant to norm perpetuation, these studies fall short of following the actual longitudinal process of norm perpetuation over time. Although measuring norm perpetuation in this way is difficult, it may be worth pursuing some studies that attempt to provide an analog of norm perpetuation over time, while manipulating and measuring attributional processes.

One such method, called the "generational paradigm," has been previously used to study norm perpetuation (e.g., Insko et al., 1980; MacNeil & Sherif, 1976). This method involves having an initial group of participants engaging in some norm-relevant activity. Then, one or more of the participants in the initial group metaphorically "die" and are replaced in the group by new members. More norm-relevant activity occurs, and then old group members are again replaced with new members. Eventually, the final group contains none of the members from the original group.

This paradigm allows one to follow a norm's perpetuation more fully and explicitly than was afforded by the methods used in the present studies. As such, it would be particularly useful to run versions of the present studies modified to fit into a "generational paradigm." For example, one could tell an initial group of participants, playing mock "committee members" at a "company," to discuss only the positive qualities of (say) the WobbleNet networking system. Later "generations" of committee members could either be made aware of this constraint, or not. To the degree that they are made aware that a norm emerged on account of an authority's command, they should

(according to attributional logic) discount the reason for the consensus -- and thus, given no constraint themselves, be less likely to engage in the norm. Through using the generational paradigm, one could track the development of beliefs emerging under different cues such as this over multiple "generations." This would allow stronger inferences to be made about the impact of these attributional processes on the perpetuation of norms.

The Big Picture: Beyond the Obvious

In the big picture of how norms originate and are perpetuated, the present results encourage us to look beyond mere commonsense answers. Yes, communication positivity cues can lead to more positive norms. Yes, the explicit commands of an authority figure to engage in a norm are sometimes obeyed. But there is more. Counterintuitively, those very things that are intended to encourage a particular kind of norm can in fact end up leading to its demise. Communication positivity cues can ultimately lead to less positive communication; the direct command of an authority figure to engage in a norm can lead people to reject the norm. Both of these processes occur, in large part, because -- despite intentions -- the impression management cue and the command of an authority serve to divorce the norm from reality in the minds of the persons who may be potential carriers of the norm. Thus, the present approach encourages looking a little deeper at those psychological processes that lie beneath the surface -- the processes that determine exactly how norms gain their status as tied to objective reality. And, in doing so, it may help us better understand why some norms are perpetuated, whereas seemingly similar norms die out.

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Appendix A: Study 1 and Study 2 Stories

Segment 1

Bill had lots of friends; but there was one group of them in particular that he hung around with a lot. One of the things that Bill really liked about this group of friends was their diversity. They all came from very different backgrounds, and they had very different belief systems and personalities. With this collection of people, a lively debate over any given issue was nearly always inevitable. Bill often just sat and listened without saying anything.

Segment 2
Sigma and University Golf Club Conditions

This day, everyone (except Mary, who hadn't arrive yet) was sitting on the ground near the middle of campus and debating, in their usual way, about the good and bad points of different on-campus organizations. Jim had just started a conversation about a campus fraternity by asking, "So, people, what do you think of the Sigma Sigma Sigma Fraternity?"

Now Bill knew three people that were in the Sigma Sigma Sigma Fraternity. One of them seemed pretty smart; but two of them seemed kind of aggressive. But Bill knew that, really, three wasn't a lot of people to judge a whole group on -- after all, the Sigma Sigma Sigma Fraternity was made up of over 100 members.

Bill didn't say anything. And indeed, before anyone could answer Jim's question, he was interrupted by Mary, who had walked up while he was speaking. Someone else was with her.

"Oh, hi, Mary. Glad you could come," said Jim. "Who's your friend?"

Mary introduced the new guy. "Hey, everyone," Mary said, "I'd like you to meet Steve. Steve's a member of the <u>Sigma Sigma Sigma Fraternity/University Golf Club</u>."

Bill didn't know the new guy -- in fact, none of them did. After introductions had been made, Jim picked up the conversation he had started.

Friend Condition

This day, everyone (except Mary <u>and Steve</u>, who hadn't arrive yet) was sitting on the ground near the middle of campus and debating, in their usual way, about the good and bad points of different on-campus organizations. Jim had just started a conversation about a campus fraternity by asking, "So, people, what do you think of the Sigma Sigma Sigma Fraternity?"

Now Bill knew three people that were in the Sigma Sigma Sigma Fraternity. One of them seemed pretty smart; but two of them seemed kind of aggressive. But Bill knew that, really, three wasn't a lot of people to judge a whole group on -- after all, the Sigma Sigma Sigma Fraternity was made up of over 100 members.

Bill didn't say anything. And indeed, before anyone could answer Jim's question, he was interrupted by Mary, who had walked up while he was speaking. Someone else was with her.

"Oh, hi, Mary. Glad you could come," said Jim. "<u>And hi, Steve.</u>"

Mary and Steve, who were both original members of the group and thus were well known by everyone, said hello. After Mary and Steve found a place on the ground and settled in, Jim picked up the conversation he had started.

Segment 3

Study 1: Positive Norm

"We were just talking about the Sigma Sigma Sigma Fraternity," said Jim, "and in fact, I should say that I think Sigma Sigma Sigma is quite a great group. They've got a lot of intelligent people over there."

"Yes," said Mitch, agreeing with Jim's statement, "they really are. I think they are pretty sharp."

"Of course," said Pam,"I know some of the Sigma Sigma Sigma boys. Really bright guys; really, really bright."

Almost everyone now began to chime in with a chorus of "yes's" and "that's right's." Even Peggy and Larry, who had very different standards of judging people, agreed.

"Yes," said Peggy, "I've met some, and they seem pretty bright. They'll go far."

"I hate to agree with Peggy," said Larry, "but I do think that it's a smart group of guys, really."

When all was said and done, all ten people in the group (except Bill) had agreed that the Sigma Sigma Sigma Fraternity was a smart bunch of guys. Bill had not said so much as a word. He seemed content to merely sit back and take in the proceedings.

Study 2: Negative Norm

"We were just talking about the Sigma Sigma Sigma Fraternity," said Jim, "and in fact, I should say that I think Sigma Sigma Sigma is quite a poor group. They've got a lot of pretty ignorant people over there."

"Yes," said Mitch, agreeing with Jim's statement, "they really are. I don't think they are a very smart bunch at all."

"Of course," said Pam,"I know some of the Sigma Sigma Sigma boys. Not very bright guys; Not very bright at all."

Almost everyone now began to chime in with a chorus of "yes's" and "that's right's." Even Peggy and Larry, who had very different standards of judging people, agreed.

"Yes," said Peggy, "I've met some, and they seem pretty dumb. They won't go very far."

"I hate to agree with Peggy," said Larry, "but I do think that it's pretty unintelligent group of guys, really."

When all was said and done, all ten people in the group (except Bill and Steve) had agreed that the Sigma Sigma Sigma Fraternity was a pretty dumb bunch of guys. Bill had not said so much as a word. He seemed content to merely sit back and take in the proceedings.

Segment 4

Later on, Bill was talking on the phone with another friend, named Pip, who wasn't a part of his normal crowd. Now Pip and Bill (who frequently discussed different groups on campus) were chatting away about this and that campus group when the Sigma Sigma Sigma Fraternity came up.

"Hmm...you know I've heard of that fraternity," said Pip, "but I don't know anything about it. What's your opinion of that group.

What would you do if you were in Bill's place? In the questions that follow, your job is to consider how you would think and react if you were in Bill's place. What if you knew what Bill knew? What if you had hear the conversation that Bill heard? What if you had talked to Pip? Keep this in mind as you answer the following questions.

Appendix B: Study 1 Dependent/Attribution Measures

Free Response Items:

Please write a 1-4 sentence answer to each of the following three questions:

1. If you knew what Bill knew and heard what Bill heard, what do you think you would say to Pip about the Sigma Sigma Sigma Fraternity in this situation? Write out a response to Pip.
   "Pip, I think that the Sigma Sigma Sigma Fraternity is...
   "

2. *Why* would you say the above to Pip about the Sigma Sigma Sigma Fraternity?

3. Why do you think Bill's group of friends all expressed the same opinion toward the Sigma Sigma Sigma fraternity?

Nine-Point Ratings:

Try to put yourself in Bill's place. Please circle which number (from 1-9) best represents your answer to each of the following questions, keeping in mind that you are answering the questions as if you knew what Bill knew and heard what Bill heard:

1. How likely is it that you would tell Pip that the Sigma Sigma Sigma Fraternity members are really intelligent?
   Not at all likely   Very Likely
      1   2   3   4   5   6   7   8   9

2. How likely is it that you would tell Pip that the Sigma Sigma Sigma Fraternity members are <u>not</u> very intelligent?
   Not at all likely   Very Likely
      1   2   3   4   5   6   7   8   9

3. How likely is it that you would tell Pip that the Sigma Sigma Sigma Fraternity members are aggressive?
   Not at all likely   Very Likely
      1   2   3   4   5   6   7   8   9

4. How likely is it that you would communicate a positive impression of the Sigma Sigma Sigma Fraternity to Pip?
   Not at all likely   Very Likely
      1   2   3   4   5   6   7   8   9

5. How likely is it that you would communicate a negative impression of the Sigma Sigma Sigma Fraternity to Pip?

Not At All Likely   Very Likely
       1   2   3   4   5   6   7   8   9

6. Based on the story, how intelligent do you privately believe that the Sigma Sigma Sigma Fraternity members are?

Not At All Intelligent   Very Intelligent
       1   2   3   4   5   6   7   8   9

7. Based on the story, how aggressive do you privately believe that the Sigma Sigma Sigma Fraternity members are?

Not At All Aggressive   Very Aggressive
       1   2   3   4   5   6   7   8   9

8. Based on the story, how positive are your private impressions of the Sigma Sigma Sigma Fraternity members?

Not At All Positive   Very Positive
       1   2   3   4   5   6   7   8   9

9. Based on the story, how negative are your private impressions of the Sigma Sigma Sigma Fraternity members?

Not At All Negative   Very Negative
       1   2   3   4   5   6   7   8   9

10. Based on the story, how similar to each other do you think the members of the Sigma Sigma Sigma Fraternity are with regards to their intelligence?

Not At All Similar   Very Similar
       1   2   3   4   5   6   7   8   9

11. Based on the story, how similar to each other do you think the members of the Sigma Sigma Sigma Fraternity are with regards to their aggressiveness?

Not At All Similar   Very Similar
       1   2   3   4   ·5   6   7   8   9

12. Based on the story, to what degree do you think the fact that Bill's group of friends all agreed when they expressed their opinion of the Sigma Sigma Sigma Fraternity is because that's what they really believed?

Not At All   Very Much
       1   2   3   4   5   6   7 .8   9

13. Based on the story, to what degree do you think Bill's group of friends expressed their *real* opinion about the Sigma Sigma Sigma Fraternity during the conversation?

Not At All   Very Much

  1   2   3   4   5   6   7   8   9

14. Based on the story, to what degree do you think the fact that Bill's group of friends all agreed when they expressed their opinion of the Sigma Sigma Sigma Fraternity is because Steve was present?

Not At All   Very Much

  1   2   3   4   5   6   7   8   9

15. Based on the story, to what degree do you think the fact that Bill's group of friends all agreed when they expressed their opinion of the Sigma Sigma Sigma Fraternity is because they were influenced by the opinions of other members of the group?

Not At All   Very Much

  1   2   3   4   5   6   7   8   9

16. Based on the story, to what degree do you think the fact that Bill's group of friends all agreed when they expressed their opinion of the Sigma Sigma Sigma Fraternity is because of conformity to the opinions of other members of the group?

Not At All   Very Much

  1   2   3   4   5   6   7   8   9

Appendix C: Studies 3 and 4 Story Segments

Segment 1: The Cast of Characters from the *Manifold Company's* Computer Networking Committee

You're going to read a story in which we're asking you to play a part. The *Manifold Company* needs to upgrade its network, and is trying to decide between two computer systems: NetHawk and WobbleNet. You're going to read a story about how that decision unfolds. But first, we'll introduce you to the cast of characters who will be on the committee that makes the decision.

Here are the two main characters in the story:

<u>**You: the Senior Vice President**</u>

You are the main protagonist of our current story. In this story, you're the Senior Vice President and have all the power associated with that position (not much, to be sure, but you <u>do</u> make a pretty good salary). You have also been appointed as Chair of the Computer Networking Committee that's going to make the key decision in this story.

President Maximillian Whim (Study 4 Expert Manipulation)

Whim's the head guy -- ultimately, the decisions in the company are his. He has a Bachelor's degree in <u>Computer Science/Commerce</u> and a Master's degree in <u>Computer Networking/Marketing</u>. He's on the Computer Networking Committee, too, <u>and he obviously knows a whole lot about computers/but he doesn't know anything about computers</u>. Whim's most noticeable personality trait is that he's wildly unpredictable. No one is ever sure if he's going to completely take over a project himself, or if he's going to delegate authority, or if he's going to simply ignore a project -- frankly, no one's sure what he's going to do. People assume that there is a method to his madness; but only the mysterious Maximillian Whim knows for sure. Another characteristic of this enigmatic man is that he tends to crush those who cross him, and tends to reward those that don't. Thus, people are often afraid to get in his way.

Segment 2: Preface to the Meeting

The *Manifold Company* needed to upgrade its computer network; that was clear. What wasn't clear was which system they should, or would, go with. They were considering two systems called NetHawk and WobbleNet. A committee had been formed consisting of yourself (the Senior Vice President), President Whim, the Legal Department Head Margaret Sharp, the Accounting Department Head Bobby Slack, the Chief Financial Officer Simon Moody, the Human Resources director Francis Joy, and three Junior Vice Presidents: Johnny Clear, Michael Mull, and Molly Keen. On this particular day, you were heading to the big committee meeting where the decision would be made.

Everyone at the *Manifold Company* was nervous about the meeting to decide which networking system the company should go with. You walked in to face the already fully-formed crowd of other committee members. Everyone was at the meeting five minutes early -- a testimony to just how important this meeting was to the company. And indeed it <u>was</u> important; in today's business world, a company *had* to be on top of the computer networking game. This committee would decide the company's future --

by a simple majority vote.

Your role in this meeting was very important; you were the Chair. This means that you wouldn't be required to vote -- unless there was a tie, in which case the entire future of the *Manifold Company* would rest in your hands. However, in any case, your job was to tabulate the votes at the meeting.

Everyone on the committee was responsible for forming some kind of initial opinion on the two computer networking systems. Here's the limited information you had about the two systems prior to the meeting. First, it seemed that NetHawk was a lot more reliable than WobbleNet, but WobbleNet was a tiny bit faster than NetHawk. This information thus suggested that NetHawk *might* be, on the whole, a better system. But this was not a lot of information to go on for making such a big decision; the other committee members may have more information at their disposal.

Segment 3: The Meeting

Explicit Command

Many people in the meeting were talking and their voices mixed and mingled together in that strange way that voices do. Suddenly, the low hum of voices came to an end. All eyes became fixed on President Whim. Somehow, he had the ability to get people's attention without saying a word (perhaps by the peculiar way he raised his eyebrows before he spoke).

The President of the *Manifold Company* spoke after a moment's hesitation that seemed designed for dramatic effect. Everyone in the room hung on his every word.

"Listen, everyone," he began in his deep, rough voice, slowly rolling over each word for emphasis, "it seems clear to me that WobbleNet is the better system; so I think we should go with that. I don't want any disagreement over this."

After a pause, he looked at you. "You," he said, "will tally the votes, and will only vote if there is a tie. I myself won't be voting due to company policy. Remember, the whole company's future rests in your hands -- I'll be very disappointed if people don't vote for WobbleNet. I think we're ready to begin voting; each of you write your vote silently on these secret ballots."

No Explicit Command

Many people in the meeting were talking and their voices mixed and mingled together in that strange way that voices do. Suddenly, the low hum of voices came to an end. All eyes became fixed on President Whim. Somehow, he had the ability to get people's attention without saying a word (perhaps by the peculiar way he raised his eyebrows before he spoke).

The President of the *Manifold Company* spoke after a moment's hesitation that seemed designed for dramatic effect. Everyone in the room hung on his every word.

"Listen, everyone," he began in his deep, rough voice, slowly rolling over each word for emphasis, "I don't want to influence the vote; so I'm not even going to tell you what I think. I want each of you to vote exactly what you think."

After a pause, he looked at you. "You," he said, "will tally the votes, and will only vote if there is a tie. I myself won't be voting due to company policy. Remember, the

whole company's future rests in your hands -- I'll be very disappointed if people don't vote what they really think. I think we're ready to begin voting; each of you write your vote silently on these secret ballots."

Segment 4: The Vote

At this all-important meeting, who would vote for which system? In the story, you got your pen ready to record the votes for posterity, as was your job.

You note the first vote: Margaret Sharp voted "WobbleNet."

Bobby Slack voted "WobbleNet.

Simon Moody also voted "WobbleNet."

Molly Keen: "WobbleNet."

Michael Mull: also "WobbleNet."

Francis Joy, too, voted "WobbleNet."

Johnny Clear voted "WobbleNet."

When the eighth person's vote was added on top of that, the vote was a unanimous 8-0 for WobbleNet. WobbleNet had taken the vote by a clean sweep!

Segment 5: You get a call

Not Under Authority

The very next day after the meeting, you were sitting in your office when the phone rang. "This is Whim," said the unmistakable voice on the other line, "and I wanted to talk to you about a couple of important things. First, there have been a lot of changes on the *Manifold Company* board, which makes a lot of the key decisions around here. Because of this I expect that pretty soon things will be different on the Computer Networking Committee. -- since this is important to you I thought I'd let you know. Second, I'm taking a job at another company, so you won't be answering to me anymore at all. You'll have a new boss that will step in as President, and you'll be answering to *him* -- and to no one else."

Two weeks later you were sitting in your large corner office at the *Manifold Company* admiring your nice view when, suddenly, a man burst into your office. It was your new boss, President Kirk Caprice. He quickly informed you of your most pressing duty. "We really need to upgrade our computer network," said Caprice, "and we're going to purchase either WobbleNet or NetHawk."

Caprice then frowned slightly. "I know you're probably thinking that the committee's vote has already decided the matter. But things have changed now. The committee's decision doesn't matter anymore. We pay our Senior Vice President big money; since you're the Chair of the Computer Networking Committee, we expect you to make these decisions on your own. So it's up to you to decide.

Thus, despite the fact that you've never even used either system, this huge decision came entirely down to yourself. What you will do?

Under Authority

The very next day after the meeting, you were sitting in your office when the

phone rang. "This is Whim," said the voice on the other line, "and I wanted to talk to you about a couple of important things. First, there have been a lot of changes on the *Manifold Company* board, which makes a lot of the key decisions around here. Because of this I expect that pretty soon things will be different on the Computer Networking Committee -- since this is important to you I thought I'd let you know. Second, I wanted to remind you that, no matter what these changes on the committee are, I'm still your · boss, and you'll be answering to *me* -- and no one else -- just like before."

Two weeks later you were sitting in your large corner office at the *Manifold Company* admiring your nice view when, suddenly, a man burst into your office. It was your boss, President Maximillian Whim. He quickly informed you of your most pressing duty. "We really need to upgrade our computer network," said Whim, "and we're going to purchase either WobbleNet or NetHawk."

Whim then frowned slightly. "I know you're probably thinking that the committee's vote has already decided the matter. But things have changed now. The committee's decision doesn't matter anymore. We pay our Senior Vice President big money; since you're the Chair of the Computer Networking Committee, we expect you to make these decisions on your own. So it's up to you to decide."

Thus, despite the fact that you've never even used either system, this huge decision came entirely down to yourself. What will you do?

Appendix D: Studies 3 and 4 Dependent/Attribution Measures

Please circle the answer to the following question:

1. Based on this story, which of the two systems would you decide to purchase for the company? (Please circle one) <u>WobbleNetHawk</u>

Please write a 1-4 sentence answer to each of the following questions:

2. Why would you choose the system you circled in #1?

3. Why do you think that the committee members all voted for <u>WobbleNet</u>?

Please circle which number (from 1-9) best represents your answer to each of the following questions:

1. What is the likelihood that you would choose <u>WobbleNet</u> as the system your company would buy?

    Not at all likely   Very Likely
              1   2   3   4   5   6   7   8   9

2. What is the likelihood that you would choose <u>NetHawk</u> as the system your company would buy?

    Not at all likely   Very Likely
              1   2   3   4   5   6   7   8   9

3. Based on your own beliefs, what rating would you give the <u>WobbleNet</u> system on a scale from 1-9?

    Very Poor   Excellent
              1   2   3   4   5   6   7   8   9

4. Based on your own beliefs, what rating would you give the <u>NetHawk</u> system on a scale from 1-9?

    Very Poor   Excellent
              1   2   3   4   5   6   7   8   9

5. To what degree do you think the unanimous vote in favor of <u>WobbleNet</u> occurred because <u>WobbleNet</u> is, in reality, the better system?

    Not at all   A great deal
              1   2   3   4   5   6   7   8   9

6. To what degree do you think that the committee members voted for <u>WobbleNet</u>

because they each <u>really believed</u> that <u>WobbleNet</u> was the better system?
<div style="text-align:center">

Didn't believe at all   Believed a great deal

1   2   3   4   5   6   7   8   9
</div>

7. To what degree do you think that the committee's unanimous vote in favor of <u>WobbleNet</u> occurred because of the influence of President Whim?
<div style="text-align:center">

Not at all   A great deal

1   2   3   4   5   6   7   8   9
</div>

Appendix E: Culture and Personality Questionnaires

Vancouver Index of Acculturation (Ryder, Alden, & Paulhus, in press):

The questions below ask about your friendships, values, and activities. Please answer each question as carefully as possible. Using the key below, please circle *one* of the numbers to the right of each question.

Many of these questions will refer to your *heritage culture*, meaning the culture which you feel has influenced you most, *other than* North American culture. It may be the culture of your birth, the culture in which you have been raised, or another culture which forms part of your background. If there are several such cultures, please indicate the culture which has influenced you *most* (e.g., Irish, Chinese, German). If you do not feel that you have been influenced by any other culture, please try to identify a culture that may have had an impact on previous generations of your family.

Other questions will refer to 'North American' people, meaning those individuals who have been born in Canada or the United States, and whose cultural heritage is mostly European. Please use the following key to help guide your answers.

--- **The left-hand numbers (1,2,3) should be used if you mostly disagree with the statement or if the statement is rarely true for you.**

--- **The center numbers (4,5,6) should be used if you somewhat agree with the statement or if the statement is sometimes true for you.**

--- **The right-hand numbers (7,8,9) should be used if you mostly agree with the statement or if the statement is very often true for you.**

---

1. Please write your *heritage culture* in the space provided (see above description):_____
2. I often participate in *heritage* cultural traditions.   1 2 3 4 5 6 7 8 9
3. I often participate in North American cultural traditions.   1 2 3 4 5 6 7 8 9
4. I would be willing to marry a person from my *heritage culture*.   1 2 3 4 5 6 7 8 9
5. I would be willing to marry a North American person.   1 2 3 4 5 6 7 8 9
6. I enjoy social activities with people from the same *heritage culture* as myself.   1 2 3 4 5 6 7 8 9
7. I enjoy social activities with North American people.   1 2 3 4 5 6 7 8 9
8. I am comfortable interacting with people of the same *heritage culture* as myself.   1 2 3 4 5 6 7 8 9
9. I am comfortable interacting with North American people.   1 2 3 4 5 6 7 8 9
10. I enjoy entertainment (e.g. movies, music) from my *heritage culture*.   1 2 3 4 5 6 7 8 9
11. I enjoy North American entertainment (e.g. movies, music).   1 2 3 4 5 6 7 8 9
12. I often behave in ways that are typical of my *heritage culture*.   1 2 3 4 5 6 7 8 9
13. I often behave in ways that are 'typically North American."   1 2 3 4 5 6 7 8 9
14. It is important for me to maintain or develop the practices of my *heritage culture*.   1 2 3 4 5 6 7 8 9
15. It is important for me to maintain or develop North American cultural practices.   1 2 3 4 5 6 7 8 9
16. I believe in the values of my *heritage culture*.   1 2 3 4 5 6 7 8 9
17. I believe in North American values.   1 2 3 4 5 6 7 8 9
18. I enjoy the jokes and humor of my *heritage culture*.   1 2 3 4 5 6 7 8 9
19. I enjoy North American jokes and humor.   1 2 3 4 5 6 7 8 9
20 I am interested in having friends from my *heritage culture*.   1 2 3 4 5 6 7 8 9
21. I am interested in having North American friends.   1 2 3 4 5 6 7 8 9

Interpersonal Orientation Scale (Hill, 1987):

Please indicate the extent to which you agree with each of the following statements as it pertains to yourself. Indicate your agreement by using a 5-point scale: 5 denotes the strongest agreement; 1 denotes the strongest disagreement; 2, 3, and 4 represent intermediate levels of agreement. To indicate your level of agreement, write a number from 1 to 5 in the blank preceding each statement.

_____ 1. If I feel unhappy or kind of depressed, I usually try to be around other people to make me feel better. (ES)

_____ 2. I usually have the greatest need to have other people around me when I feel upset about something.(ES)

_____ 3. One of my greatest sources of comfort when things get rough is being with other people. (ES)

_____ 4. When I have not done very well on something that is very important to me, I can get to feeling better simply by being around other people. (ES)

_____ 5. During times when I have to go through something painful, I usually find that having someone with me makes it less painful. (ES)

_____ 6. It seems like whenever something bad or disturbing happens to me I often just want to be with a close, reliable friend. (ES)

_____ 7. I often have a strong need to be around people who are impressed with what I am like and what I do. (AT)

_____ 8. I mainly like to be around others who think I am an important exciting person. (AT)

_____ 9. I often have a strong desire to get people I am around to notice me and appreciate what I am like. (AT)

_____ 10. I mainly like people who seem strongly drawn to me and who seem infatuated with me. (AT)

_____ 11. I like to be around people when I can be the center of attention. (AT)

_____ 12. I don't like being with people who may give me less than positive feedback about myself. (AT)

_____ 13. I think being close to others, listening to them, and relating to them on a one-to-one level is one of my favorite and most satisfying pastimes. (PS)

_____ 14. Just being around others and finding out about them is one of the most interesting things I can think of doing. (PS)

_____ 15. I feel like I have really accomplished something valuable when I am able to get close to someone. (PS)

_____ 16. One of the most enjoyable things I can think of that I like to do is just watching people and seeing what they are like. (PS)

_____ 17. I would find it very satisfying to be able to form new friendships with whomever I liked. (PS)

_____ 18. I seem to get satisfaction from being with others more than a lot of other people do. (PS)

_____ 19. I think it would be satisfying if I could have very close friendships with quite a few people. (PS)

_____ 20. The main thing I like about being around other people is the warm glow I get from contact with them. (PS)

_____ 21. I think I get satisfaction out of contact with others more than more people realize. (PS)

_____ 22. When I am not certain about how well I am doing at something, I usually like to be around others so I can compare myself to them. (SC)

_____ 23. I find that I often look to certain other people to see how I compare to others. (SC)

_____ 24. If I am uncertain about what is expected of me, such as on a task or in a social situation, I usually like to be able to look to certain others for cues. (SC)

_____ 25. I prefer to participate in activities alongside other people rather than by myself because I like to see how I am doing on the activity. (SC)

_____ 26. I find that I often have the desire to be around other people who are experiencing the same thing I am when I am unsure of what is going on. (SC)

Note: ES = Emotional Support subscale; AT = Attention subscale; PS = Positive Stimulation Subscale; SC = Social Comparison subscale

Personal Need for Structure scale (Thompson et al., 1992):

Read each of the following statements and decide how much you agree with each according to your attitudes, beliefs, and experiences. Place your rating in the space to the left of each statement. Please respond according to the following scale:

1 Strong disagreement
2 Moderate disagreement
3 Slight disagreement
4 Neither disagreement nor agreement
5 Slight agreement
6 Moderate agreement
7 Strong agreement

_____ 1. It upsets me to go into a situation without knowing what I can expect from it.

_____ 2. I'm not bothered by things that interrupt my daily routine.

_____ 3. I enjoy having a clear and structured mode of life.

_____ 4. I like to have a place for everything and everything in its place.

_____ 5. I enjoy being spontaneous.

_____ 6. I find that a well-ordered life with regular hours makes my life tedious.

_____ 7. I don't like situations that are uncertain.

_____ 8. I hate to change my plans at the last minute.

_____ 9. I hate to be with people who are unpredictable.

_____ 10. I find that a consistent routine enables me to enjoy life more.

_____ 11. I enjoy the exhilaration of being in unpredictable situations.

_____ 12. I become uncomfortable when the rules in a situation are not clear.

Epistemological Source Questionnaire (Conway, 2000):

Please answer the following questions by writing a number from 1 to 7 depicting how much you agree with the statement, where 1 = "strongly disagree," 4 = "neither agree nor disagree," and 7 = "strongly agree."

	Strongly Disagree					Strongly Agree	
	1	2	3	4	5	6	7

_____1. My beliefs are very similar to those of my closest friends. (O)

_____2. When I make a decision or judgment, I want to be sure that it's based mostly in things I've learned for myself. (S)

_____3. I trust that the opinions of my family members are mostly true. (O)

_____4. I like to learn things on my own, without too much help from others. (S)

_____5. I believe that most of what my professors teach is right. (O)

_____6. When I have serious questions about life, the answers are often shown to me by a close friend or family member. (O)

_____7. I am not easily influenced by others. (S)

_____8. Of the things that I know, I learned most of them from competent authorities. (O)

_____9. I think I generally see things as they really are, unclouded by others' biases. (S)

_____10. I find that other people are valuable sources of knowledge. (O)

Note: O= Other subscale; S = Self subscale

Aspects of Identity IIIx Questionnaire (Cheek & Tropp, 1994):

These items describe different aspects of identity. Please read each item carefully and consider how it applies to you. Fill in the blank next to each item by choosing a number from the scale below.

1 = Not important to my sense of who I am
2 = Slightly important to my sense of who I am
3 = Somewhat important to my sense of who I am
4 = Very important to my sense of who I am
5 = Extremely important to my sense of who I am

_____1. The things I own, my possessions (P)
_____2. My personal values and moral standards (P)
_____3. My popularity with other people (S)
_____4. Being a part of the many generations of my family (C)
_____5. My dreams and imagination (P)
_____6. The ways in which other people react to what I do (S)
_____7. My race or ethnic background (C)
_____8. My personal goals and hopes for the future (P)
_____9. My physical appearance: My height, my weight, and the shape of my body (S)
_____10. My religion (C)
_____11. My emotions and feelings (P)
_____12. My reputation, what others think of me (S)
_____13. Places where I live or where I was raised (C)
_____14. My thoughts and ideas (P)
_____15. My attractiveness to other people (S)
_____16. My age, belonging to my age group or being part of my generation (C)
_____17. The ways I deal with my fears and anxieties (P)
_____18. My role as a student in college (S)
_____19. My feeling of being a unique person, being distinct from others (P)
_____20. My social class, the economic group I belong to whether lower, middle, or upper class (C)
_____21. Knowing that I continue to be essentially the same inside even though life involves many external changes (P)
_____22. My gestures and mannerisms, the impression that I make on others (S)
_____23. My feeling of belonging to my community (C)
_____24. My self-knowledge, my ideas about what kind of person I really am (P)
_____25. My social behavior, such as the way I act when meeting people (S)
_____26. My feeling of pride in my country, being proud to be a citizen (C)
_____27. My physical abilities, being coordinated and good at athletic activities (P)
_____28. My personal self-evaluation, the private opinion I have of myself (P)
_____29. Being a sports fan, identifying with a sports team (C)
_____30. My occupational choice and career plans (P)
_____31. My commitments on political issues or my political activities (C)
_____32. My academic ability and performance, such as the grades I earn ad comments I get from teachers (S)
_____33. My language, such as my regional accent or dialect or a second language that I know (C)
_____34. My sex, being a male or a female (C)

Note: P = Personal Identity Subscale; S = Social Identity Subscale; C = Collective Identity Subscale

General Background Questions (used for Culture and Gender categorizations):

1. Age:_____

2. Circle either: Male or Female

3. Ethnic Background:_____

4. Language(s) spoken in order of fluency:

        (a)_____

        (b)_____

        (c)_____

5. Place of birth:_____

6. Father's place of birth:_____

7. Mother's place of birth:_____

8. How long have you lived in Canada?_____

9. Where did you live prior to moving to Canada, and how long did you live there?_____

10. If you are from another country, do you plan on returning to your country of origin at some point later in your life?   Circle either: Yes or No

11. From birth until now, how many total years of education have you had? _____

12. From birth until now, how many total years of education have you had in a Western, English-speaking country? _____

13. Faculty of Study (e.g., Arts, Science): _____

14. Area or Department that you intend to major in (e.g., Psychology, History, Chemistry): _____

15. Year of study at university (i.e., are you a 1st year student, 2nd year student, etc.?):_____