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By

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Committee in charge:

Professor Cameron Anderson, Chair

Professor Jennifer Chatman

Professor Leif Nelson

Professor Dacher Keltner

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ABSTRACT

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Loyalty, the ultimate virtue to some and the most dangerous vice to others, has motivated men to action and shaped social relations throughout the ages. But, loyalty as a moral construct has been relatively ignored by psychologists and organizational scholars. In this dissertation I aim to show that of all the constructs related to interpersonal connectedness, loyalty is unique in that it acts as a moral principle in human psychology, and thus is an especially powerful driver of human behavior. Moreover, loyalty is unique among moral principles in having a dual aspect promoting both ethicality and fostering corruption.

I examine the effects of loyalty on unethical behavior in contexts in which there is a temptation to act unethically. Specifically, I investigate whether loyalty can prompt people to cheat less even when cheating would benefit their groups. I identify ethical salience as a mediating mechanism and competition as a moderating variable for the relationship between loyalty and ethicality. I test whether loyalty is unique among moral principles in prompting people to act both more and less ethically depending on competition and whether the loyalty prompts the loyal to judge their own unethical actions as moral. I conducted 11 studies to test loyalty's role as a moral principle in human psychology.

In the first chapter, I provide a roadmap for this dissertation that (a) highlights how I conceive of loyalty and unethical behavior, (b) outlines the key hypotheses that will be tested, and (c) summarizes the findings from the 11 studies. In Chapter 2, I provide a theory for the moral psychology of loyalty and develop six hypotheses to be tested.

Chapters 3 thru 7 include the methods and results for the 11 studies. In Chapter 3, the first two laboratory studies (1A and 1B) find evidence that loyalty to a group can reduce cheating even when cheating would benefit the group. In Chapter 4, two field studies (2A and 2B) demonstrate that the effects of loyalty on cheating generalize to other unethical behaviors and to existing social relationships in which loyalty is an implicit or explicit expectation. In Chapter 5, two studies (3A and 3B) identify ethical salience as a mediating mechanism for the effects of loyalty on cheating. In Chapter 6, I find evidence that competition moderates the effects of loyalty on cheating in three studies (4, 5A and 5B) conducted in the field and using an online

pool of participants. Finally, in Chapter 7, two studies (6A and 6B) provide evidence loyalty might be unique among ethical principles in fostering both ethicality and corruption.

In summary, this dissertation builds on recent advances in moral psychology to emphasize the importance of loyalty to individual psychology. It contributes to existing research on behavioral ethics, which has identified several factors that lead even good people to engage in unethical behavior. By providing a definition of loyalty that is consistent with its conception as an ethical principle and its manifest partial nature, I help to differentiate loyalty from related constructs. The studies included in this dissertation represent the first research to demonstrate that loyalty affects *actual* ethical behavior. In contrast to headlines and the prevailing paradigm in moral philosophy that paints loyalty as inherently biasing and corruptive, this research demonstrates that loyalty can also promote ethicality. But this finding comes with an important caveat. When the goals of loyalty are made clear and those goals conflict with other ethical concerns, loyalty can bind the loyal to unethical actions and blind the loyal to the consequences of those actions. The loyal and those who demand loyalty beware: loyalty can be a force for good and bad.

TABLE OF CONTENTS

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CHAPTER 1

Roadmap for this dissertation

Loyalty, the ultimate virtue to some and the most dangerous vice to others, has motivated men to action and shaped social relations throughout the ages. But, loyalty as a moral construct has been relatively ignored by psychologists and organizational scholars. In this dissertation I aim to show that of all the constructs related to interpersonal connectedness, loyalty is unique in that it acts as a moral principle in human psychology, and thus is an especially powerful driver of human behavior. Moreover, loyalty is unique among moral principles in having a dual aspect promoting both ethicality and fostering corruption.

Conceiving loyalty

Organizational scholars have long studied the effects of loyalty and numerous constructs related to loyalty that help characterize the strength of interpersonal bonds – constructs such as commitment (e.g. Allen & Meyer, 1990; Becker, 1960; Etzioni, 1961; Gould, 1979; Hall, Schneider, & Nygren, 1970; Kidron, 1978; Klein, Molloy & Brinsfield, 2012; Meyer & Allen, 1984; Meyer, Becker & Van Dick, 2006; Morrow, 1983; Mowday, Steers & Porter, 1979; O'Reilly & Chatman, 1986; Porter, Steers, Mowday & Boulian, 1974; Sheldon, 1971), identification (e.g. Abrams and Hogg, 1988; Fielder, 1992; Gould, 1975; Mael & Ashforth, 1990; Tajfel & Turner, 1986; Turner, 1982), liking (e.g. Rubin, 1973; Seligman, Fazio & Zanna, 1980: 454), and love (e.g., Gottman, 1999; Sternberg, 1986).

Loyalty is often treated as synonymous with these related constructs, and used to imply that what is being studied is important and has meaningful consequences (Coughlan, 2005). Unsurprisingly, a review of the literature reveals a panoply of definitions of loyalty (e.g., Duska, 1990, Hirschman, 1970; Jeurissen, 1997; Ladd, 1967; Nietzch, 1908; Oldenquist, 1982; Powers, 2000; Scott, 1965) ranging "from [the] specific to broad, and captur[ing] attitudes and behaviors involving a variety of foci" (Coughlan, 2005). A consistent definition of loyalty has yet to emerge (Guido-DiBrito, 1995) making it difficult to assess what the effects of loyalty are or whether they are indeed meaningful.

In this dissertation I draw on advances in moral psychology to advance a definition of loyalty that helps to differentiate it from related constructs. Moral psychologists (e.g. Haidt & Joseph, 2007) have proposed that loyalty is inherently moral, one of a few innately prepared moral foundations that guide and govern human psychology. This moral conception of loyalty is consistent with a number of definitions of loyalty that allude to its ethical nature (Allport, 1933; Fiske, 1991; Shweder, Much, Mahapatra & Park; 1997). I argue that this conception of loyalty as inherently moral helps to differentiate it from related constructs. That is not to say that related constructs such as commitment do not have ethical components, nor that loyalty is just about morality, but that morality lies at the heart of loyalty but not at the heart of these other related constructs. That is, when people act out of a duty of loyalty, it is because they believe such actions are right, regardless of whether they like, identify with or are committed to the object of loyalty.

I define loyalty as *the principle of partiality towards an object* which gives rise to expectations of behavior on behalf of the object of loyalty. Principles are "basic truths, laws or assumptions," moral principles are "principles of right and wrong that are accepted by an individual or a social group," partiality refers to "favorable prejudice or bias," and objects are "something perceptible by one or more of the senses …" (Free Dictionary).

This definition highlights loyalty's inherent partiality (e.g., Butler, 1991; Duska, 1990; Hirschman, 1970; Ladd, 1967). It assumes that an array of (and a minimum of two) comparable objects exist which includes the object of loyalty, and it implies that an individual expresses bias towards the object of his/her loyalty (compared to other objects) and accepts such bias as morally right.

Loyalty involves partiality both in the sense that some objects are preferred to other objects and in the sense that the object may require self-sacrifice. The nature of the object and the expression of bias depend on both the individual and the context in which loyalty arises. For example, in business contexts the object of loyalty may refer to an organization expressed by its "brand image" (e.g. Corvino, 2002; Oliver, 1999), or to the collection of people employed by that organization or a smaller group of people within the firm such as a workgroup or functional unit (e.g. Connor, 2010; Fielder, 1992; Schrag, 2001; Vandekerckhove & Commers, 2004).

Loyalty manifests in "Loyalties," or relationships between the self and the object of one's loyalty. The "Loyal" or "Loyalists" are those who subscribe to the principle of loyalty with respect to specific objects. These perceived loyalties give rise to expectations of behavior for the focal actor (e.g. self-sacrifice) and for those perceived to share that loyalty (Hirschman, 1970; Schrag, 2001). Loyalty can be conceived of as an expectancy belief about how one should behave (Bowlby, 1982; Thomas & Ravlin, 1995) that is inculcated in cognition as elements of the ideal self-schema (Meglino & Ravlin, 1998; Schlenker & Weigold, 1989) and which is imbued with morality (Fletcher, 1993; Greene, 2014; Haidt & Joseph, 2004; Oldenquist, 1982, Royce, 1908).

Imbued with morality, loyalty compels action on behalf of the object of loyalty, particularly when the object or substance of loyalty is threatened. Disloyalty, (e.g. betrayal, adultery, idolatry) arises when those perceived to share a loyalty fail to meet minimum expectations of behavior. Loyalty's conation to act (e.g. Baron, 1984: 10; Connor, 2010: 279; Ewin, 1992: 419; Hirschman, 1970; Nietzch, 1908; Royce, 1908) is inherent in Hirschman's treatise on Exit, Voice and Loyalty (Hirschman, 1970; Barry, 1974; Borroff & Lewin, 1997) and Oliver's (1999: 35-36) Attitude-Based Framework of Loyalty.

Loyalty as a force for good or bad

Organizational scholars have studied the consequences of loyalty on employee behaviors such as trust, cooperation, pro-sociality, voice, remaining with the company, meaning at work, and adherence to company rules (Hirschman, 1970; Rosanas & Velilla, 2003; Powers, 2000) and much of this research paints loyalty as being valuable to both the company and employee. This positive view of loyalty is consistent with loyalty's role as a virtue in business (Altman, 2008;

Reichheld, Markey & Hopton, 2000; Souryal & McKay, 1996; Webber, 1998) and social relations more broadly (e.g., Coleman, 2009; Felten, 2012).

Yet, headlines of corporate scandals, political machinations and sports cheating highlight that loyalty is inherently pernicious and corrupting. This darker view of loyalty is consistent with the dominant view in moral philosophy that paints loyalty as inherently biased and inconsistent with universalist conceptions of morality such as Bentham and Stuart-Mill's Utilitarianism and Kant's Deontology.

So which is it? Is loyalty a force for good or bad? In this dissertation I will examine the effects of loyalty on unethical behavior in contexts in which there is a temptation to act unethically. If loyalty is used as an ethical principle in lay psychology, then when it comes into conflict with other ethical principles the loyal may be prompted to act more ethically and ignore their loyal duties or feel compelled to act unethically (with respect to other ethical principles) and act loyally.

Conceiving unethical behavior

Unethical behavior has been defined as behavior that has a harmful effect upon others and is "either illegal or morally unacceptable to the larger community" (Brass, Butterfield & Skaggs, 1998; Jones, 1991). Examples of unethical behaviors include violations of ethical norms or standards, stealing, cheating, lying, or other forms of dishonesty (Gino & Pierce, 2009). In this dissertation I focus on cheating and lying, two of the most commonly studied forms of unethical behavior.

Cheating comprises "acting dishonestly or unfairly in order to gain an advantage" (Meriam-Webster Dictionary; Cambridge Dictionary) and is a commonly studied form of unethical behavior (Ayal & Gino, 2011; Bing, et al., 2012; Gino, Ayal & Ariely, 2009) which adversely affects many of our organizations and institutions (McCabe, Trevino, & Butterfield, 2001; Perrow, 1972).

Lying is behavior that is "marked by or containing falsehoods" (Meriam-Webster Dictionary; Cambridge Dictionary) and is also a commonly studied form of unethical behavior (e.g. DePaulo, Kashy, Kirkendol, Wyer & Epstein, 1996; Ekman, Friesen & O'Sullivan, 1988; Gneezy, 2005).

Conceiving fairness and honesty

To assess the uniqueness claim of loyalty I compare loyalty to two of the most commonly espoused ethical principles and moral values including fairness and honesty. In addition to being commonly espoused moral values, fairness and honesty are also closely related to loyalty. All three values appear in Schwartz's (1992) list of moral values: honesty appears within the same value cluster of Benevolence as loyalty while fairness in the forms of equality and social justice falls within the closely related neighboring cluster of Universalism. And by selecting values that are closely related to loyalty I make a conservative test of my hypotheses (see below). That is, if neither fairness nor honesty drives corruption (in the way that loyalty does) then it is unlikely that any other distantly related value would either.

Fairness is defined as the quality of treating people equally or in a way that is right or reasonable, i.e., in a way that is free from self-interest, prejudice, or favoritism (Meriam-Webster dictionary; Cambridge-English dictionary). Fairness appears in many lists of moral values and virtues (e.g., Josephson, 1993; Meara, Schmidt & Day, 1996; Nash, 1990; Schwartz, 1992; Walton, 1988; Whetsone, 1993) including Moral Foundation Theory's typology of moral principles (Graham, Nosek, Haidt, Iyer, Koleva, & Ditto, 2011; Haidt & Graham, 2007; Graham, Haidt, Koleva, Motyl, Iyer, Wojcik & Ditto, 2013) and is embraced by both conservatives and liberals (Graham, Haidt & Nosek, 2009)

Honesty is the quality of being truthful (Meriam-Webster dictionary; Cambridge-English dictionary). Honesty also appears in may lists of moral values (e.g. Nash, 1990; Meara, Schmidt & Day, 1996; Schwartz, 1992; Whetsone, 2003) and has been reliably classified as one of eight moral events that people describe in their daily lives (Hofmann, Wisneski, Brandt & Skitka; 2014).

Hypotheses

In this dissertation I propose that loyalty acts as an ethical principle in human cognition but is unique among ethical principles in having a dual aspect prompting people to act both more and less ethically depending on the context. For example, to behave in ways that benefit the object of one's loyalty while harming others or acting dishonestly. I develop theory in support of six hypotheses (see Chapter 1). In the absence of competition (i.e., when goal the goal of helping the target of one's loyalty is less salience is low), loyalty will prompt the loyal to act more ethically (hypothesis 1) because it will make salient the ethics of the situation in the mind of the loyal actor (hypothesis 2). In contrast, group identification (a construct closely related to loyalty) will prompt people to act more or less ethical (hypothesis 3). Goal salience will moderate these effects such that when competition is high –i.e., when the goal of helping the target of one's loyalty is more salient–the loyal imperative will drive the loyal to act less ethically (hypothesis 4). Further I propose that this dual aspect is unique to loyalty in that other ethical principles will not prompt people to act less ethically (hypothesis 5). Finally, I propose that the loyal will judge their actions as more moral and ethical even when such action conflict with other moral concerns (hypothesis 6) providing additional support that loyalty acts as an ethical principle in human psychology.

Overview of studies

I conducted 11 studies to test these hypotheses. In studies 1A and 1B (see Chapter 3), I tested the first hypothesis that when group concerns are unclear, the salience of loyalty will increase ethical behavior as compared to when loyalty is not salient. In studies 1A and 1B, I found that fewer participants who had pledged their loyalty to their groups cheated on a problem solving task (Study 1A: 20%, Study 1B: 15%) as compared to participants in control conditions (Study 1A: 44%, Study 1B: 43%) even though cheating would have benefitted the group (supporting hypothesis 1). Additional analyses found no evidence that differences in liking or group identification explained or moderated the effects of loyalty on cheating in study 1B (not supporting hypothesis 3).

Studies 2A and 2B (see Chapter 4) examined the generalizability of the effects of loyalty on unethical behavior by using an alternative measure of loyalty (i.e., self-reported loyalty to a group) based on existing loyalties to groups that people already held, namely fraternities (Study 2A) and study groups (Study 2B) and by examining an additional measure of unethical behavior (whistle blowing intent). I found that those more loyal to their fraternities or to their study groups were less likely to cheat and more likely to blow the whistle on unethical behavior even though doing so would harm their groups, thus providing additional support for hypothesis 1. Again, additional analyses found no support for hypothesis 3, i.e., liking, group identification, commitment, and self-reported general ethical behavior did not explain the effects of loyalty on unethical behavior.

To identify a potential mediator for the relationship between loyalty and unethical behavior I returned to the lab in studies 3A and 3B (see Chapter 5). Using a word-completion task I found that ethical salience mediated the effects of loyalty on less cheating (in support of hypothesis 2) whether loyalty is an explicit pledge (both studies) or merely an implicit promise (study 3B). That is, loyalty makes the ethics of a situation more salient, which in turn reduces an individual's propensity to cheat.

In Studies 4, 5A and 5B (see Chapter 6), I tested the third hypothesis regarding the role of competition as a potential moderator for the relationship between loyalty and unethical behavior. In study 4, members of four fraternities were randomly assigned to receiving one of two messages from their house presidents (the competition manipulation) before completing the same problem-solving task used in prior studies. In support of hypothesis 3, I found that loyalty to the house was significantly related to less cheating when the salience of competition was low, but when competition was high, those more loyal to their fraternities cheated more.

In studies 5A and 5B, I sought to conceptually replicate and generalize the findings of Study 4 by conducted a study using participants from an online subject pool (Amazon Mechanical Turk). I randomly assigned participants to both treatment conditions (i.e., loyalty vs. control and competition vs. control) and manipulated competition in a similar manner to that used in Study 4. I found that competition again moderated the effects of loyalty on cheating providing in both studies providing further support for Hypothesis 3, i.e., loyalty was significantly related to less cheating when competition was low, but not when competition was high.

To test whether the loyalty is unique among ethical principles in prompting both ethical and unethical behavior, I expanded the scope of the online studies 5A and 5B to include additional conditions in study 6A (see Chapter 7) so that participants were primed with considerations of either loyalty, fairness, honesty or sanctity. I found that in the absence of competition both loyalty and honesty prompted participants to cheat less than those in the control condition whereas there were no significant differences in the percentages of participants cheating in the fairness, sanctity and control conditions. In support of hypothesis 5, competition moderated the effects of loyalty on cheating but not the effects of any other ethical principle on cheating.

In study 6B I returned to the lab to rule out an alternative explanation for the uniqueness effects found in study 6A – i.e., whether or not the act of pledging drove our effects rather than pledging loyalty. Participants in all three group discussion conditions pledged their loyalty (loyalty condition), impartiality (fairness condition) or participation (control condition) before completing the problem solving game used in prior studies and a task prompting people to lie. Participants also rated the ethicality of their actions. The results of study 6B lend additional support to hypothesis 5, that loyalty is unique in driving unethical behavior under conditions of competition, and help to rule out the alternative explanation that the effects are due to pledging rather than loyalty itself.

A second aim of study 6B was to test hypothesis 6 that loyal action is seen as moral by the loyal even when such action conflicts with other moral concerns. We did indeed find that the loyal judge their actions as moral even when those actions conflict with other ethical concerns such as honesty providing support for hypothesis 6 and further evidence in support of the idea that loyalty acts as an ethical principle in lay theory.

This dissertation proposes that loyalty acts as an ethical principle in human psychology. In contrast to headlines of corporate malfeasance and sports cheating and the prevailing paradigm in moral philosophy that paints loyalty as inherently biasing and corruptive, this research demonstrates that loyalty can also promote ethicality. But this finding comes with an important caveat. When the goals of loyalty are made clear and those goals conflict with other ethical concerns, loyalty can bind the loyal to unethical actions and blind the loyal to the consequences of those actions. The loyal and those who demand loyalty beware: loyalty can be a force for good and bad.

CHAPTER 2

A theory of the moral psychology of loyalty

Loyalty often drives corruption, as highlighted by headlines about corporate scandals, political machinations, sports cheating, and gangland killings. In business and politics, loyalty to one's friends and kin manifests in cronyism and nepotism, often at the cost of actual or perceived competence and fairness (Heilman, Block, and Lucas, 1992; Padgett & Morris, 2000; 2005; though see Slack, 2001). Such ties demand members' collusion (Balan & Dix, 2009; Porter, 2005) and conspiracy to cover up illegality, be it wiretapping by political administrations (e.g., the Nixon White House) or accounting fraud by the corporate elite (e.g., Crazy Eddie's, Enron, and Worldcom). In sports, loyalty promotes gamesmanship, unsportsmanlike conduct, and outright cheating, as evidenced by widespread doping programs uncovered in professional baseball, cycling, and soccer (e.g., Schneider, 2006; Whitaker, Backhouse & Long, 2014). And, in the military, police forces, street gangs, and organizations more broadly, loyalty helps foster cultures of crime by demanding members' silence to others' transgressions (Elliston, 1982; Graham & Keeley, 1992; Hacker, 1978; Jones, 2010; Rothwell & Baldwin, 2007; Skolnick, 2002). As this evidence shows, loyalty seems to pervade and corrupt many aspects of our social lives.

Yet this account of loyalty may be overly simplistic. While loyalty to one's group can encourage unethical behavior, the loyal often act unethically mainly for the benefit of their groups. For instance, when finance directors and accountants misrepresent organizations' performance, it is often for the benefits of shareholders or clients (Dies & Giroux, 1992; Mautz & Sharaf, 1961). Similarly, politicians filibuster for their party to prevent opposition legislation from being enacted, and school administrators inflate students' test scores to get bonus money for their schools (Jacob & Levitt, 2003).

Moreover, unethical behavior is not the sole purview of the loyal. People who care about morality often act unethically for the benefit of others (e.g., Gino & Pierce, 2009; 2010; Wiltermuth, 2011) but don't view themselves or their actions as immoral (Ashforth & Anand, 2003; Benson, 1985) and tend to discount, rationalize, or justify the unethical actions of other members of their groups (Valdesolo & DeSteno, 2007).

Surprisingly, little is known about what motivates group members to engage in unethical behavior for the benefit of their groups (Kish-Gephart, Harrison & Trevino, 2010). Prior work has shown that people act unethically if they both identify with their groups and hold strong reciprocity beliefs (Umphress, Bingham & Mitchell, 2010); if they have a high need to belong but fear exclusion (Thau, Derfler-Rozin, Pitesa, Mitchell & Pillutla, 2015); if they are in positions of positive inequity and feel guilty (Gino & Pierce, 2009); or if they hold utilitarian ethical beliefs and believe that the beneficiaries of their unethical acts hold similar beliefs (Wiltermuth, Bennett & Pierce, 2013). But little is known about whether, why, and when loyalty to one's group motivates unethical behavior, such as unfair actions (Dungan, Waytz & Young, 2014).

Consistent with anecdotal evidence suggesting that loyalty plays an important role in corruption, people discount or ignore their immoral actions when it benefits their groups. Yet there is also good reason to believe that loyalty can actually foster ethicality in addition to being detrimental to it. Loyalty is among a broad set of moral values that people embrace (Fiske; 1991; Haidt & Joseph, 2007; Shweder, Much, Mahapatra & Park; 1997). Enshrined in national oaths of allegiance, military mottos, and business cultures, loyalty is often cast as a virtue to aspire to (e.g., Coleman, 2009; Connor, 2007; Reichheld & Teal, 2001; Souryal & McKay, 1996) and as being closely related to other moral values, such as honesty and benevolence (Schwartz, 1992). Loyalty promotes good citizenship behavior, prompting people to voice their concerns (Hirschman, 1970) and help others in their community (Powers, 2000; Rosanas & Vellila, 2003). Cast in this light, loyalty can be seen as a virtue rather than a vice.

Can loyalty foster both ethicality and drive corruption? If so, what conditions determine whether it has positive or negative effects? In the current research, I argue that the answer to this question depends critically on the loyal imperative, that is, whether the interests of the group to which the decision maker is a member are clear and conflict with his or her other moral concerns. While existing literature suggests loyalty and related constructs lead to unethical behavior (e.g., Thau et al., 2015; Umphress et al., 2010; Waytz, Young and Ginges, 2014), I argue that when a group's interests are unclear, loyalty will act as an ethical principle, prompting loyal members to act more ethically by making the ethics of the situation salient. That is, loyalty activates related moral traits and cultural scripts which prompt people to behave ethically. In contrast, when the group's interests are clear and those interests conflict with other moral concerns, then the loyal imperative will drive loyal members to act unethically in the group's best interests (Rosanas & Velilla, 2003; Souryal & McKay, 1996).

In particular, in the present work I consider the effects of competition in helping to clarify group interests while also pitting those interests against other moral concerns. Past research suggests that in simple trust games in the laboratory (Shaw, DeScioli & Olson, 2012) and in actual political, religious, and ethnic conflict and warfare (e.g., Cohen, Montoya & Insko, 2006; Waytz et al., 2014), competition drives the loyal to act unethically to protect their groups, regardless of the consequences. I argue that loyalty imbued with competition represents a particularly explosive combination. Competition helps clarify group goals that often conflict with other moral concerns. Loyalty, in turn, drives up the stakes, demanding the loyal win no matter the cost. However, in the absence of competition, group goals are less clear; as a result, the loyal are prompted to act ethically, consistent with their ideal selves. I consider the effects of loyalty and competition on unethical behavior in the context of cheating, a commonly studied form of unethical behavior (e.g., Ayal & Gino, 2011; Gino, Ayal & Ariely, 2009).

The current research contributes to existing research in a number of ways. First, I provide a clear definition of loyalty that allows us to identify its unique effects on ethical behavior independent of the effects of other relational constructs. Second, by examining the effect of loyalty on actual rather than hypothetical ethical behavior, I provide the first concrete evidence that loyalty is indeed used as an ethical principle to guide behavior. Third, I identify when loyalty leads to ethical behavior and when it leads to unethical behavior, highlighting the role of

competition in undermining honesty. Fourth, I specify why loyalty improves honesty: namely, because pledging loyalty makes salient the ethical considerations of cheating in group contexts. Finally, my methodologies (i.e., using random assignment in the laboratory as well as measuring actual loyalties to existing groups) enable me to make causal inferences about the effects of loyalty on ethical behavior and to generalize my findings to real-world contexts where loyalty is either expected explicitly (e.g., in fraternal organizations) or not (e.g., in study groups).

Conceiving loyalty

Researchers have examined numerous constructs related to loyalty that describe different aspects and attributes of interpersonal bonds, including commitment (e.g., Meyer & Allen, 1991; Mowday, Steers & Porter, 1979; O'Reilly & Chatman, 1986), identification (e.g., Abrams & Hogg, 1988; Mael & Ashforth, 1992; Tajfel & Turner, 1979), liking (e.g., Rubin 1973; Seligman, et al., 1980), and love (Gottman, 1999; Sternberg, 1986). Yet, the study of loyalty as a moral construct has been relatively ignored by psychologists and organizational scholars alike (Coughlan, 2005). This is surprising because, as I argue, none of these related constructs fully capture the ethical nature of loyalty.

Moral psychologists contend that loyalty is an ethical principle. For example, moral foundations theory (Graham, Haidt, & Nosek, 2009; Haidt & Graham, 2007; Haidt & Joseph, 2004, 2007) argues that loyalty is one of five innately prepared foundations of individual psychology (the others being harm, fairness, hierarchy, and sanctity). Loyalty appears implicitly within the moral code of community, one of "the Big Three [codes] of Morality" that Shweder, Much, Mahaputra, and Park (1997) contend drive human action (the others being autonomy and divinity) and within Fiske et al.'s relational models approach to moral action (Fiske, 1991; 1992; 2004; Fiske & Haslam, 2005; Rai & Fiske, 2011). Nonetheless, most definitions of loyalty do not reference its moral aspect (e.g., Dooley & Fryxell, 1999; Hirschman, 1970; Mele, 2001; Powers, 2000; Zdaniuk & Levine, 2001; although, see Allport, 1933; Coughlan, 2005; and Oldenquist, 1982 for exceptions).

Definitions of loyalty stress the construct's inherent partiality, whether as an implicit promise or commitment to a target (e.g., Butler, 1991; Forrest, 1995; Oliver, 1999); devotion, allegiance, or an affective attitude toward an object (e.g., Axinn, 1994; Brewer & Brown, 1998; Duska, 1990; Jeurissen, 1997; Ladd, 1967; Powers, 2000; Scott, 1965); or simply membership in a group (e.g., Ewin, 1992; Hirschman, 1970). Therefore, if loyalty is an ethical principle, as moral psychologists contend, then loyalty is the principle of partiality toward an object (e.g., a group) that gives rise to expectations of behavior on behalf of that object such as sacrifice, trustworthiness, and pro-sociality. Loyalty therefore describes relationships in which an actor believes s/he should act in the best interests of the target of her/his loyalty because it is the right thing to do.

In this research, I focus on loyalty to people, specifically groups, but acknowledge that people can be loyal to other objects, such as a specific person, one's family or country, the institutions and organizations to which one belongs, as well as religious beliefs and abstract ideals (e.g., Fletcher, 1994; Powers, 2000; Royce, 1908; Schrag, 2001). When the object of

loyalty is a person or group, then loyalty is likely to be highly correlated with collectivist constructs related to group membership, such as identification, liking, and commitment toward that person or group. Indeed, these related constructs may be natural antecedents or consequences of loyalty, though in the current work I am agnostic regarding the causal direction. Loyalty, however, imbues these collectivist prosocial motivations with principlism (Batson, 1994; 2010; Batson, Kobrynowicz, Dinnerstein, Kampf, & Wilson, 1997), or the imperative to act in the group's interest because it is the right thing to do. That is not to say that other collectivist constructs may not have a moral component, but simply that morality lies at the heart of loyalty. One can identify, like, and feel committed to a target without believing that acting in the target's interests is the right thing to do. For example, one might identify with Caucasians, or one's friends and acquaintances, and feel committed to those to whom I are indebted based on norms of reciprocity, but that does not mean I feel compelled to act in those groups' interests on moral grounds. Moreover, one can also be loyal without liking, identifying, or even knowing the target of one's loyalty, such as members of one's extended family.

Past research has also described loyalty as an attitude (e.g., Duska, 1990; Graham, 1991; Jeurissen, 1997) or a behavior (e.g., Hirschman, 1970; Rusbult, Farrell, Rogers, & Mainous, 1988; Zdaniuk & Levine, 2001), but I argue that attitudes and behaviors often ascribed to loyalty are natural downstream consequences of loyal relationships.[1]

Loyalty and ethical behavior

If loyalty is an ethical principle, then behavior that is consistent with that principle is ethical by definition. However, in the current research, I will adopt the more commonly used but narrower conception of ethical behavior as that which falls within generally accepted norms of moral behavior (Kish-Gephart et al., 2010). Thus, ethical behavior refers to actions that are consistent with universalist ethical principles such as utilitarianism (Bentham, 1776; 1789; Mill 1859; 1863) and deontology (e.g., Kant, 1781; 1785) that manifest in fairness, justice, honesty, and minimizing harm to the greater good. In this research, I consider situations in which there is a temptation to act unethically.

Loyalty demands the loyal act in the best interests of the object of their loyalty (e.g. their group), but those interests are often unclear. Moreover, the demands of loyalty need not conflict with other moral concerns. In such situations, I argue that loyalty, rather than being a corruptive influence or no influence at all, will foster ethical behavior by making salient the ethics of the situation. That is, loyalty activates related moral traits and cultural scripts which prompt people to behave ethically, consistent with their ideal selves. In the next section, I build on research on moral identity to propose that loyalty is one of the moral traits of a person's core identity. I argue that when loyalty is primed, other related moral traits such as honesty are activated too and these, in turn, prompt people to behave more ethically. Building on research on relational schema, I also argue that loyalty is a universal cultural script that, when salient, influences how people process information automatically and implicitly. However, as I later describe, when the demands of loyalty are clear then the loyal are compelled to comply regardless of the ethical cost of such actions. In short, loyalty's virtue prompts the loyal to act ethically until loyalty's imperative dictates they act otherwise.

Loyalty as a moral trait. Trait-based conceptions of moral identity (e.g., Aquino & Reed, 2002; Reed & Aquino, 2003) assume that moral virtues or traits such as loyalty, compassion, and honesty cluster together as a network of connected components (Kihlstrom & Klein, 1994) and can be more or less central to a person's self-concept (Blasi, 1984; 1993; Markus, 1977). Moreover, a common set of moral traits is central to most people's moral self-concept (Blasi, 1984) and comprises their moral identity (Aquino & Reed, 2002), which likely includes loyalty as well as more universalist principles such as fairness, justice, and honesty (Fiske, 1991; Haidt & Joseph, 2007; Shweder et al., 1997).

Moral traits and a person's moral identity more broadly may have social referents, such as individuals, groups, and abstract ideals (Aquino & Reed, 2002), and may be more or less salient depending on the context (e.g., Abrams, 1994; Forehand, Deshpande & Reed, 2002; Hogg, 1992; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). When one trait is salient, then other related traits are likely to be activated as well in a process of spreading activation (Anderson, 1983). Thus, if loyalty and honesty form part of a person's moral identity, then when loyalty is salient, the connected trait of honesty may be activated as well, prompting the loyal to act more honestly.

Loyalty as a cultural script. Loyalty need not form part of one's core moral identity to influence one's actions. The loyal imperative – to act in the best interests of the group – is universally understood (Connor, 2007) and forms part of our cultural shared system of meaning. The cultural milieu paints loyalty as a virtue to aspire to (Coleman, 2009; Oldenquist, 1982; Souryal & Mckay, 1996 but see also Baron, 1984; Ewin, 1992) and as a value closely related to other virtues, such as benevolence, honesty, and helpfulness (Schwartz, 1992).

These twin aspects of loyalty, both as an imperative and a virtue, may act as cultural scripts prescribing roles that people should act out (e.g., role theory, Stryker & Statham, 1985), particularly when such role schema are activated in some way (Fiske & Taylor, 1984). When loyalty is salient, it may inform the procedural knowledge that a person uses to process information automatically and implicitly as well as the interpersonal scripts that define stereotypical relational patterns among the loyal (Baldwin, 1992).

Such interpersonal scripts are subject to conjoint priming among a person's relational schema more broadly, meaning that when one facet of a person's relational schema is primed (e.g., a person's self-schema as a loyal person), then the other facets of the person's relational schema are also activated (i.e., other schema and interpersonal scripts). And, similar to moral traits, a person's relational schema may be activated by different reference groups (e.g., Baldwin & Holmes, 1987; Greenwald & Breckler, 1985; Schlenker, 1985; Shibutani, 1961) that exert normative control over behavior (Kelley, 1952). Thus, when loyalty is salient (e.g., a person is among his band of brothers, in her sorority, or meeting with representatives of her company), it may influence the person's actions despite not being a part of the person's core moral identity. Whether that action is ethical or not depends on which facet of loyalty is salient. When the group's interests are unclear (i.e., the expectations of loyalty are ill-defined), I argue that loyalty's role as a virtue will take precedence and foster greater ethical behavior by making the ethics of the situation more salient.

Hypothesis 1: When group concerns are unclear, the salience of loyalty will increase ethical behavior as compared to when loyalty is not salient.

Hypothesis 2: When group concerns are unclear, the positive relationship between loyalty and ethical behavior will be mediated by the salience of ethics more generally.

Loyalty and unethical behavior

When the interests of the group are clear, loyalty demands the loyal act in the group's best interests. And when those interests conflict with other moral concerns, then loyalty compels the loyal to act unethically. I examine one context in which the demands of loyalty are clear and often in conflict with other moral concerns, namely competition.

Competition describes situations in which actors or groups vie with one another over scarce resources, situations in which their objective outcomes are opposed (Deutsch, 1949; Porter, 1980; Scherer & Ross, 1990). Prior research suggests that competition may lead to unethical behavior (e.g., Kohn, 1992; Hegarty & Sims, 1978; Perry, Kane, Bernesser, & Spicker, 1990; Vaughan, 1999), but this relationship is not conclusive (see Schwepker, 1999).

Research on rivalry suggests that as the psychological stakes associated with competition increase, so does the propensity for people to act unethically (Kilduff, Galinsky, Gallo, & Read, 2012). Kilduff et al. (2012) conceive of psychological stakes as "the subjective importance placed upon competition outcomes achieved in a given competition (i.e., win or loss)" and rivalry as existing "when the psychological stakes are increased as a result of an existing relationship between the focal actor and target actor independent of objective stakes or other structural or situational characteristics" (Kilduff, Elfenbein & Staw, 2010). I argue that loyalty to one's group also increases the psychological stakes associated with competition and consequently the propensity to act unethically. However, unlike rivalry, loyalty to one's groups is not predicated on the presence of a specific, identifiable opponent or a historical relationship with that adversary. The loyal act on behalf of their group because that is what their loyalty demands, regardless of the cost.

The loyal imperative is clear, but so too are the consequences of failing to meet that obligation. Disloyalty—i.e., "leading others to expect they can count on your loyalty and then betraying that expectation" (Schrag, 2001: 48)—has been called "moral suicide" (Royce, 1908), eliciting disgust (Haidt, 2003), moral outrage (Averill, 1979; Bies, 1987; Steil, Tuchman & Deutsch, 1978), and psychological stress (Rousseau, 1989). The psychological stakes associated with meeting loyal expectations are therefore high; as a result, competition that involves loyalty is more likely to lead to corruption.

Hypothesis 3: Competition will moderate the effects of loyalty on ethical behavior such that when competition is high (vs. low), the loyal will act less (more) ethically.

Loyalty and group identification

Loyalty to a group naturally causes us to categorize people as either sharing the same loyalty or not. Such categorization encourages group identification (Tajfel & Turner, 1979; 1986;

Tajfel, 1982) and favorable social comparison of the ingroup relative to outgroups (Tajfel, 1974) in an effort to maintain positive self-esteem even when membership is determined by trivial factors, such as a coin toss. Salient group affiliations increase willingness to forgive bad behavior and social-norm violations (Bernhard, Fehr, & Fischbacher, 2006). Thus, people judge an unethical action less harshly when an in-group member, as compared to an out-group member, is responsible. Group identification can also result in prejudice, biased behavior (e.g., Brewer, 1999; Tajfel, 1981), and outgroup hostility (Brown, 1996; Turner & Oakes, 1989). Furthermore, the more people identify with their groups, the more they condone and engage in outgroup (vs. ingroup) violence (Cohen et al., 2006). Thus, I hypothesize:

> *Hypothesis 4: Group Identification will moderate the effects of loyalty on ethical behavior such that when group identification is high (vs. low) the loyal will act less (/more) ethically.*

The uniqueness of loyalty

I have proposed that loyalty has both a light and a dark side: sometimes prompting people to act more ethically and at other times leading them astray. But is this troubling aspect unique to loyalty? Or are all ethical principles created equally? An alternative explanation for our theory of loyalty, is that the priming of any ethical principle would produce the same effects. For example, priming people to be fair might lead them to cheat less; but in conditions of competition, priming fairness might lead to MORE cheating. And, if all ethical principles produce the same behaviors then my theory is a theory of ethical principles more generally rather than loyalty per se.

In the current research I focus on two commonly espoused ethical principles and moral values, i.e. honesty and fairness though following arguments should apply more broadly to other ethical principles too. I aim to establish that loyalty leads to cheating behavior in conditions of competition and that other moral principles, such as honesty and fairness, do not have the same dual effects depending on whether the group is in competition or not.

It seems self-evident that ethical principles should promote ethicality. Many ethical principles and moral values such as fairness, justice, caring, honesty and loyalty are considered virtues to aspire to and character qualities that people value in others (e.g., Josephson, 1993; Meara, Schmidt & Day, 1996; Nash, 1990; Schwartz, 1992; Walton, 1988; Whetsone, 1993). And to the extent that the pursuit of virtue demands consistency of behavior then ethical principles should promote ethical behavior. Just as loyalty may act as a moral value or cultural script shining a light on appropriate roles and behaviors (Stryker & Statham, 1985) so too should related moral values and virtues such as fairness (Colquitt & Greenberg, 2001; Folger, 1998; 2001; Murphy, 1999; Rawls, 1971; Solomon, 1999) and honesty (Flowers, 2005; Solomon, 1992; 1999). Thus, loyalty, fairness, honesty and other ethical principles may prompt people to act more ethically. But can ethical principles lead to unethical behavior, as I have argued for loyalty? Or is there something unique about loyalty's dark side?

On the one hand, prior research has shown that "too much of anything is bad …" (Mark Twain). Too much power can be intoxicating and can lead to excessive hubris, confidence and "a narcissistic propensity to see their world primarily as an arena in which to exercise power and

glory" (Owen & Davidson, 2009). Too much confidence can lead to strikes (Babcok & Olson, 1992), lawsuits (Thompson & Loewenstein, 1992), stock market crashes (Daniel, Hirshleifer & Subrahmanyam, 1998) and even wars (Johnson, 2004). Being too conscientious causes people to become pedantic (Mount, Oh, & Burns, 2008; Tett, 1998), prone to self-deception and rigidity (LePine, Colquitt, & Erez, 2000; Martocchio & Judge, 1997), perfectionism (Moscoso and Salgado, 2004) leading to worse job performance (Le, Oh, Robbins, Ilies, Holland & Westrick, 2011). Excessive consciousness also gives rise to obsessive compulsive tendencies which leads to negative affect and decreased well-being (Carter, Guan, Maples, Williamson, Miller, 2015). Being too emotionally stable can lead excessive focus on accuracy at the cost of the exclusion of relevant cues that help performance (Nettle, 2006); it can lead to emotional exhaustion and burn-out (Michielsen, Croon, Willemsen, DeVries, & Van Heck, 2007) and worse job performance (Le, Oh, Robbins, Ilies, Holland & Westrick, 2011). Too much happiness undermines creativity (Davis, 2008), promotes risky behavior (Martin et al., 2002), and reduces income (Oshi, Diener & Lucas, 2007) and life expectancy (Friedman et al., 2003). Too much empathizing with others can cause emotional distress (cf. "the cost of caring" - Smith & Rose, 2011), and increase the risk of depression and anxiety (Tone & Tully, 2014). But does this apply to ethics and ethical principles? Can you be too ethical? And if so, will you act unethically as a result?

Throughout the ages, philosophers, poets and writers have cautioned against being too moral (e.g. Thoreau, 1948; Plato; 380BCE) And many, including Aristotle, Hesiod, Plautus and Wilde, have espoused the virtue of moderation in all things. Being "too honest for your own good" or being "brutally honesty" suggests that too much honesty can be harmful for yourself and others. And, being too fair to everyone can come at the cost of harming the few - ignoring minority interests or individual rights and freedoms. So perhaps other ethical principles can also lead us astray.

On the other hand, "Most ethical principles seem to be unambiguously good. Honesty, fairness, compassion—sure they have their downsides (being "honest to a fault"), but that's more a by-product of something good than it is something evil in and of itself" (Blanding, 2016). In contrast, while loyalty like other ethical principles is touted as a virtue to aspire to, it is, perhaps uniquely among ethical principles, also frequently denounced as a vice (Souryal & McKay, 1996). While headlines of corporate scandals, political machinations, sports cheating, and gangland killings often highlight loyalty's corruptive nature, they rarely, if ever, blame corporate malfeasance and individual unethical behavior on excessive fairness or honesty. Quite the contrary, it is usually those who are the fairest and the most honest who blow the whistle on corruption in society (e.g., Dungan, Waytz & Young, 2015).

Loyalty, unlike fairness and honesty, is a "binding" ethical principle (Graham et al., 2011; Haidt & Kesebir, 2010). That is, loyalty involves an imperative that demands I prioritize our group's interests and binds us to those interests. And that imperative of partiality towards one's group is universally understood (Connor, 2007). Moreover, just as the virtue of loyalty forms part of our cultural shared system of meaning, so too does the loyal imperative. Both virtue and imperative may act as cultural scripts prescribing appropriate roles and behaviors that the loyal should act out. In the current research, I argue that imperative dominates virtue; that is,

loyalty demands singlemindedness (Royce, 1908; Baron, 1984) blinding us to the consequences of our actions and is therefore uniquely positioned among ethical principles to drive unethical behavior.

Evidence from prior research appears to support the idea that loyalty rather than other ethical principles leads to unethicality. Waytz et al. (2013) find that people tradeoff loyalty and fairness considerations and that it is fairness considerations that predict people's willingness to blow the whistle on unethical behavior (an ethical act) and loyalty considerations that predict people's willingness to not blow the whistle (an unethical act). Dungan and colleagues (2015) similarly find that "when fairness increases in value, whistleblowing is more likely whereas when loyalty increases in value, whistleblowing is less likely." Therefore, I hypothesize:

> *Hypothesis 5: Loyalty is UNIQUE among ethical principles in having a dual aspect; i.e., prompting both ethical and unethical behavior.*

Loyalty as an ethical principle in lay psychology

To further demonstrate that loyalty acts as a moral principle in lay psychology, I consider whether the loyal view their actions as moral even when those actions conflict with other ethical concerns.

On the one hand, it is possible that the loyal will view their own unethical actions as immoral. That is, the loyal will act unethically out of a duty to loyalty but will recognize their actions are immoral. This would cast a doubt on the notion that loyalty acts as an ethical principle in people's psychology.

Of course, even when people act unethically, they are motivated to maintain a moral self-image (Blasi, 1993) and often engage in various inter-related moral disengagement tactics (Bandura, 1990; 1996) to help reduce cognitive dissonance associated with maintaining a moral self-image but acting unethically. Such moral disengagement mechanisms include moral justification, euphemistic labelling, advantageous comparison, displacement of responsibility, diffusion of responsibility, disregard or distortion of consequences and dehumanization (Bandura, 2002). And presumably, the loyal would be no less motivated to judge their rationalize away their actions.

On the other hand, if loyalty acts as an ethical principle in lay psychology as others claim (Graham, Haidt, & Nosek, 2009; Haidt & Graham, 2007; Haidt & Joseph, 2004, 2007; Sheweder, Much, Mahaputra, and Park, 1997; Fiske, 1991; 1992; 2004; Fiske & Haslam, 2005; Rai & Fiske, 2011), then it should guide and govern behavior (Anderson, 1997; Brown, unpublished, and see Coughlan, 2005: 5; Etzioni, 1988; Meglino & Ravlin, 1998; Schwartz, 1992) and be sufficient basis, in and of itself, from which to judge the ethicality of behavior. That is, loyal action should be perceived to be moral by the loyal, in the absence of any conflict with other ethical concerns.

When loyalty conflicts with other ethical concerns then judgments about the morality of loyal behavior will depend on the extent to which considerations of loyalty trump other ethical concerns: (1) If the loyal imperative trumps other ethical concerns then loyal action should be

judged to be moral; (2) if other ethical concerns trump loyalty then loyal action should be deemed immoral; (3) and if neither principle dominates the other then loyal action should neither be deemed moral nor immoral.

I believe that the loyal (compared to adherents of other ethical principles) will be particularly likely to judge their actions as moral because loyalty demands "singlemindedness" (Royce, 1908; Baron, 1984). As already discussed, loyalty is a "binding" ethical principle (Graham et al., 2011; Haidt & Kesebir, 2010) and the loyal imperative demands the loyal focus on and adhere to the group's interests. But, loyalty not only binds the loyal to the group's interests but it blinds them to the consequences of their loyal actions (Baron, 1984; Fletcher, 1991).

Therefore, I hypothesize:

Hypothesis 6. Loyal action is SEEN AS MORAL by the loyal even when such action is not moral with respect to other ethical concerns.

If loyalty acts as an ethical principle in lay psychology, then independent observers of loyal action should understand and judge loyal action as moral when they understand that the basis of action was loyalty even when it conflicts with other ethical concerns. However, to the extent that outside observers are unaware that the basis of unethical behavior was not loyalty then they should judge such behavior as immoral. Therefore, I hypothesize:

Hypothesis 7. Unethical behavior is judged MORAL (/IMMORAL) by independent observers when the basis of such action is recognized (/not recognized) to be loyalty.

Overview of the Present Research

I tested these hypotheses in eleven studies. In Studies 1A, 1B, 3A, 3B, 5A, 5B, 6A and 6B I experimentally manipulated participants' loyalty to their groups; in Studies 2A, 2B, and 4, participants self-reported their loyalty to existing groups. After loyalty was manipulated or measured, participants were provided with an incentive to cheat for their group on a problem-solving task (all studies), blow the whistle on unethical behavior (studies 2A and 3A) or lie for the benefit of their groups (study 6B).

Loyalty manipulation. Previous research on loyalty has relied on self-reported measures of loyalty (e.g., Boroff and Lewin, 1997; Jauch, Glueck, & Osborn, 1978), manipulations of group identity or other related constructs rather than loyalty (e.g., Adler & Adler, 1988; Zdaniuk & Levine, 2001), or semantic primes using scrambled-sentence tasks (e.g., Zogmeister, Arcuri, Castelli, and Smith, 2008) in which either the whole sentence or a single word references loyalty (treatment condition) or not (control condition). Because semantic priming has had mixed results (e.g., Bargh, Chen, & Burrows, 1996; Doyen, Klein, Pichon, & Cleeremans, 2012), in this research I designed a new loyalty manipulation based on a group discussion and loyalty pledge used in Studies 1A, 1B, 3A, 3B, 5A, 5B, 6A and 6B.

Alternative explanations. In organizational research, loyalty often has been conflated with other constructs, such as liking (Connor, 2007; Fullagar & Barling, 1989; Mele, 2001), group identification (e.g., Chen Tsui & Fahr, 2002; Coughlan, 2005; Hirschman, 1970; Morrow & McElroy, 1993; Powers, 2000; Werther, 1988; Zdaniuk & Levine, 2001), commitment (Barry, 1974; Coughlan, 2005; Forrest, 1995; Mele, 2001; Oliver, 1999), and, more recently, identity fusion (Swann, Gomez, Seyle, Morales, & Huinci, 2009). While I acknowledge that liking, group identification, commitment, and identity fusion are natural (though not necessary) concomitants of loyalty to a group, I have argued that loyalty has a moral component that helps differentiate it from these related constructs. Analogous to the collectivist and principlist forms of prosocial motivation (Batson, Ahmad, and Stocks, 2011), in the context of groups, loyalty imbues collectivism with morality. That is, the loyal prioritize their group not just because they belong to or identify with their group, but because they believe that doing so is the right thing to do. In particular, in the current context of unethical behavior, I expect that the effect of loyalty on cheating should be independent of the effects of these other constructs. Therefore, I collected measures of liking (all studies), group identification (Studies 1B, 2A, 2B, and 4), commitment (Studies 2A and 2B), and identity fusion (Study 3A), though they are not the primary focus of the current research, to demonstrate that the effects of loyalty are not reducible to the effects of these other collectivist motivations.

Finally, to help address the possibility that those reporting to be more loyal were also more ethical in general or that our loyalty manipulation primed self-focused concerns about morality in general rather than loyalty per se, I collected measures of general ethical behavior (Studies 2A and 2B) and moral self-identity (Study 3A).

In summary, Studies 1A and 1B demonstrated and replicated our main effect of loyalty on honesty, Studies 2A and 2B helped generalize this finding to actual relationships, Studies 3A and 3B identified potential explanations for these effects, Studies 4, 5A, 5B, 6A and 6B demonstrated that competition moderated the relationship between loyalty and ethical behavior, Studies 6A and 6B demonstrated that loyalty is unique in having this dual aspect, and Study 6B demonstrated that the loyal believe their actions are ethical even when those actions conflicted with other ethical concerns. Across the eleven studies, I found no evidence that competing explanations—including effort, liking, group identification, commitment, identity fusion, general ethical behavior, and moral self-identity—explained the effects.

I note that, in all my studies, I report all variables collected. No participants who completed our studies have been excluded from any of the analyses. Sample sizes were dictated by the availability of subjects (all studies except those online), grant money (lab studies) and class credits (Studies 2B, 3B and 6B) available to me, timely access to fraternity houses (Studies 2A and 4) and with reference to prior research and the expected effect sizes (all studies).

CHAPTER 3

Loyalty and cheating in the lab

Studies 1A and 1B examined the effects of loyalty on cheating behavior in a laboratory setting and found support for Hypothesis 1 but not for Hypothesis 3.

Study 1A: Loyalty and Cheating in the Laboratory

The primary aim of Study 1A was to test Hypothesis 1: that when group concerns are unclear, the salience of loyalty will increase ethical behavior as compared to when loyalty is not salient.

Method

Participants. Fifty-seven participants (15 male; *Mage* = 21.51, *SD* = 3.26) from a large West Coast university participated in the study for cash payment. All participants received a $5 show-up fee and had the opportunity to earn up to $15 more depending on their group's performance on the problem-solving task. Between three and nine participants were recruited in each experimental session and randomly assigned to one of two conditions: loyalty (N = 30) or control (N = 27). Experimental sessions were run back to back, and same-sex participants were recruited for each session. In each session, participants were assigned to groups of three same-condition participants.

The study included two tasks: a group discussion designed to prime loyalty in the treatment condition and an individual problem-solving task used to assess cheating. Subjects were then probed for suspicion, debriefed, and paid. During the individual problem-solving task and subsequent suspicion checks, participants sat in private cubicles and did not interact with each other.

Loyalty manipulation. Subjects in the loyalty condition were given 10 minutes to discuss "loyalty" before signing a pledge of loyalty to their discussion group (See Appendix 1). Subjects in the control condition discussed the pretested neutral topic of "globalization" for 10 minutes and did not sign a pledge. (Stimuli included in Appendix 1.)

Cheating task. Participants were then assigned to private cubicles to complete a problem-solving task (Gino, Schweitzer, Mead, and Ariely, 2011; Mazar, Amir, and Ariely, 2008), which gave them an opportunity to falsely report their performance and potentially earn more money for their group. Participants were presented with 20 matrices on one sheet of paper. Each matrix contained three rows and four columns of three-digit numbers (e.g., 6.14). Participants were told that their task was to identify pairs of numbers in each matrix that summed to 10 and to circle these numbers. They were given five minutes to identify as many pairs of numbers as they could and were told that for each pair they identified they would earn $0.25 for themselves and $0.25 for each of their group members. Participants could therefore earn between $0 and $15 on the five-minute problem-solving task depending on their group's performance.

At the end of the task, participants were asked to self-report the number of correct pairs of numbers they had identified on a collection slip and the amount they had earned for themselves and each of their group members. They were instructed to recycle the matrix sheet with their answers in a recycling bin and to hand the collection slip to the experimenter so that s/he could determine how much to pay the other participants. The collection slips and matrix sheets were designed to appear anonymous to participants, although numbers on both sheets allowed the experimenter to pair the collection slips and matrix sheets after the experiment was over. This enabled the experimenter to determine whether or not participants had overstated their performance. During both the group discussion task and the individual problem-solving task, the experimenter stepped out of the room, returning only to give participants a two-minute warning before time was up.

Manipulation and suspicion checks. At the end of the laboratory session, participants completed a three-item measure of loyalty indicating the extent to which they agreed with each statement (1 = completely disagree, 7 = completely agree): "I feel loyal to this group," "I pledged my loyalty to the group," and "I had loyal obligations to other members of the group" (α = .75). At the end of every study, participants were probed for suspicion using two-item open-ended suspicion probes (Chen, Lee-Chai and Bargh, 2001): "Did you find anything strange or unusual about the experimental procedures?" and "What do you think is the purpose of this experiment?" Participants were then debriefed, thanked, and paid based on their group's reported performance as described above.

Measure of cheating. I assessed two measures for cheating: a dichotomous variable "Cheated," coded 1 if a participant's actual score was less than their reported score and coded 0 otherwise, and a continuous variable, computed as the difference between the score participants self-reported and their actual score. In all studies, I report results for the effects of loyalty on Cheated, but note that the effects of loyalty on the amounts cheated are consistently stronger.2 The results reported below are therefore conservative.

Results

Manipulation and suspicion checks. Participants' responses to the suspicion checks in the post-experiment questionnaires revealed that none guessed the hypothesis being tested in any of the studies; therefore, I report results for all participants in all nine studies. The manipulation check was also successful: participants in the loyalty condition reported being significantly more loyal (M = 5.44 SD = 1.33) than those in the control condition (M = 3.44, SD = 1.50) t (55) = 5.34, $p < .001$, d = 1.41.

Cheating. Fewer participants cheated in the loyalty condition (20%, 6 out of 30) as compared to the control condition (44%, 12 out of 27), χ^2 (1, N = 57) = 3.93, p = .047. This result is consistent with the ethical salience hypothesis, which suggests that loyalty makes ethical considerations more salient, which promotes honesty. A summary of the percentage of participants who cheated or were honest broken down by condition is shown in Figure 1, together with the results of studies 1B, 2A, 2B, 3A and 3B.

Effort. One possible explanation for this finding is that the loyalty manipulation caused participants in the loyal condition (as compared to those in the control condition) to exert more effort on the problem-solving task and consequently to perform better, earn more, and therefore not need to supplement their earnings by cheating. To mitigate this possibility, I compared the mean scores for actual performance on the problem-solving task of participants in the loyal condition and those of participants in the control condition. A t-test confirmed there was no significant effect of loyalty on individuals' actual performance (M_{loyal} = 7.50, SD = 5.26; $M_{control}$ = 8.15, *SD* = 4.32), *t* (55) = .505, *p* = .62, *d* = -.14. Therefore, participants in the loyal condition did not appear to exert more effort on the problem-solving task than those in the control condition.

Discussion

The results of Study 1A show that participants primed with loyalty were less likely to cheat than other participants, consistent with our ethical salience hypothesis. Moreover, cheating was not a result of participants in the loyalty condition exerting more effort than those in the control condition.

Study 1B: Replication in the Laboratory

The primary goal of Study 1B was to replicate the results of Study 1A and provide additional support for the predictions of our first hypothesis that group loyalty increases ethicality. In addition, I sought to address two obvious alternative explanations for our results: liking and group identification.

I also adopted a more conservative methodology by having participants pay themselves. Previous research suggests that when payment is deferred, people become more susceptible to cheating (Mazar, Amir, & Ariely, 2008). By asking participants to pay themselves immediately after completing the cheating task, I advanced the timing of payment, thus increasing participants' susceptibility to cheat.

Method

Participants. Sixty-three participants (22 male; M_{age} = 20.57, *SD* = 2.08) from a large West Coast university participated in the study for pay (a minimum $5 show-up fee and the opportunity to earn additional money in the individual task outlined below). Participants were randomly assigned to one of two conditions: loyalty and control. Experimental sessions were run back to back, but only same-sex participants were recruited for each session. In each session, participants were assigned to groups of three participants, one group per condition.

Participants completed the same group discussion and individual problem-solving tasks used in Study 1A. However, in Study 1B, at the start of the individual problem-solving task, participants were handed an envelope containing $5 and instructed to pay themselves based on their performance at the end of the task and return any remaining money to the experimenter.

Post-task questionnaire. Participants then completed a post-experiment survey designed to elicit measures of liking and group identification. Participants first completed a four-item measure of liking (Lakin & Chatrand, 2003) for themselves and for each of the other participants in their group using a round-robin design by responding to the following statements (1 = not at all, 9 = very): "How friendly was this person?" "Would you like to spend more time with the person?" "How comfortable were you with the person?" and "How smoothly did your interaction go with the person?" (α = .90). Participants then completed Henry, Arrow, and Carini's (1999) 12-item measure of group identification (α = .87) by rating the extent to which they agreed with 12 statements using a seven-point Likert scale (1 = disagree strongly, 7 = agree strongly). Example items included "I would prefer to be in a different group" (Reverse-scored) and "I think of this group as part of who I am."

Results

A summary of the descriptive statistics of the main variables measured in the study is included in Table 1.

[Insert Table 1 about here]

Cheating. Consistent with the findings of Study 1A, a smaller percentage of participants cheated by overstating their performance on the problem-solving task in the loyalty condition (15%, 5 out of 33) as compared to the control condition (43%, 13 out of 30), χ^2 (1, N = 63) = 6.12, p = .013 (see Figure 1).

Liking and group identification. The average level of group liking scores for participants in the loyalty condition (M = 7.25, SD = 1.20) was not significantly different from that of participants in the control condition (M = 6.84, SD = 1.28) t (61) = 1.29, p = .20, d = .32. Similarly, participants in the loyalty condition did not identify with their groups any more than participants in the control condition did (M_{loyal} = 4.78, SD = .77; $M_{control}$ = 4.49, SD = .83) t (60) = 1.46, p = .149, d = .37. Neither liking nor group identification was significantly related to cheating or affected the relationship between loyalty and cheating.

Discussion

Consistent with the findings of Study 1A and in support of Hypothesis 1, the results of Study 1B revealed that participants primed with loyalty were less likely to cheat than those in the control condition. Additional analyses found no evidence that differences in liking or group identification explained or moderated the effects of loyalty on cheating (thus not supporting Hypothesis 4).

CHAPTER 4

Generalizing the effects of loyalty and cheating

Studies 2A and 2B tested the generalizability of the effects of loyalty on cheating behavior in a two field settings and found additional support for Hypothesis 1 but not for Hypothesis 3.

Overview of Studies 2A and 2B

The results of Studies 1A and 1B provide evidence that the more loyal people are to their group, the less likely they are to engage in unethical behavior on behalf of the group. Given that group loyalty often develops naturally in groups, studying it in a field setting would increase the validity of our findings. Therefore, the primary aim of Studies 2A and 2B was to increase both the internal and external validity of our findings by using an alternative measure of loyalty (i.e., self-reported loyalty to a group) based on existing loyalties to groups that people already held, namely fraternities (Study 2A) and study groups (Study 2B).

I also sought to generalize the effects of loyalty on unethical behavior by considering an alternative measure of unethical behavior: whistleblowing intention. Recent research by Waytz, Dungan, and Young (2013) found that people driven by loyalty (vs. fairness) concerns are less likely to report unethical behavior. While Waytz et al.'s research considers the effects of the fairness-loyalty tradeoff rather than loyalty per se, it highlights that our findings on the effects of loyalty may be limited to the specific context of cheating. To mitigate this possibility, I included a scenario about an ethical dilemma and an alternative measure of unethical behavior: i.e., whistleblowing. In both Studies 2A and 2B, I therefore collected two measures of unethical behavior: actual cheating and whistleblowing intention.

Study 2A: Loyalty and Cheating in Fraternities

Method

Participants. Eighty-nine male subjects (M_{age} = 19.69, SD = 1.28) recruited from three fraternities at a large West Coast university were paid $5 for participating in the study and given the opportunity to earn additional money for their fraternity depending on their performance on the problem-solving task described below.

The study comprised three tasks: a pre-experiment questionnaire designed to elicit self-reported measures of general ethical behavior, as well as liking, identification, and commitment to the group; the problem-solving task (used to assess cheating); and a whistle-blowing scenario and questionnaire.

Pre-experiment questionnaire. Several days prior to the main experiment, participants were emailed a link to an online survey designed to solicit their participation and elicit measures of liking, group identification, organizational commitment, and general ethical behavior.[3]

Liking. Participants were asked to rate how much they liked themselves and four other members of their fraternity house by rating the extent to which they agreed with the statement (1 = strongly disagree, 7 = strongly agree) "I like this person" for each person. The names of the four other members of their house were randomly selected (for each participant) from a list of all the names of the members of their respective fraternity.

General ethical behavior. Participants also rated the extent to which they agreed with the statement "This person sometimes behaves unethically" for themselves and for the same four people using the same scale. The item was reverse-scored to create a measure of general ethical behavior.

Group identification. A three-item version of the group-identification scale (Henry et al., 1999) used in Study 1B was adapted so that the target of identification was the fraternity member's house. Participants rated the extent to which they agreed with the following statements (1 = completely disagree, 7 = completely agree): "I would prefer to be in a different house" (reverse scored), "In this house, members don't have to rely on one another" (reverse scored), and "I think of this house as part of who I am," respectively.

Commitment to the group. I adapted a four-item version of Allen and Meyer's (1990) Organizational Commitment Scale as amended by Jaros (2007) to focus on commitment to the house rather than an organization. Participants rated the extent to which they agreed with the following statements (1 = completely disagree, 7 = completely agree): "I do not feel emotionally attached to this house," "Too much of my life would be disrupted if I decided to leave my house now," "I feel that I oI this house quite a bit because of what it has done for me," and "I feel it is morally correct to dedicate myself to this house."

Experiment

The main experiment was conducted at each of the three fraternity houses immediately prior to their respective weekly chapter meetings. The experimenters were male undergraduate students, approved by the university's Institutional Review Board to conduct research, whose demographic characteristics were similar to those of the participants, except that they did not belong to the relevant fraternity.

Cheating task. Participants completed the same problem-solving task used in Studies 1A and 1B and were told that for every correct matrix puzzle they solved, their fraternity would earn $1 for a possible total of $20 each for their fraternity. They were also told that two other fraternities, whose identities were not disclosed, were completing the same task and that the fraternities with the highest and second-highest average performance on the task would receive bonuses of $200 and $100, respectively.4

Whistleblowing scenario. Participants read a scenario about hazing at a fraternity taken from Richardson, Wang, and Hall (2012) and indicated their whistleblowing intent by rating the extent to which they agreed with the following statement (1 = extremely unlikely, 7 = extremely likely): "I intend to report the hazing incident to someone who could affect action."

Loyalty measure. Participants then completed a six-item measure of loyalty adapted from Coughlan (2005). The three items related to Attitudinal Loyalty were: "My behavior at school reflects the moral principles supported by my fraternity," "In resolving ethical dilemmas in school, I use the standards of my fraternity as guidelines," and "I feel a sense of loyalty to my fraternity" (α =.80, or α = .74 without the third item). The three items related to Applied Loyalty were: "I expect other members of my fraternity to deal directly with suspected unethical behavior in our group," "My moral values and the moral values of my fraternity are very similar," and "One of the most important factors in work is the potential effect of my actions on other members of my fraternity" (α =.79) (1 = strongly disagree, 7 = strongly agree). A factor analysis (using varimax rotation) indicated that the six items loaded onto one factor (α =.87), so I created a measure of overall loyalty by averaging responses to the six items. I also present the effects of attitudinal and applied loyalty separately for completeness. The measure of loyalty was collected at a different point in time than measures of liking, group identification, and commitment to eliminate the possibility that ratings of loyalty might influence ratings of these other constructs or vice versa.

Results

A summary of the descriptive statistics for the measures used in Study 2A is included in Table 2.

[Insert Table 2 about here]

Cheating. I conducted a logistic regression analysis of the impact of overall loyalty on cheating. The analysis revealed a marginally significant relationship between overall loyalty and less cheating, such that the more loyal brothers were to their fraternity, the less likely they were to cheat (B = -.39, SE =.21, Wald = 3.36, p = .067). The sub-measure of applied loyalty was also significantly related to less cheating (B = -.43, SE =.20, Wald = 4.54, p = .033), whereas attitudinal loyalty was not (B = -.25, SE =.19, Wald = 1.73, p = .189). The single item "I feel a sense of loyalty to my fraternity" was also significantly related to a lower probability of cheating (B = -.33, SE =.17, Wald = 3.85, p = .050).

Whistleblowing. A linear regression analysis of whistleblowing intention on loyalty revealed that the more loyal brothers were to their fraternity, the more likely they were to claim that they would blow the whistle on unethical behavior, F (1, 86) = 4.49, p = .037, *Adjusted* R^2 = .039 (applied loyalty F (1, 86) = 3.95, p = .050, *Adjusted* R^2 = .033; attitudinal loyalty F (1, 86) = 3.62, p = .060, *Adjusted* R^2 = .029).

Liking, group identification, commitment and general ethical behavior. Additional analyses confirmed that liking, group identification, commitment and self-reported general ethical behavior did not explain the effects of loyalty on cheating or whistleblowing intent.

Summary. Using self-reported measures of loyalty to fraternities, the results of Study 2A revealed that loyalty was significantly related to less cheating and greater intention to blow the whistle on unethical behavior. Moreover, liking, group identification, commitment, and self-reported general ethical behavior did not explain the effects of loyalty on unethical behavior.

Study 2B: Loyalty and Cheating in Study Groups

The primary aim of Study 2B was to replicate the findings of Study 2A using participants who work together but who have not pledged loyalty to one another, in contrast to the fraternal organizations in Study 2A and as manipulated in Studies 1A and 1B (loyalty conditions).

Method

Participants. Ninety subjects (45 Male, Mage = 21.1, SD = 1.37) were recruited from an undergraduate marketing class at the business school of a large West Coast university and received class credit for participating in the study. Participants had previously formed project teams to complete a group assignment for the class and were recruited in their project groups near the end of the semester after they had worked together for about two months. Twenty-one project groups ranging from three to six members took part in the experiment and were given the opportunity to receive bonus class credits depending on their group's performance on the main task described below. Participants completed the following five tasks in their project groups: (1) a group discussion task; (2) a questionnaire eliciting measures of liking, group identification, and organizational commitment; (3) the problem-solving task used in previous studies; (4) the whistleblowing task used in Study 2; and (5) a measure of loyalty to their group.

Group discussion task. Participants read a scenario about a hypothetical group dilemma (see Appendix 2) and were given 10 minutes to discuss the task in their project groups and submit a collective response. This task was used to ensure participants were engaged in the experiment and conscious of their group membership.

Questionnaire. Participants were then assigned to individual cubicles to complete a questionnaire designed to elicit measures of general ethical behavior, liking, group identification, and commitment. Each participant was assigned an ID (U, V, W, X, Y, or Z) and asked to indicate the extent to which he or she liked each of the other members of their group, according to ID, by rating the statement "I like this person" (1 = strongly disagree, 7 = strongly agree). Participants also completed the measure of general ethical behavior used in Study 2, the full 12-item version of the group-identification scale used in Study 1B (α =.79), and the abbreviated four-item version of the commitment scale used in Study 2 (α =.69), which were adapted to focus on the study group rather than the fraternity house.

Cheating task. Participants completed the same problem-solving task used in previous studies and were given the opportunity to falsely report their performance. Participants were told that two other project groups were completing the task at the same time and that the group with the highest average score on the problem-solving task would receive double the class credits for the experiment.5 Otherwise the task was identical to Study 1B, except that participants did not pay themselves.

Whistleblowing scenario. Participants then completed the same whistleblowing scenario and measure of whistleblowing intent used in Study 2A. Finally, participants completed the two three-item measures of applied loyalty (α =.69) and attitudinal loyalty (α =.67) used in Study 2A, which were combined into a measure of overall loyalty, as a factor analysis (with varimax

rotation) again revealed the six items loaded onto one factor (α =.80), consistent with Study 2A. As an exploratory variable, I also collected a 6-item measure of status certainty.6

Results

Descriptive Statistics for Study 2B are shown in Table 3.

[Insert Table 3 about here]

Cheating. Study group members who reported being more loyal to their groups were less likely to cheat on the problem-solving task than those who were less loyal (*B* = -.60, *SE* =.28, Wald = 4.66, *p* = .031). Similarly, the sub-measure of applied loyalty was significantly related to less cheating (*B* = -.61, *SE* =.27, Wald = 5.20, p = .023), and the sub-measure attitudinal loyalty was not (*B* = -.42, *SE* =.25, Wald = 2.81, *p* = .095). The single item "I feel a sense of loyalty to my study group" was also significantly related to a lower likelihood of cheating (*B* = -.41, *SE* =.20, Wald = 4.46, *p* = .035).

Whistleblowing. Members of study groups who reported being more loyal to their groups were more likely to blow the whistle, *F* (1, 88) = 7.027, *p* = .010, *Adjusted* R^2 = .063 (applied loyalty *F* (1, 88) = 5.289, *p* = .024, *Adjusted* R^2 = .046; attitudinal loyalty F (1, 88) = 6.213, *p* = .015, *Adjusted* R^2 = .055).

Liking, group identification, commitment, and general ethical behavior. Additional analyses confirmed that liking, group identification, commitment and self-reported general ethical behavior did not explain the effects of loyalty on cheating or whistleblowing intent.

Summary. Consistent with Study 2A, the results of Study 2B revealed that loyalty was significantly related to less cheating and greater intention to blow the whistle on unethical behavior. Also consistent with Study 2A, liking, group identification, commitment, and self-reported general ethical behavior did not explain the effects of loyalty on unethical behavior.

Discussion

Studies 2A and 2B help to generalize the effects of loyalty on unethical behavior beyond the laboratory to contexts involving actual loyalties to groups where such loyalty is expected (Study 2A fraternities) or not (Study 2B study groups), thus lending additional support for Hypothesis 1. Moreover, Studies 2A and 2B demonstrate that the effects of loyalty on unethical behavior are not limited to cheating but apply to proactive ethical behavior (whistleblowing) as well. In contrast to the finding of Waytz et al. (2013) that the hypothetical tradeoff between loyalty and fairness leads to greater unethical behavior, this study revealed that when such ethical tradeoffs are not salient, then loyalty to an actual group promotes ethical behavior.

In both studies I were able to address a number of alternative explanations and potential mediators for these effects, including the possibility that the most loyal participants exerted the most effort on the cheating task, liked each other the most, felt the most committed to their groups, identified the most with their groups (again not supporting Hypothesis 4), and believed they acted the most ethically in general. Next, I examine why loyalty reduces unethical behavior.

CHAPTER 5

Exploring the mediating mechanisms

Studies 3A and 3B examined the mediating role of ethical salience in the relationship between loyalty and cheating in a laboratory setting and found support for Hypothesis 2.

Overview of Studies 3A and 3B

The primary aim of Studies 3A and 3B is to identify a potential mediator for the relationship between loyalty and unethical behavior. Studies 1A, 1B, 2A, and 2B provide evidence in support of our first hypothesis, namely that loyalty reduces the likelihood that a person will act unethically (i.e., cheat or fail to blow the whistle) despite such unethical actions benefiting the group. In developing this hypothesis, I alluded to one potential mechanism, i.e., ethical saliency, which I test in Study 3A. That is, the moral aspect of loyalty might make the ethics of a situation more salient, which in turn might reduce an individual's propensity to cheat. In Study 3B, I examine whether the effect of loyalty on ethical behavior is driven by pledging loyalty rather than loyalty per se. While the results of Studies 2A (fraternities) and 2B (study groups) suggest that the pledge is not necessary, both studies are correlational in nature and neither speak to the role of ethical salience. In Study 3B, I therefore adapted the more rigorous laboratory methodology of Study 3A by using a different pledge and adding a third condition in which participants discussed loyalty but did not pledge their loyalty to their group. I also revisited the role of ethical salience in explaining the relationship between loyalty and ethical behavior.

Study 3A: Mediation in the Laboratory

Method

Participants. Sixty subjects (30 male; M_{age} = 19.28, SD = 1.46) from a large West Coast university participated in the study for pay (a minimum $5 show-up fee and the opportunity to earn additional money in the individual task outlined below). Participants were randomly assigned to one of two conditions: loyalty (N = 30) and control (N = 30). Experimental sessions were run back to back, but only same-sex participants were recruited for each session. In each session, participants were assigned to groups of three participants, one group per condition.

The study employed the same procedure as Study 1A with two differences: First, following completion of the group discussion but before the individual problem-solving task, participants completed a measure of ethical salience. Second, after the individual problem-solving task, participants completed a brief questionnaire designed to elicit measures of identity-fusion liking and moral self-identity.

Ethical salience. Participants completed a measure of ethical salience (adapted from Shu, Mazar, Gino, Ariely, & Bazerman, 2012). Participants were given a word-completion task in

which they were asked to complete 11 word fragments with the first words that came to mind. Four of the word fragments (_ _ R A L, _ I _ _ _ E, E _ _ _ C _ _, and T _ _ _ H) could potentially be completed with words relating to ethics (moral, virtue, ethical, and truth) or with neutral words (viral, minute, effects, and tooth), and one word (H _ _ _ E _ T) could only be completed with an ethical word (i.e., honest). The remaining six word fragments could be completed with neutral words. Participants were given two minutes to complete this task. A dichotomous variable of Ethical Salience was coded 1 if the participant identified at least one of the five ethical words and 0 if they did not. (The conclusions of the mediation results reported below do not change if a continuous measure of ethical salience is used instead.)

Post-task questionnaire. Participants then completed the three-item loyalty manipulation used in Study 1A, (α = .75), as well as a three-item measure of liking – "I liked the members of the group," "I disliked at least one member of the group" (reverse-scored), "If I could, I would work with the group on a future task" – using the same scale (α = .77).

Participants then completed a pictorial measure of identity fusion (Swann et al., 2009), which depicted the self and the group as separate entities (i.e., two circles) that overlapped to different degrees from not at all (Picture 1 of 5) to completely (Picture 5 of 5). Participants indicated which picture best depicted their relationship with their group during the experiment, and these responses were converted into a measure of identity fusion (1 = no identity fusion, 5 = complete identity fusion).

Finally, participants completed a measure of moral self-identity adapted from Aquino and Reed (2002). They were presented with nine traits (caring, compassionate, helpful, hard-working, friendly, fair, generous, honest, and kind) and asked to indicate "how closely you behaved during this experiment compared to your ideal on each trait" (1 = much less than the person I want to be, 9 = much more than the person I want to be). Responses were averaged into a combined measure of moral self-identity (α = .93).

Results

Table 4 reports the descriptive statistics for the main variables measured in this study.

[Insert Table 4 about here]

Manipulation check. Participants in the loyalty condition reported being more loyal (M = 4.96, SD = 1.09) than those in the control condition (M = 3.53, SD = 1.63) t (58) = 3.97, $p < .001$, d = 1.03.

Cheating. As shown in Figure 1, consistent with the results of previous studies, fewer participants in the loyalty condition cheated by overstating their performance on the problem-solving task (10%, 3 out of 30) as compared to those in the control condition (43%, 13 out of 30), χ^2 (1, N = 60) = 8.52, p = .004.

Ethical salience. Significantly more participants in the loyalty condition (67%, 20 out of 30 subjects) identified at least one ethical word as compared to participants in the control condition (20%, 6 out of 30) χ^2 (1, N = 60) = 13.30, $p < .001$. Moreover, our measure of ethical

salience was significantly related to participants' propensity to cheat. None of the participants who identified an ethical word (0 out of 26) cheated, whereas 53% (18 of 34 subjects) who failed to identify an ethical word cheated, χ^2 (1, N = 60) = 16.68, p < .001. To test whether our measure of ethical salience mediated the effect of loyalty on cheating, I used a Monte Carlo method for assessing mediation (MacKinnon, Lockwood, & Williams, 2004; Selig & Preacher, 2008) and ran 20,000 simulations for the indirect effect of loyalty on cheating through ethical salience. The 95% confidence interval [-8.88, -.32] excluded zero, confirming that ethical salience mediated the relationship between loyalty and cheating; that is, participants in the loyalty condition cheated less because ethical salience was higher for them.

Alternative explanations. The average level of liking and identity fusion and moral self-identity scores for participants in the loyalty condition did not differ significantly from the respective average scores of participants in the control condition. Moreover, liking, identity fusion, and moral self-identity were not significantly related to cheating and did not significantly affect the relationship between loyalty and cheating when added as a covariate in the logistic regression of loyalty predicting cheating.

Discussion

The results of Study 3A again revealed that participants primed with loyalty were less likely to cheat and had higher ethical-salience scores than those in the control condition. I also found that greater ethical salience mediated the effects of loyalty on less cheating, thus supporting Hypothesis 2. The study also did not find evidence for the potential additional explanations that loyal participants might feel more fused to their groups or that the loyalty manipulation might cause the loyal to hold more self-focused conscious concerns about being moral.

Study 3B: Pledging Loyalty vs. Loyalty per se

It is possible that the salience of ethics (the mediator identified in Study 3A) is merely an artifact of reading and signing the pledge and that other mechanisms underpin the relationship between loyalty per se and ethical behavior. Thus, in Study 3B, I identified and measured three additional potential mechanisms, including (1) the salience of values related to loyalty ("values salience"), (2) the salience of cheating ("cheating salience"), and (3) expectations arising from loyalty ("loyal expectations").

Loyalty has long been considered a value that people hold dear (Allport, 1933; Jones, 2010; Oldenquist, 1982). Discussions of loyalty in groups may prompt people to think of specific values related to loyalty rather than ethics more generally, and these related values may more directly affect ethical conduct. For example, Schwartz (1992) identified a cluster of values that he termed "benevolence," including loyalty as well as honesty, forgiveness, helpfulness, responsibility, mature love, and true friendship. Closely related to benevolence were the value clusters of "respect for tradition" and "universalism." To test whether loyalty makes specific related values salient, I developed the measure values salience, analogous to that used for ethical

salience. Specifically, I used a word-fragment task that included the five target words associated with loyalty-related values, including honesty, helpfulness, respect, and fairness, as well as purity, a further value cluster that Haidt and colleagues (Graham et al., 2009; Haidt & Graham, 2007; Haidt & Joseph, 2004, 2007) had identified.

While loyalty is often considered a virtue (Coleman, 2009; Souryal & McKay, 1996), many have highlighted its darker side (Axinn, 1994; Carbone, 1997; Ewin, 1992). Discussions of loyalty may also make salient the negative consequences of loyalty, such as cheating and lying about one's performance if it benefits the group. Loyalty may therefore act as a precautionary measure by making salient the potential negative consequences of one's actions and serving as a deterrent of such actions. I therefore created the measure cheating salience using a word-fragment task with the target words cheating, lied, and the related words false, fraud, and wrong.

Finally, loyalty, as defined, gives rise to expectations that may affect behavior. In a pilot study, 92 subjects identified expectations arising from loyalty; the five most cited expectations were caring, commitment, consistency, support and trust. I created the measure loyal expectations using a word-fragment task with these five target words.

Method

Participants. One hundred eight subjects (57 male; M_{age} = 20.40, SD = 1.685) from a large West Coast university participated in the study for pay (either class credit or a $5 show up-fee plus and the opportunity to earn additional money in the numbers game used in study 1A). Participants were randomly assigned to one of three conditions: loyalty pledge ("pledge," N = 33), loyalty no pledge ("no pledge," N = 39), and control ("control," N = 36). Experimental sessions were run back to back, but only same-sex participants were recruited for each session. In each session, participants were assigned to groups of three participants, one group per condition.

The study employed the same procedure as Study 3A with three differences: first participants in the pledge condition signed a pledge that simply stated, "I pledge my loyalty to my group for the duration of this study," without reference to other moral values, thus removing a potential confound of the previous pledge. Second, following completion of the group discussion but before the individual problem-solving task, participants completed measures of loyal expectations and values salience. Third, after the individual problem-solving task, participants completed a brief questionnaire that included measures of ethical salience and cheating salience.

Questionnaires. Pilot testing of word-fragment tasks with all four salience measures (20 target words and 10 filler words) revealed that participants suffered fatigue and rarely attempted to answer later fragments. I therefore split the word-fragment task into two 15-word fragments with the first deployed immediately after the group discussion task but before the numbers game, including measures of values salience and loyal expectations, and the second deployed after the numbers game, including measures of ethical salience and cheating salience (see Appendix 3).

After completing the second word-fragment task, participants completed the three-item loyalty manipulation used in Study 1A (α = .76).

Results

Table 5 reports the descriptive statistics for the main variables measured in this study.

[Insert Table 5 about here]

Manipulation check. Participants in the loyalty conditions reported being more loyal ($M_{combined\ loyalty}$ = 4.45, *SD* = 1.47) than those in the control condition ($M_{control}$ = 3.31 (*SD* = 1.60), t (106) = 3.72, $p < .001$.

Cheating. Fewer participants in the pledge (24%, 8 out of 33) and non-pledge (21%, 8 out of 39) conditions cheated as compared to those in the control condition (50%, 18 out of 36), χ^2 (2, N = 108) = 8.70, p = .013. Planned contrasts confirmed that participants in either loyalty condition alone cheated less than those in the control condition. A summary of the results of the first six studies is show in Figure 1.

[Insert Figure 1 about here]

Potential mediators. Significantly more participants in the loyalty conditions as compared to the control condition identified at least one word associated with ethical salience (pledge: 58%, 19 out of 33 subjects; non-pledge: 41%, 16 out of 39 subjects; control: 22%, 8 out of 36 subjects) χ^2 (2, N = 108) = 9.02 p = .011, and at least one word associated with loyal expectations (pledge: 61%, 20 out of 33 subjects; non-pledge: 67%, 26 out of 39 subjects; control: 33%, 12 out of 36 subjects) χ^2 (2, N = 108) = 9.40, p = .009. However, no significant differences emerged between participants reporting at least one word associated with cheating salience (pledge: 79%, 26 out of 33 subjects; non-pledge: 72%, 28 out of 39 subjects; control: 64%, 23 out of 36 subjects), χ^2 (2, N = 108) = 1.87, p = ns, or at least one word associated with values salience (pledge: 42%, 14 out of 33 subjects; non-pledge: 49%, 19 out of 39 subjects; control: 39%, 14 out of 36 subjects), χ^2 (2, N = 108) = .76, p = ns.

Our measures of ethical salience and loyal expectations were also significantly related to subjects' propensity to cheat, χ^2 (1, N = 108) = 8.87, p = .003 and χ^2 (1, N = 108) = 10.39, p = .001 respectfully. However, cheating salience was only marginally significantly related to actual cheating, χ^2 (1, N = 108) = 2.94, p = .087 perhaps because a large number of participants in all conditions identified at least one target word. Values salience was not significantly related to cheating, χ^2 (1, N = 108) = .92, p = ns.

Mediation analyses. I tested whether our measures of ethical salience and loyal expectations mediated the effects of loyalty on ethical behavior. A Monte Carlo model examining the effects of loyalty (combined treatment conditions vs. control condition) on cheating including both potential mediators was run with 20,000 simulations and revealed that the 95% confidence interval for the indirect effect of ethical salience excluded zero [-3.737, -.174] as did the indirect effect of loyal expectations [-3.599, -.269]. Therefore, consistent with

the findings of Study 3A, ethical salience mediated the relationship between loyalty and cheating. Moreover, our measure of expectations also mediated the effect of loyalty on cheating.

I tested the robustness of these findings to alternative model specifications including (1) rerunning the model with just one mediator at a time; (2) running the model separately for our pledge and non-pledge loyalty conditions; and (3) using an alternative measure of ethical salience, i.e. the number of words related to ethics that participants identified (i.e., their "ethical salience number"). The mediation results held up to these alternative model specifications, thus providing additional support for our second hypothesis.

Discussion

The results of Study 3B extend the findings of Study 3A and paint a more nuanced picture of the effects of loyalty on unethical behavior. Loyalty, whether it is pledged explicitly or merely an implicit expectation, raises the salience of ethics and gives rise to expectations of support and commitment. When loyalty is explicit (i.e., pledged), it is the salience of ethics that seems to drive ethical behavior, whereas when it is implicit (i.e., not pledged), the evidence is mixed: ethical salience as well as expectations of support both play a role in reducing unethical behavior, providing additional support for Hypothesis 2.

CHAPTER 6

Exploring the moderation effects of competition

Studies 4, 5A and 5B examined the moderating role of competition in the relationship between loyalty and cheating in a field setting and online and found support for Hypothesis 4.

Overview of Studies 4, 5A and 5B

In Studies 4, 5A and 5B I test my third hypothesis regarding the role of competition as a potential moderator for the relationship between loyalty and unethical behavior. Specifically, I predict that competition moderates the effects of loyalty on ethical behavior such that when competition is high (vs. low), the loyal will act less (more) ethically.

Studies 1A, 1B, 2A, 2B, 3A and 3B provided evidence that loyalty reduces the likelihood that a person will act unethically. However, in all these studies, the demands of loyalty were relatively unclear. In Studies 4, 5A and 5B, I consider a context (i.e., competition) in which the demands of loyalty are clear and conflict with other ethical concerns. In Study 4 I returned to the fraternities and randomly assigned participants to receive a high- or low-competition manipulation before completing the cheating task I used in prior studies. I manipulated competition between participants via a call to arms from the house presidents, whereas loyalty was self-reported in the same manner described in Study 2A. In Study 5A subjects from an online pool were randomly assigned to chat rooms to discuss and pledge loyalty to their group or to discuss the weather. They were also randomly assigned to receive a high- or low-competition manipulation before completing the cheating task I used in prior studies. In Study 5B, I employed the same design and procedure and recruited participants from the same subject pool as used in Study 5A but used a different manipulation of competition in the control condition.

Study 4: Loyalty, Competition, and Cheating in Fraternities

I recruited members of extant groups, i.e., fraternities, and adapted the methodology used in Study 2A to include a manipulation of competition.

Method

Participants. One hundred twenty male subjects (M_{age} = 19.89, SD = 1.28) recruited from four fraternities at a large West Coast university were paid $5 for participating in the study and given the opportunity to earn additional money for their fraternity depending on their performance on the same problem-solving task used in prior studies.

The study design was similar to that used in Study 2A except for the following changes: (1) the pre-experiment survey also included a measure of loyalty to the house; (2) prior to the problem-solving task, participants from each house were randomly assigned to receive one of two messages from their house president, as described in the competition manipulation below; and (3) the final questionnaire did not include the whistle-blowing scenario.

Pre-experiment questionnaire. Participants completed measures of loyalty and general ethical behavior as well as the measures of group identification and commitment to the group used in Study 2A. The measure of general ethical behavior was embedded within the Ten-Item Personality Inventory (Gosling, Rentfrow & Swann, 2003) to reduce the likelihood that participants would make the connection between loyalty and ethical behavior in the main study.

Loyalty to the house. Participants completed a three-item measure of loyalty to the house by rating the extent to which they agreed with the statements "I am loyal to my house," "I'm NOT at all loyal to my fraternity" (reverse-scored), and "I feel strong loyalty to the brothers in the house" (1 disagree strongly, 7 agree strongly). The items were combined into a measure of loyalty (α = .77).

General ethical behavior. Participants rated the extent to which they agreed with the statement "I see myself as ethical, moral" (1 disagree strongly, 7 agree strongly).

Experiment

The main experiment was conducted at each of the four fraternity houses immediately prior to their respective weekly chapter meetings. Each fraternity was aware that at least two other fraternities were taking part, but the identity of the other fraternities was not disclosed. Participants completed the same problem-solving task used in prior studies as well as the post-task questionnaire. The incentive structure was the same as that described in Study 2A.

Competition manipulation. After participants provided consent, they were randomly assigned within each fraternity to receive one of two messages from their house president, which was included with the instructions for the problem-solving task. In the low-competition condition, participants received the message "Please take these tasks seriously. Good Luck!" In the high-competition condition, participants received the message "Please take these tasks seriously. A reminder that the better you perform on these tasks the more our house will earn. We're in competition with two other houses and the winning house will receive a big bonus. It is tough competition, but I know I can win. Good luck!" (Emphasis in the stimuli).

Results

Table 6 reports the descriptive statistics of the main variables measured in the study.

[Insert Table 6 about here]

Loyalty. Our measure of loyalty to the house was negatively skewed and highly leptokurtic because 45% (54/120) of subjects self-rated their loyalty using the maximum ratings possible. I therefore created two measures of loyalty, including the dichotomous measure *StrongLoyalty*, coded 1 if participants rated themselves as strongly loyal to their house (i.e., used the maximum possible ratings) and 0 otherwise, and the transformed measure of *ExpLoyalty* by taking the exponent of the loyalty measure, which removed the skewness and kurtosis.

Cheating. For participants in the low-competition condition, those who self-rated as strongly loyal to their fraternity (23%, 5 out of 22) were less likely to cheat compared to those who self-rated lower loyalty to their house (55%, 18 out of 33), χ^2 (1, N = 55) = 5.49, p = .026. In

contrast, for participants in the high-competition condition, those who self-rated as strongly loyal to their fraternity (66%, 21 out of 32) were marginally more likely to cheat than those who self-rated lower loyalty to their house (42%, 14 out of 33) χ^2 (1, N = 65) = 3.52, p = .083 (see figure 2).

There was no effect of competition on the propensity to cheat for those less loyal to the house, χ^2 (1, N = 66) = .971, p = .460. However, competition significantly increased the propensity to cheat for those strongly loyal to their house, χ^2 (1, N = 54) = 9.61, p = .002.

I also conducted a logistic regression analysis of the impact of ExpLoyalty on cheating. For participants in the low-competition condition, the analysis revealed a significant relationship between ExpLoyalty and less cheating, such that the more loyal brothers were to their fraternity, the less likely they were to cheat (B = -.002, SE =.001, Wald = 5.83, p = .016). In contrast, for participants in the high-competition condition, there was not a significant relationship between ExpLoyalty and cheating (B = .001, SE =.001, Wald = 1.15, p = .283).

Group identification, commitment and self-ratings of ethicality. Additional analyses confirmed that group identification, commitment and self-reported ethicality did not explain the effects of loyalty on cheating.

Discussion

Using self-reported measures of loyalty to fraternities and varying the salience of competition between houses, the results of Study 4 revealed that loyalty was significantly related to less cheating when the salience of competition was low, but when competition was high, those more loyal to their fraternities cheated more. Thus, the results of Study 4 provide evidence in support of Hypothesis 3. Group identification, commitment, and general ethicality did not explain the effects of loyalty on unethical behavior.

Study 5A: Loyalty, Competition, and Cheating Online

To conceptually replicate and generalize the findings of Study 4, I conducted a study using participants from an online subject pool (Amazon Mechanical Turk). I randomly assigned participants to both treatment conditions (i.e., loyalty vs. control and competition vs. control) allowing for causal inference and manipulated competition in a similar manner to that described in Study 4.

Method

Participants. Two hundred eight subjects (105 female, M_{age} = 35.35, SD = 11.17) recruited from Amazon Mechanical Turk were paid $0.50 for participating in the study and given the opportunity to earn additional money for themselves and their groups depending on their performance on the problem-solving task used in prior studies.

The study design was comprised of a prescreening questionnaire, a group discussion task, a cheating task, and a post-task questionnaire, all embedded in a survey. Subjects were randomly

assigned to a 2 (loyalty vs. control discussion task) x 2 (high vs. low competition) between-subjects design.

Pre-screening questionnaire. Participants who signed up for the study first completed a questionnaire designed to test whether they were paying attention or not. Two target questions told participants to select particular responses to demonstrate they were paying attention. Those participants who failed to select the appropriate responses were automatically removed from the study and prevented from taking the study again. Their responses were not collected.

Group discussion task. Participants who passed the attention checks were randomly assigned to one of two conditions: loyalty or control. Participants were told that they would be taking part in a group discussion with two other participants and that the discussion would commence the moment two other participants had signed in. They were told that they if the two other participants did not sign in within three minutes, then the study would end and they would be paid the participation fee.

A chat room was embedded in the survey and designed to "go live" the moment three participants from the same condition reached the group discussion task. If after three minutes three participants from the same condition had not reached that the group discussion task, then the chat room did not open, the study ended, and participants were paid for their participation. Again, their data was not collected. If three participants from the same condition reached the group discussion task within three minutes of each other, the chat room went live, and participants were able to communicate with each other via text for three minutes before the chat room closed again. Participants in the loyalty condition were told that their discussion topic was loyalty and, given the same prompts used in our prior laboratory studies, those in the control condition were told to discuss the weather and given the same prompts related to the weather. All participants were provided with anonymous IDs during the group discussion task and could see everyone else's comments. At the end of the group discussion task, participants in the loyalty condition were asked to pledge their loyalty to their group for the duration of the study by writing "I pledge my loyalty to my group."

Cheating task. Participants completed the same cheating task used in prior studies but were given just three minutes to complete the task. Instead of circling a pair of numbers that added to 10, participants were asked to type either of the two numbers that added to 10 into a response box. Participants could earn $0.05 for each of the 20 puzzles they solved. They were told that two other groups were completing the same task and that members of the group with the highest average score would each earn an additional $1 bonus. After completing the task, participants self-reported their own performance, which provided them with an opportunity to cheat.

Competition manipulation. Participants were randomly assigned to receive one of two messages included in the instructions for the problem-solving task. In the low-competition condition, participants received the message "Please take these tasks seriously. Good Luck!" In the high-competition condition, participants received the message "Please take these tasks seriously. The better you perform on these tasks the more your group will earn. You're in

competition with two other groups and the winning group will receive a big bonus. It is tough competition, but you can win. Good luck!" (Emphasis was included in the stimuli).

Post-task questionnaire. Participants completed measures of loyalty, competition, and ethicality (used in study 4) as well as measures of group identification and liking.

Manipulation check #1: Loyalty. As a manipulation check, participants completed a three-item measure of loyalty. They rated the extent to which they agreed with the statements "I feel loyal to this group," "I pledged my loyalty to my group," and "I had obligations to my group" (1 disagree strongly, 7 agree strongly). The items were averaged together to create a measure of loyalty (α = .83).

Manipulation check #2: Competition. Participants completed a three-item measure of competition designed to test the effectiveness of our competition manipulation. They rated the extent to which they agreed with the statements "It was a tough competition," "Competition did not matter" (reverse scored), and "It was important that my group won" (1 disagree strongly, 7 agree strongly). The items were averaged together to create a measure of competition (α = .70).

Group identification. Participants completed the same 12-item measure of group identification used in Studies 1B and 2B. The items were combined into a measure of Group Identification (α = .88).

Liking. Participants completed the three-item measure of liking used in Study 2B. The items were average together to create a measure of liking (α = .88).

Results

A summary of the descriptive statistics of the main variables measured in the study is presented in Table 7.

[Insert Table 7 about here]

Manipulation checks. Participants in the loyalty condition reported feeling more loyal (M = 5.99, SD = 1.08) than those in the control condition (M = 4.02, SD = 1.56) t (206) = 10.543, $p < .001$, d = 1.46. Participants in the high-competition condition felt more competitive (M = 5.13, SD = 1.26) than those in the low-competition condition (M = 4.71, SD = 1.57) t (206) = 2.137, p = .034, d = .30.

Cheating. For participants in the low-competition condition, those in the loyalty condition were less likely to cheat (31%, 15 out of 48) than those in the control condition (65%, 34 out of 52), χ^2 (1, N = 106) = 11.64, p = .001. In contrast, for participants in the high-competition condition, there was not a significant difference in the level of cheating between those in the loyalty condition (51%, 26 out of 51) and those in the control condition (60%, 33 out of 55), χ^2 (1, N = 106) = .872, ns (see Figure 2).

There was no effect of competition on the propensity to cheat for those in the control conditions χ^2 (1, N = 107) = .331, ns. However, competition significantly increased the propensity to cheat for those in the loyalty condition, χ^2 (1, N = 99) = 3.967, p = .046.

Group identification, liking and general ethicality. Additional analyses confirmed that while group identification was significantly related to loyalty, it was not related to cheating in either competition condition. Liking was significantly related to loyalty in the low-competition condition but not the high-competition condition, but was not significantly related to cheating in either competition condition. Moreover, neither group identification nor liking explained or moderated the effects of loyalty on cheating, again failing to provide support for Hypothesis 4. Similarly, self-reported ethicality did not explain the effects of loyalty on cheating.

Discussion

Competition again moderated the effects of loyalty on cheating providing further support for Hypothesis 3. Loyalty was significantly related to less cheating when competition was low, but not when competition was high. Group identification, liking and general ethicality did not explain the effects of loyalty on unethical behavior.

Study 5B: Loyalty, Competition, and Cheating Online

I employed the same design and recruited subjects from the same online pool as that used in Study 5A but employed a different manipulation of competition to enhance internal validity.

Method

Participants. Two hundred nine subjects (119 female, M_{age} = 33.39, *SD* = 11.06) recruited from Amazon Mechanical Turk were paid $0.50 for participating in the study and given the opportunity to earn additional money for themselves and their groups depending on their performance on the problem-solving task used in prior studies.

The study design and tasks were identical to those used in study 5A except for two changes including (1) a revised competition manipulation and (2) a post-task questionnaire with measures of loyalty, competition and liking but not ethicality or group identification.

Competition manipulation. The manipulation of competition was the same as that used in Study 5A except the message communicated to participants in the control condition. In this study, the message stated "Please take these tasks seriously. The better you perform on these tasks the more your group will earn. It is tough, but you can win. Good luck!"

Results

Manipulation checks. Participants in the loyalty condition reported feeling more loyal (*M* = 5.83, *SD* = .95) than those in the control condition (*M* = 4.04, *SD* = 1.44) *t* (207) = 10.790, $p < .001$, *d* = 1.46. Participants in the high-competition condition felt more competitive (*M* = 4.98, *SD* = 1.38) than those in the low-competition condition (*M* = 4.45, *SD* = 1.42) *t* (207) = 2.732, *p* = .007, *d* = .38.

Cheating. For participants in the low-competition condition, those in the loyalty condition were less likely to cheat (40%, 20 out of 50) than those in the control condition (66%, 36 out of 55), χ^2 (1, *N* = 105) = 6.818, *p* = .009. In contrast, for participants in the high-

competition condition, there was not a significant difference in the level of cheating between those in the loyalty condition (60%, 32 out of 53) and those in the control condition (56%, 28 out of 50), χ^2 (1, N = 103) = .203, ns (see Figure 2).

There was no effect of competition on the propensity to cheat for those in the control conditions χ^2 (1, N = 105) = .321, ns. However, competition significantly increased the propensity to cheat for those in the loyalty condition, χ^2 (1, N = 103) = 4.274, p = .039.

Liking. Liking was not significantly related to loyalty, competition or cheating and did not explain or moderate the effects of loyalty on cheating.

Discussion

Consistent with the findings of Studies 4 and 5A, competition moderated the effects of loyalty on cheating. Loyalty was significantly related to less cheating when competition was low, but not when competition was high.

CHAPTER 7

Demonstrating uniqueness and loyalty's role as an ethical principle

Studies 6A and 6B examined whether the moderated effects of loyalty on cheating were unique to loyalty and whether the loyal judged their actions as unethical online and in the lab and found support for Hypotheses 5 and 6.

Study 6A: Loyalty vs. other ethical principles, competition and cheating online

The primary aim of Study 6A was to test whether the whether the effects of loyalty on unethical behavior are unique to loyalty or apply more broadly to other ethical principles. As shown in studies 4, 5A and 5B when the goals of the group are less clear, pledging loyalty leads to less cheating, whereas when the goals of the group are more salient and those goals conflict with other moral concerns, the loyal cheat more. To test whether these effects are unique to loyalty, I compared loyalty to three other ethical principles and moral values including honesty, fairness and sanctity (see Chapter 1); I manipulated the salience of these ethical principles using a group discussion task and the salience of the goals of the group using a competition manipulation and tested whether the salience of these differing ethical principles predicted more or less cheating on a problem solving task. Along an exploratory vein, I also considered the effects of loyalty on cheating in the absence of a loyalty pledge.

Method

Participants. 602 participants (340 female; M_{age} = 34.00, SD = 11.82) recruited from Amazon Mechanical Turk were paid $0.50 for participating in the study and given the opportunity to earn additional money for themselves and their groups depending on their performance on the problem-solving task used in prior studies.

The study design was similar to that used in studies 5A and 5B and comprised of a prescreening questionnaire, a group discussion task, a cheating task, and a post-task questionnaire, all embedded in a survey. Subjects were randomly assigned to a 6 (loyalty vs. loyalty-no-pledge vs. honesty vs. fairness vs. sanctity vs. control discussion task) x 2 (high vs. low goal salience) between-subjects design. Broken down by goal salience condition (low-goal salience, high-goal salience) the number of subjects in each discussion condition was: control (56, 47), loyalty pledge (51, 42), loyalty no-pledge (50, 58), honesty (47, 57), fairness (43, 57), and sanctity (51, 43).

Pre-screening questionnaire. Prior to taking part in the main study, participants completed a brief questionnaire which included attention checks. Participants who failed the attention checks were prevented from taking part in the main study and from signing up to the study again. Their responses were not collected.

Group discussion task. Participants were randomly assigned to one of six chatrooms embedded in the survey. Participants were given an anonymous ID and asked to wait for up to three minutes for two other participants to arrive in the chatroom. If three participants arrived in

a chatroom within that time the chatroom went "live," otherwise it was closed and participants were thanked and paid for their time. Participants in live chatrooms were prompted to discuss a topic which varied by chatroom and then communicated with each other via text for three minutes before the chat room closed. Those in the loyalty and loyalty-no-pledge chatrooms were told that their discussion topic was loyalty; those in the honesty, fairness and sanctity conditions were told their discussion topics were honesty, fairness (i.e. justice and proportionality) and sanctity (/purity) respectively; while those in the control condition were told to discuss the weather (stimuli are included in Appendix 4). Participants in the loyalty condition were asked to pledge their loyalty to their group for the duration of the study by writing "I pledge my loyalty to my group."

Problem-solving task. Participants completed a standard problem solving task that is often used to assess cheating behavior (Gino, Schweitzer, Mead, and Ariely, 2011; Mazar, Amir, and Ariely, 2008). They were given three minutes to complete the task of identifying as many pairs of numbers as they could from 20 matrices of 12 numbers which added to 10. For every pair of numbers participants identified they would earn $0.05 and could earn an additional $1 bonus if the combined scores of the three members of their group exceed the combined scores of members from each of two other randomly chosen groups completing the task. Participants self-reported their scores and were deemed to have cheated if those self-reported scores exceeded their actual score on the task.

Goal salience manipulation. Participants were randomly assigned to either a low- or high-goals salience condition and received one of two messages in the instructions for the problem-solving task. In the low-goal salience condition participants were told "Please take these tasks seriously. Good Luck!" In the high-goal-salience condition, participants received the message "Please take these tasks seriously. The better you perform on these tasks the more your group will earn. You're in competition with two other groups and the winning group will receive a big bonus. It is tough competition, but you can win. Good luck!" (Emphasis was included in the stimuli).

Post-task questionnaire. Participants completed manipulation checks for loyalty, fairness, sanctity and competition by rating the extent to which they agreed with a number of statements (1 disagree strongly, 7 agree strongly) which were then combined together to form the relevant manipulation check measure. Loyalty: participants rated the extent to which they agreed with the statements "I feel loyal to this group," "I pledged my loyalty to my group," and "I had obligations to my group" (α = .79); fairness: "Fairness was important," "Justice did not matter" (reverse scored), "It was important that no-one was treated differently during the game" (α = .65); Sanctity: "Purity and decency mattered a lot," "It was important not to violated standards of purity and decency during the study," (r = .81); Competition: "It was a tough competition," "Competition did not matter" (reverse scored), and "It was important that my group won" (α = .65). Factor analyses (using varimax rotation) indicated that for each measure the relevant items loaded onto one factor.

Given the potential demand effects associated with asking participants the extent to which they were honest after they had just completed a task which tested their honesty, I used an

alternative manipulation check for honesty. Participants were given 90 seconds to complete a number of word fragments which included two target words which could be completed with the words Honesty and Truth or with neutral words. The manipulation check for honesty comprised the number of target words participants correctly identified.

Measures of liking and creativity were used as filler items to reduce participants suspicion of the hypotheses. I have not coded or analyzed these measures but the data is available on request.

Results

Manipulation checks. The manipulation checks for loyalty, honesty and competition were successful: participants in the loyalty and loyalty-no-pledge conditions reported being significantly more loyal (Loyalty: $M = 6.12$, $SD = .87$; Loyalty-no-pledge: $M = 4.68$, $SD = 1.56$) than those in the control condition ($M = 3.71$, $SD = 1.50$) t (194) = 13.504, $p < .001$, $d = 1.93$; and t (209) = 4.594, $p < .001$, $d = .63$, respectfully. Those in the loyalty and pledge conditions (combined: $M = 6.35$, $SD = 1.52$) reported feeling more loyal than those in the other conditions (combined: $M = 4.23$, $SD = 1.47$) t (600) = 8.550, $p < .001$, $d = .74$. Those in the loyalty condition were also reported feeling more loyal than those in the control, honesty, sanctity and fairness conditions (combined: $M = 4.24$, $SD = 1.52$) t (507) = 2.692, $p = .007$, $d = .29$. Participants in the honesty condition identified reported more words related to honesty and truth (one word: 22/104; two words: 6/104) than those in the control condition (one word: 3/103; two words: 1/103) χ^2 (2, N = 207) = 21.03, $p < .001$. Participants in the high-goal-salience condition reported feeling more competitive ($M = 5.04$, $SD = 1.04$) than those in the low-goal-salience condition ($M = 4.26$, $SD = 1.39$) t (600) = 7.330, $p < .001$, $d = .60$.

The manipulation checks for fairness and sanctity failed indicating that participants in the fairness condition reported feeling no fairer ($M = 5.52$, $SD = 1.09$) than those in the control condition ($M = 5.38$, $SD = 1.22$) t (201) = .888, ns; and participants in the sanctity condition feeling that sanctity and decency mattered no more ($M = 4.93$, $SD = 1.60$) than those in the control condition ($M = 4.47$, $SD = 1.81$) t (195) = 1.904. $p = .058$, $d = .27$. The tests of our hypotheses was therefore limited to loyalty vs. honesty, though I note that the results for fairness and sanctity were directionally consistent in the low goal salience condition but unsurprisingly not significant.

Cheating. For participants in the low-goal-salience condition, those in the loyalty pledge and honesty conditions were less likely to cheat (Loyalty pledge: 41%, 21 out of 51; Honesty: 47%, 22 out of 47) than those in the control condition (64%, 36 out of 56), χ^2 (1, N = 107) = 5.726, $p = .017$; and χ^2 (1, N = 103) = 3.173, $p = .075$, respectively. Exploratory analyses revealed that participants in the loyalty-no-pledge condition were also less likely to cheat (48%, 24 out of 50) than those in the control condition χ^2 (1, $N = 106$) = 2.852, $p = .091$, though the effects were smaller as expected.

In contrast, for participants in the high-competition condition, those in the honesty condition were again less likely to cheat (51%, 29 out of 57) than those in the control condition (68%, 32 out of 47) χ^2 (1, $N = 104$) = 3.145, $p = .076$ whereas those in the loyalty pledge

condition were no more likely to cheat (71%, 30 out of 42) than those in the control condition χ^2 (1, N = 89) = .117, ns. Similarly, exploratory analyses revealed that those in the loyalty-no-pledge condition were no more likely to cheat (64%, 37 out of 58) than those in the control condition χ^2 (1, N = 105) = .212, ns (see Figure 3).

[Insert Figure 3 about here]

There was no effect of competition on the propensity to cheat for those in the control condition χ^2 (1, N = 103) = .164, ns nor those in the honesty condition χ^2 (1, N = 104) = .171, ns. However, competition significantly increased the propensity to cheat for those in the loyalty condition, χ^2 (1, N = 93) = 8.511, p = .004. Exploratory analyses revealed that competition also increased the propensity to cheat for those in the loyalty-no-pledge condition though the effects were weaker than for those in the loyalty condition χ^2 (1, N = 108) = 2.725, p = .099.

Discussion

The results of Study 6A show that participants primed with loyalty or honesty were less likely to cheat than other participants when the goals of their groups were less salient. However, when the goals of the group were made clearer and those goals conflicted with other moral concerns, the loyal cheated more, whereas those primed with honesty continued to cheat less. This suggests that the dual aspect of loyalty as both virtue and vice applies to loyalty and not honesty. However, I failed to successfully manipulate feelings of fairness and sanctity in the current study, possibly because it was not clear what fairness related to (e.g. other participants or the experimenter or the minimal pay they received for taking part) and confusion over what sanctity meant. I address the manipulation of fairness issue in study 6B by specifying the target of fairness (other participants taking part in the study). I also attempt to rule out an alternative explanation for our results, that it is pledging loyalty that drives the loyal to act more ethically and cheat. In study 6B participants pledge in every condition.

Though competition moderated the effect of loyalty on cheating, there was not a significant difference in cheating between participants in the loyalty and control conditions when competition was high. This may be due to a ceiling effect given the high levels of cheating observed in the control conditions (64% and 68%). That is there may be a minority of people unwilling to cheat under any circumstance and those who are willing to cheat need no more incentive to do so in the current study where pay for participation is low and participants may feel entitled to being paid more for their time. To address this issue we returned to the lab in study 6B and paid participants well for their participation to remove the possibility that they'd feel entitled to be paid more. We also used two new tasks where pilot testing suggested less people acted unethically in the absence of incentives to do so.

Study 6B: Loyalty vs. fairness and the effects of competition on lying & cheating in the lab

The primary aims of Study 6B were to (1) find additional support for the uniqueness hypothesis that competition moderates the effects of loyalty but not fairness on unethical behavior, and (2) rule out the alternative explanation that it is pledging that drives the moderated

effects of loyalty on ethical behavior, and (3) find evidence that the loyal believe their actions are moral even when those actions conflict with other ethical concerns.

Method

Participants. 300 participants (168 female; M_{age} = 20.86, *SD* = 3.76) from a large West Coast university participated in the study for class credit and /or cash payment. All participants received either class credit or $5 for showing up to the study and had the opportunity to earn up to $6 more depending on their decisions on the problem-solving tasks. Six participants were recruited in each experimental session and randomly assigned a 3 (loyalty vs. fairness vs. control group discussion) x 2 (high vs. low competition) factorial design. Experimental sessions were run back to back, and same-sex participants were recruited for each session. In each session, participants were assigned to groups of three same-condition participants. Broken down by goal salience condition (low-goal salience, high-goal salience) the number of subjects in each discussion condition was: control (55, 44), loyalty (54, 48), fairness (45, 54).

The study included four tasks: a group discussion designed to prime loyalty or fairness in the treatment conditions, two individual problem-solving tasks used to assess lying and cheating which also included the competition manipulation, and a questionnaire which included manipulation checks and a measure of ethicality. Subjects were then probed for suspicion, debriefed, and paid. During the individual problem-solving tasks and subsequent suspicion checks, participants sat in private cubicles and did not interact with each other. During both the group discussion task and the individual problem-solving tasks, the experimenter stepped out of the room.

Loyalty and Fairness manipulations. Participants in the loyalty (*N* = 102), fairness (*N* = 99) and control (*N* = 99) conditions were given 10 minutes to discuss "loyalty," "fairness (i.e. impartiality)," and "the Industrial Revolution" respectively with their groups. In all three conditions, participants then signed a pledge: "I pledge [control condition: "to take part in this study;" loyalty condition: "my loyalty to my group;" fairness condition: "to be fair (i.e. impartial) to everyone taking part in this study for the duration of the study."

Competition manipulation. Participants were assigned to private cubicles and randomly assigned to receive one of two messages included in the instructions for the problem-solving tasks. In the low-competition condition (*N* = 153), participants received the message "Please take these tasks seriously. Good Luck!" In the high-competition condition (*N* = 147), participants received the message "Please take these tasks seriously. The better you perform on these tasks the more your group will earn. You're in competition with two other groups and the winning group will receive a big bonus. It is tough competition, but you can win. Good luck!" (Emphasis was included in the stimuli).

Lying and Cheating Tasks. Participants completed two problem-solving tasks designed to assess lying and cheating. The order that participants completed the problem-solving tasks was randomly assigned at the group-level.

Deception Game. Participants completed a modified version of the deception game (Gneezy, 2005; Sutter, 2009) in which there were told that they would be interacting with a participant from another group and would be randomly assigned to one of two roles in a "Decision Game," i.e., sender or receiver. In fact, all participants were assigned to the role of sender. The instructions indicated that the sender but not the receiver had been told of two potential payoff structures for the game: (A) $5 to the sender's group and $6 to the receiver's group and (B) $6 to the sender's group and $5 to the receiver's group. In phase 1 of the game, they were told that the sender would send one of the two messages to the receiver indicating that either (1) option A would pay the receiver more money (i.e. the truth), or (2) option B would pay the receiver more money (i.e. a lie). In phase 2 of the game, the receiver would then decide which option to select ostensibly on the basis of the sender's message and game payoffs would be based on this decision. To remove any uncertainty about what the receiver might do, we employed the same modification that Cohen, Gunia, Kim-Jung & Murnighan (2009) used in which participants were told that the receiver had preemptively committed to following the recommendation that the sender sent. Participants who sent the message 1 therefore lied.

Word-jumble task. Participants completed a modified version of the word-jumble task (Wiltermuth, 2009) in which they were provided with nine word jumbles to unscramble. The words were identical to those used by Wiltermuth (2009) except for the third word which we replaced with one that could not be solved (A A P R T E T E K) which has been used in prior research (Hildreth & Anderson, 2016). Participants were given 3 minutes to complete the task and told that the word scrambles had to be completed sequentially in the order they appeared. They were told that their score would be added to the scores of their two group members and the groups with the highest group scores would receive $100 prizes.

At the end of the task, participants were asked to self-report the number of word jumbles they had solved and told to destroy the instruction sheet, ostensibly so that it would not be shared with other participants, but also to subtly underline the fact that there would be no evidence of participants' actual performance when they self-reported their scores. Participants who reported a score of 3 or more on the task therefore cheated.

Measure of ethicality. Participants rated the extent to which they agreed with three statements (1 strongly disagree, 7 strongly agree) "my decisions were unethical" (reverse scored), "my actions were ethical," and "I acted morally" (α = .84) which were embedded within a larger survey that included various filler items to prevent participants guessing the hypotheses.

Manipulation and suspicion checks. Participants completed 3-item manipulation checks for loyalty: "I feel loyal to this group," "I pledge my loyalty to the group," "I had loyal obligations to other group members," (α = .72); fairness: "fairness to all participants in the study was important," "I felt compelled to act impartially to all participants taking part," and ""my actions were fair," (α = .75); and competition: "It was a tough competition," "competition did not matter," "it was important that my group won," (α = .71) by rating the extent to which they agreed with each statement (1 completely disagree, 7 completely agree).

At the end of every study, participants were probed for suspicion using two-item open-ended suspicion probes (Chen, Lee-Chai and Bargh, 2001): "Did you find anything strange or unusual about the experimental procedures?" and "What do you think is the purpose of this experiment?" Participants were then debriefed, thanked, and paid based on their group's reported performance as described above.

Measures of lying and cheating. The dichotomous variable "Lied" was coded 1 if a participant sent message 2 in the Decision Game and coded 0 otherwise. The dichotomous variable "Cheated" was coded 1 if a participant reported solving 3 or more jumbled words, and coded 0 otherwise. We also created a continuous measure of the "Amount Cheated" computed as the maximum of (a) the participant's self-reported score on the jumbled word task minus two, and (b) zero.

Results

Manipulation and suspicion checks. Participants' responses to the suspicion checks in the post-experiment questionnaires revealed that none guessed the hypothesis being tested in any of the studies; therefore, we report results for all participants in all. The manipulation checks were successful: participants in the loyalty condition reported being significantly more loyal (M = 5.17, SD = 1.17) than those in the control condition (M = 3.96, SD = 1.56) t (199) = 6.27, $p < .001$, d = .88. Similarly, participants in the fairness condition reported being significantly fairer (M = 5.21, SD = 1.34) than those in the control condition (M = 4.64, SD = 1.48) t (195) = 2.83, p = .005, d = .40. Participants in the high-competition condition felt more competitive (M = 4.34, SD = 1.44) than those in the low-competition condition (M = 3.65, SD = 1.37) t (298) = 4.35, $p < .001$, d = .50.

Cheating. Overall 43% (130 out of 300 participants) cheated on the word jumble task by reporting a score of three or more. A three-way cross-tabulation for the effects of competition on cheating controlling for discussion category revealed a significant effect for competition on cheating, χ^2 (2, N = 300) = 4.1444, p = .0242 which varied by category of discussion indicating a significant interaction effect. For participants in the low-competition condition, those in the loyalty condition were less likely to cheat (30%, 16 out of 54) than those in the control condition (51%, 28 out of 55), χ^2 (1, N = 109) = 5.126, p = .024. Similarly, those in the fairness condition were also less likely to cheat (31%, 14 out of 45) than those in the control condition, χ^2 (1, N = 100) = 3.982, p = .046.

In contrast, for participants in the high-competition condition, those in the loyalty condition were more likely to cheat (63%, 30 out of 48) than those in the control condition, χ^2 (1, N = 92) = 5.232, p = .022. However, there was not a significant different in the level of cheating for those in the fairness condition (46%, 25 out of 54) and those in the control condition χ^2 (1, N = 98) = .581, ns (see Figure 4).

There was no effect of competition on the propensity to cheat for those in the control condition χ^2 (1, N = 99) = 1.485, ns nor those in the fairness condition χ^2 (1, N = 99) = 2.371, ns. However, competition significantly increased the propensity to cheat for those in the loyalty condition, χ^2 (1, N = 102) = 11.089, p = .001.

[Insert Figure 4 about here]

Lying. 52% (155 out of 300 participants) lied on the decision game by sending a false message. For participants in the low-competition condition, those in the loyalty condition were marginally significantly less likely to lie (41%, 22 out of 54) than those in the control condition (58%, 32 out of 55), χ^2 (1, N = 109) = 3.316, p = .069. However, there was not a significant difference in the likelihood of lying between those in the fairness condition (49%, 22 out of 45) than those in the control condition, χ^2 (1, N = 100) = .860, ns.

In contrast, for participants in the high-competition condition, those in the loyalty condition were more likely to lie (75%, 36 out of 48) than those in the control condition (52%, 23 out of 44), χ^2 (1, N = 92) = 5.155, p = .023. However, there was not a significant difference in the level of lying for those in the fairness condition (37%, 20 out of 54) and those in the control condition χ^2 (1, N = 98) = 2.285, ns (see Figure 4).

There was no effect of competition on the propensity to lie for those in the control condition χ^2 (1, N = 99) = .346, ns nor those in the fairness condition χ^2 (1, N = 99) = 1.412, ns. However, competition significantly increased the propensity to lie for those in the loyalty condition, χ^2 (1, N = 102) = 12.159, p < .001.

Ethical behavior

Participants lying and cheating behavior did not happen in isolation and it is possible that those who lied did not cheat and vice versa. We therefore created two new measures of ethical behavior including *Unethical* coded 0 if participants were honest in reporting their scores on the word unscramble task and told the truth in the deception game and 1 otherwise. The second measure *CheatedAndLied* was coded 1 if participants cheated on the word scramble task and lied in the deception game and 0 otherwise.

Unethicality (i.e., cheating or lying or both)

For participants in the low-competition condition, those in the loyalty condition were marginally significantly less likely to cheat and/or lie (56%, 30 out of 54) than those in the control condition (73%, 40 out of 55), χ^2 (1, N = 109) = 3.497, p = .061. In contrast, there was not a significant difference in the likelihood of cheating and/or lying between participants in the fairness condition (62%, 28 out of 45) and those in the control condition, χ^2 (1, N = 100) = 1.255, *ns*.

In contrast, for participants in the high-competition condition, those in the loyalty condition were more likely to cheat and/or lie (85%, 41 out of 48) than those in the control condition (68%, 30 out of 44, χ^2 (1, N = 92) = 3.871, p = .049. However, there was not a significant different in the level of cheating and/or lying for those in the fairness condition (65%, 35 out of 54) and those in the control condition χ^2 (1, N = 98) = .123, ns (see Figure 4).

There was no effect of competition on the propensity to cheat for those in the control condition χ^2 (1, N = 99) = .244, ns nor those in the fairness condition χ^2 (1, N = 99) = .071, ns.

However, competition significantly increased the propensity to cheat or lie for those in the loyalty condition, χ^2 (1, N = 102) = 10.711, p = .001.

Cheating and lying

For participants in the low-competition condition, those in the loyalty condition were marginally significantly less likely to both cheat and lie (15%, 8 out of 54) than those in the control condition (36%, 20 out of 55), χ^2 (1, N = 109) = 6.628, p = .01. Similarly, there participants in the fairness condition were less likely to both cheat and lie (18%, 8 out of 45) and those in the control condition, χ^2 (1, N = 100) = 4.241, p = .039.

In contrast, for participants in the high-competition condition, those in the loyalty condition were more likely to both cheat and lie (52%, 25 out of 48) than those in the control condition (23%, 10 out of 44, χ^2 (1, N = 92) = 8.393, p = .004. However, there was not a significant different in the likelihood that participants both cheated and lied between those the fairness condition (19%, 10 out of 54) and those in the control condition χ^2 (1, N = 98) = .264, ns (see Figure 4).

There was no effect of competition on the propensity to both cheat and lie for those in the control condition χ^2 (1, N = 99) = 2.152, ns nor those in the fairness condition χ^2 (1, N = 99) = .009, ns. However, competition significantly increased the propensity to both cheat and lie for those in the loyalty condition, χ^2 (1, N = 102) = 16.127, p < .001.

Judgments about the morality of unethical actions

Participants judged the ethicality of their actions after having completing both deception and word-scramble tasks and their judgements therefore depended on cheating and lying behaviors. We therefore compared and contrasted ethical judgments separately for those who whose actions were ethical (i.e., honest and true) and those who were not.

Ethical participants. For ethical participants (those who were honest and told the truth) in the low-competition condition, ethical ratings for those in the loyalty condition (M = 6.01, SD = 1.11) and those in the fairness condition (M = 6.27, SD = 1.02) did not differ significantly from those in the control condition (M = 6.29, SD = .88), t (37) = .422, ns and t (30) = -.042, ns, respectively.

For ethical participants in the high-competition condition, ethical ratings of those in the loyalty condition (M = 5.38, SD = .71) were surprisingly marginally significantly lower than those in the control condition (M = 6.12, SD = 1.07), t (19) = -1.891, p = .076, perhaps due to guilt from not living up to their loyal obligations. Ratings for those in the fairness (M = 6.07, SD = .96) and control conditions did not differ significantly from each other t (31) = -.138, ns (see Figure 5).

There was no effect of competition on ethical ratings for ethical participants in the control condition t (27) = -.466, ns or the fairness condition t (34) = -.619, ns. However, there was a marginally significant negative effect of competition on ethical ratings for ethical participants in the loyalty condition t (29) = -1.809, p = .090.

[Insert Figure 6 about here]

Unethical participants. For unethical participants (those who cheated and/or lied) in the low-competition condition, ethical ratings for those in the loyalty condition (M = 4.44, SD = 1.49) were marginally significantly lower than those in the control condition (M = 5.09, SD = 1.21), t (68) = -1.943, p = .057. Similarly, ethical ratings of those in the fairness condition (M = 4.50, SD = 1.40) were marginally significantly lower than those in the control condition t (66) = -1.810, p = .076.

Also, as expected in the low competition condition, unethical participants rated their actions as significantly lower than ethical participants in all three discussion conditions (loyalty: t (52) = -4.431, p < .001; fairness: t (43) = -4.892, p <.001. control: t (53) = -4.025, p < .001).

For unethical participants in the high-competition condition, ethical ratings of those in the loyalty condition (M = 5.69, SD = 1.48) were significantly higher than those in the control condition (M = 4.82, SD = 1.55), t (69) = 2.378, p = .021. Ratings for those in the fairness (M = 4.70, SD = 1.31) and control conditions did not differ significantly from each other t (63) = -.353, ns.

As expected, in the high-competition condition, unethical participants rated their actions as significantly lower than ethical participants in the fairness and control conditions (fairness: t (52) = -4.400, p < .001. control: t (42) = -3.227, p = .003). However, there was no difference in the ethicality ratings of ethical vs. unethical participants in the loyalty condition t (46) = .541, ns.

There was no effect of competition on ethical ratings for unethical participants in the control condition t (68) = -.816, ns or the fairness condition t (61) = .569, ns. However, there was a significant negative effect of competition on ethical ratings for unethical participants in the loyalty condition t (69) = 3.497, p = .001.

Participants who cheated and lied. For participants who cheated and lied in the low-competition condition, ethical ratings for those in the loyalty condition (M = 3.92, SD = 1.71) and fairness conditions (M = 4.42, SD = 1.35) did not differ significantly from those in the control condition (M = 5.08, SD = 1.30), t (26) = -1.741, p = .111, and t (26) = -1.190, ns, respectively. The differences between these non-significant effects and the significant effects for those who were unethical (see above) suggests that participants who both cheated and lied (rather than just cheated or lied) may have engaged in moral disengagement tactics, though this is an empirical question for future research.

For participants who cheated and lied in the high-competition condition, ethical ratings of those in the loyalty condition (M = 5.93, SD = 1.26) were significantly higher than those in the control condition (M = 4.43, SD = 1.53), t (33) = 2.746, p = .016. Ratings for those in the fairness (M = 4.40, SD = 1.19) and control conditions did not differ significantly from each other t (18) = -.054, ns. These results are consistent with those of unethical participants described above.

There was no effect of competition on ethical ratings for participants who cheated and lied in the control condition t (28) = -1.150, ns or the fairness condition t (16) = -.027, ns.

However, there was a significant negative effect of competition on ethical ratings for participants who cheated and lied in the loyalty condition t (31) = 3.083, p = .012.

Discussion

The results of Study 6B lend additional support to the uniqueness hypothesis. Participants who pledged their loyalty were less likely to cheat or lie than participants who merely pledged their participation when the goals of their groups were less salient. Participants who pledged impartiality were also less likely to cheat than those who pledged their participation but no more likely to lie, perhaps because of the dichotomous nature of the lying task which makes standards of impartiality difficult to assess (is lying to benefit the self, less impartial than telling the truth and losing out?).

When the goals of the group were made clearer and those goals conflicted with other moral concerns, those who pledged their loyalty cheated and lied more than those who pledged their participation, whereas those who pledged their impartiality did not. Additional analyses using combined measures of ethicality yielded consistent results. Therefore, the dual aspect of loyalty as both virtue and vice does not appear to apply to fairness considerations lending additional support to the uniqueness hypothesis.

Participants judgements of the ethicality of their actions lent support to the idea that the loyal view their actions as moral when they are consistent with their loyal obligations. Surprisingly, we found that the loyal rated their ethical actions as less moral than other participants' ratings of ethical actions suggesting that the loyal feel guilty about their actions when those actions are inconsistent with their loyal obligations.

CHAPTER 8

Conclusion, contributions and future research

General Discussion

The purpose of this dissertation was to find evidence for loyalty's role as an ethical principle in lay psychology. The current research first tested the counterintuitive hypothesis that the more loyal a person is to a group, the more likely she is to act ethically, even if acting unethically would benefit the group. Across the first six studies, I found consistent support for this hypothesis.

In Studies 1A and 1B, participants primed with loyalty were less likely to cheat than participants in the control condition on a problem-solving task. Studies 2A and 2B help to generalize these findings to settings outside of the laboratory involving actual relationships where loyalty is an explicit expectation (i.e., fraternities in Study 2A) and where it is not (i.e., study groups in Study 2B). Members who reported feeling more loyalty to their fraternities or study groups were less likely to cheat than those who felt less loyal on the same problem-solving task used in Studies 1A and 1B. Moreover, loyal members were more likely than others to blow the whistle on unethical behavior, a finding that demonstrates that the effects of loyalty on ethical behavior are not limited to cheating. In Studies 3A and 3B, I returned to the laboratory to identify a potential explanation for these findings: Participants in the loyalty conditions were less likely to cheat than those in the control conditions because loyalty increased the salience of ethical considerations in the problem-solving tasks (Studies 3A and 3B) and increased expectations of support from the group (Study 3B non-pledge condition).

Next I tested the more intuitive hypothesis that in certain contexts loyalty might foster corruption. Specifically, that when the salience of loyal goals is clear and those goals conflict with other ethical concerns then the loyal will feel compelled to act unethically. Three studies found evidence that competition is a moderator of the effects of loyalty on ethical behavior. When competition was low, members who reported feeling more loyal to their fraternities (Study 4) and individuals who pledged their loyalty to each other online (Studies 5A and 5B) were less likely to cheat than those who felt less loyal or had not pledged their loyalty to each other. However, these effects of loyalty on unethical behavior disappeared when competition was high.

In our final two studies (6A and 6B) I tested the hypothesis that loyalty is unique in prompting people to act unethically when competition is high. I found that participants primed with loyalty but not fairness (both studies), sanctity (Study 6A) or honesty (Study 6A) cheated more when competition was high. Finally, I found evidence that the loyal believed their actions were moral even when those actions conflicted with other ethical concerns including honesty and telling the truth.

Our data has a number of strengths. First, in eight of the studies (1A, 1B, 3A, 3B, 5A, 5B, 6A and 6B) I randomly assigned participants to conditions, allowing for causal inference of the effects of loyalty on cheating. Second, I used an objective measure of unethical behavior in every study (i.e., actual cheating or lying on problem-solving tasks) rather than relying on subjective

self-reports of unethical behavior based on hypothetical scenarios, the predominant paradigm used in previous research on loyalty, which suffer from self-reporting desirability biases. Third, I replicated the laboratory findings of Studies 1A, 1B, 3A, 3B and 6B in contexts involving actual loyalties (Studies 2A, 2B, and 4) and with people from an online pool (Studies 5A, 5B and 6A), enhancing the generalizability and external validity of our findings. Finally, I were able to address a number of alternative explanations for our results: There was no evidence that the effects of loyalty on cheating were due to loyal participants exerting more effort than others on the problem-solving task (all studies except Study 1B),[7] liking each other more (first nine studies), identifying with their groups more (Studies 1B, 2A, 2B, 4 and 5A), being more committed to their groups (Studies 2A, 2B and 4), feeling more fused to their groups (Study 3A), acting more ethically in general (Studies 2A, 2B, 4 and 5A), or holding self-focused concerns about being moral (Study 3A). The effects of loyalty on ethical behavior did not depend on the act of pledging (see Studies 3B and 6B) or on one type of cheating task (see Studies 2A, 2B and 6B).

Theoretical Implications

Until recently, loyalty has largely been ignored by organizational researchers and social psychologists, who have treated it synonymously with other constructs, such as identification and commitment (Coughlan, 2005, Niehoff, Moorman & Blakely, 2001) or dismissed it as an inherently biased vice inconsistent with universalist conceptions of morality (Brief et al., 1963; Carbone, 1997; Coleman, 2009; Kant, 1797; Kleinig, 1994). The current research builds on recent advances in moral psychology to emphasize the importance of loyalty to individual psychology and provides evidence that loyalty can have positive benefits.

I advance a definition of loyalty that is consistent with its conception as an ethical principle (Haidt, 2001; Haidt & Graham, 2007) and also with its manifest partial nature, which is inherent in many definitions of the construct (e.g., Butler, 1991; Hirschman, 1970; Oliver, 1999; Scott, 1965). This definition enables us to differentiate loyalty from related constructs and demonstrate that loyalty affects individual behavior independent of the effects of such constructs.

The current research is the first to demonstrate that loyalty affects actual ethical behavior. In contrast to the lay theory that loyalty corrupts, I find that loyalty can increase ethical behavior when group goals are unclear, be it by reducing dishonesty in the context of cheating or increasing the propensity to take action against the unethical behavior of others. These findings therefore suggest an upside to loyalty's inherent bias. The results are surprising given the many real-world examples in which loyalty is associated with unethical behavior, from nepotistic selection or promotion processes to failing to blow the whistle on hazing or fraud. The current research also identifies when loyalty leads to ethical and unethical behavior. In contexts when the expectations of loyalty are not explicit, then loyalty acts as a virtue, prompting people to consider the ethics of the situation. In contrast, when expectations of loyalty are more explicit, such as when loyalty is called upon and when it comes into conflict with another ethical principle, such as fairness in selection and promotion processes or not causing harm to the greater good in whistleblowing contexts, then loyalty may give rise to unethical behavior.

I demonstrate that the dual aspect of loyalty in prompting the loyal to act ethically if their loyal goals are less clear or unethically if those goals are more clear and conflict with other ethical concerns is unique to loyalty. Moreover, I find that the loyal judge their own unethical behavior as moral when they act out of a duty of loyalty, providing additional evidence for loyalty's role as an ethical principle in lay psychology.

Our work also contributes to existing research on behavioral ethics, which has identified several factors that lead even good people to engage in unethical behavior. I build on this research by showing that priming people with loyalty or reminding them of this construct can subsequently make them more likely to act honestly.

Limitations and Future Directions

In addition to its strengths, the current data has weaknesses that should be addressed in future studies. First, I considered the effects of loyalty on a limited set of ethical behaviors and in contexts where people faced the temptation to act unethically, i.e., cheating on two problem-solving tasks commonly used in behavioral ethics research, lying in a deception game and on whistleblowing intention in a hypothetical scenario. Future research should consider the effects of loyalty on a broader range of ethical and unethical behaviors, such as stealing, coercion, fraud, etc., as well as examining other forms of loyalty and contexts in which people are not tempted to act unethically.

A second limitation of the current research is that the loyalties I measured were either primed in the lab or present in situations in which participants had known each other for only a limited amount of time (less than one semester in study groups or a couple of years in fraternities). It is therefore unclear whether the effects of loyalty I observed would hold in contexts where loyalties are stronger (e.g., in families or the military) or in organizational contexts where more explicit institutional constraints may dictate behavior and mitigate the positive effects of loyalty found in this research.

Third, while I found no relationship between feelings of commitment and ethical behavior in the three field studies (Studies 2A, 3B and 4), it is possible that this was due to the measure of commitment used. It is possible that if another measure of commitment that includes a stronger ethical dimension or if commitment was manipulated in the same way that loyalty was manipulated in the lab then we might find similar results. I leave this as an empirical question for future research.

Fourth, an alternative explanation for these results might concern the level of loyalty. That is, there may be an optimal level of loyalty that produces moral behavior and a tipping point beyond which loyalty moves from being a force for good to one that corrupts. For example, being loyal to a spouse is a good thing, but if that spouse commits a murder, being loyal past that point is probably bad. While this alternative explanation may account for the main effects of loyalty in the current research, it does not explain why in contexts where loyalty can't be strong (e.g. the online studies), competition rather than level of loyalty moderated the effects of loyalty on cheating. Future research should consider levels of loyalty question further.

Fifth, most of our participants were U.S. citizens. Prior research suggests that Americans may demonstrate greater in-group identification and loyalty than individuals in some Asian countries (Oyserman, Coon, & Kemmelmeier, 2002; Yuki, 2003) but less so than individuals from some European countries (Swann et al., 2009). Further research is needed to test the cross-national generalizability of the current findings.

Finally, future research could investigate the extent to which the effects of loyalty on ethical behavior differ between individuals. Though moral psychologists have argued that loyalty is one of a few ethical principles that govern individual behavior (e.g., Fiske, 1991; Greene, 2014; Haidt & Joseph, 2007; Shweder et al., 1997), the extent to which individuals embrace loyalty over other ethical principles may vary depending on an individual's cognitive moral development (Kohlberg, 1981; 1984), gender (e.g., Melnyk, van Osselaer & Bijmolt, 2009), or political beliefs (Graham et al., 2009; Haidt & Graham, 2007). While in our studies I observed no consistent differences in the effect of gender or age on the relationship between loyalty and ethical behavior, future research should examine whether other demographic or political factors may moderate these effects.

Conclusion

Our research examined loyalty's role as an ethical principle in lay psychology by assessing the relationship between loyalty and unethical behavior. Across eleven studies, I found that loyalty reduces cheating when group goals are unclear: Individuals primed with loyalty or reporting greater loyalty to their groups were less likely to cheat than those not primed or those who were less loyal. I advanced a definition of loyalty consistent with moral psychology, which helped differentiate loyalty from related constructs. I demonstrated that loyalty affected individual ethical behavior independent of the effects of the related constructs of liking, group identification and commitment. The positive effects of loyalty on less cheating were explained by loyalty making the ethics of the situation more salient, consistent with loyalty's role as an ethical principle. Importantly, I also examined a boundary condition for these effects and found that competition moderated the relationship between loyalty and unethical behavior and found evidence that this relationship appears to be unique to loyalty among ethical principles. Finally, I found that the loyal judge their own unethical actions as moral even when those actions conflict with other ethical concerns. Thus, loyalty binds and blinds us to the consequences of our actions.

Footnotes

1. The construct of loyalty has been much more broadly defined in the literature (see Payne & Webber, 2006 and Whiting, Podsakoff, & Pierce, 2008). To be more precise in our theorizing and conceptual development, in our work, I use a narrower definition.

2. The amount that participants cheated was significantly positively skewed and leptokurtic. Standard transformations of the data failed to adequately correct for the multivariate Normality issues. I therefore adopted the dichotomous variable Cheated (1 = cheated, 0 = didn't cheat) as our outcome measure. Results relating to the amount cheated should be interpreted with caution.

3. Consultation with members of the Greek community revealed that participants were unlikely to complete the survey or take it seriously if the survey was too long. I therefore used single-item measures of liking and general ethical behavior, an abbreviated version of the group-identification scale used in Study 1B, and an abbreviated version of the organizational commitment scale cited.

4. The incentive structure was designed after consultation with members of the Greek community. Feedback suggested that $1 per matrix and additional bonus payments (rather than penalties) to the house would be sufficient to motivate members of fraternities to take the task seriously.

5. At the time the study was conducted, all participants needed several research credits to complete their class credit requirements and had limited time or opportunities left to do so. Discussions with other members of the class indicated that this incentive was sufficient to motivate performance.

6. While our measure of status certainty was significantly correlated with Loyalty (r = .264, p = .012), it was not significantly related to cheating (B = -.385, SE = .317, p = .225) and did not explain or moderate the significant relationship between loyalty and cheating.

7. Study 1B was the only study in which I found a marginally significant effect of loyalty on individuals' actual performance (M_{loyal} = 9.36, SD = 4.93; $M_{control}$ = 7.23, SD = 3.84), F (1, 61) = 3.610, p = .062, η^2 = .056.

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TABLES

Table 1
Descriptive statistics for Study 1B

		M	*SD*	1	2	3
1.	Loyalty dummy[1]	0.52	0.50			
2.	Liking	7.06	1.24	.16		
3.	Group Identification	4.64	0.81	.19	.65***	
4.	Cheated dummy[2]	0.29	0.46	-.31*	-.01	-.09

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$
1. Loyalty dummy coded 1 = loyalty, 0 = control
2. Cheated dummy coded 1 = cheated, 0 = did not cheat

Table 2
Descriptive statistics for Study 2A

		M	*SD*	1	2	3	4	5	6	7	8
1.	Loyalty (Overall)	5.55	1.09								
2.	Loyalty (Attitudinal)	5.59	1.21	.92***							
3.	Loyalty (Applied)	5.51	1.16	.92***	.70***						
4.	General ethical behavior	5.57	1.40	.31**	.29**	.27*					
5.	Liking	6.15	0.67	.17	.08	.24*	.03				
6.	Group Identification	5.99	0.75	.14	.20	.05	.15	.08			
7.	Commitment	5.31	0.99	.31**	.34**	.22*	.01	-.15	.38***		
8.	Cheated dummy	0.39	0.49	-.20	-.14	-.24*	.14	-.09	-.01	-.08	
9.	Whistleblowing Intent	4.51	1.74	.22*	.20	.21	.19	.16	-.03	.23*	-.04

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 3
Descriptive statistics for Study 2B

		M	*SD*	1	2	3	4	5	6	7	8
1.	Loyalty (Overall)	4.60	0.97								
2.	Loyalty (Attitudinal)	4.44	1.09	.91***							
3.	Loyalty (Applied)	4.76	1.05	.91***	.66***						
4.	General ethical behavior	5.68	1.79	.21	.13	.25*					
5.	Liking	5.74	1.29	.11	.09	.11	.35***				
6.	Group Identification	5.26	0.74	.42***	.34**	.44***	.30**	.30**			
7.	Commitment	3.88	1.07	.30**	.26*	.29**	.19	.18	.55***		
8.	Cheated dummy	0.20	0.40	-.22*	-.15	-.25*	-.18	.09	-.21	-.09	
9.	Whistleblowing Intent	4.40	1.87	.27**	.26*	.24*	.07	.02	.10	.01	-.03

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 4
Descriptive statistics for Study 3A

		M	*SD*	1	2	3	4	5
1.	Loyalty dummy	0.50	0.50					
2.	Liking	5.70	1.04	-.11				
3.	Identity fusion	3.09	1.15	-.05	.39**			
4.	Moral self-identity	6.09	1.27	-.00	.31*	.28*		
5.	Ethical salience	0.43	0.50	.47***	.05	-.00	.05	
6.	Cheated dummy	0.27	0.45	-.38**	.05	-.12	-.03	-.53***

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 5
Descriptive statistics for Study 3B

		M	*SD*	1	2	3	4	5	6	7
1.	Loyalty dummy[1]	0.67	0.47							
2.	Pledge dummy[2]	0.48	0.50	1.00***						
3.	No Pledge dummy[3]	0.52	0.50	1.00***	-					
4.	Values Salience	0.44	0.50	.07	.04	.10				
5.	Cheating Salience	0.71	0.45	.12	.16	.08	.19+			
6.	Ethical salience	0.40	0.49	.25**	.36**	.20+	.20*	-.03		
7.	Loyal expectations	0.54	0.50	.29**	.27*	.33**	.14	.07	.11	
8.	Cheated	0.31	0.47	-.28**	-.27*	-.31**	-.11	-.19+	-.31**	-.33***

+ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$
Notes: 1. Loyalty dummy coded 1 = Pledge or No Pledge, 0 = Control
2. Pledge dummy coded 1 = Pledge, 0 = Control, Missing = No Pledge
3. No Pledge dummy coded 1 = No Pledge, 0 = Control, Missing = Pledge

Table 6
Descriptive statistics for Study 4

		M	*SD*	1	2	3	4	5	6
1.	Loyalty	6.46	0.75						
2.	StrongLoyalty	0.45	0.50	.65***					
3.	ExpLoyalty	767.00	340.00	.90***	.88***				
4.	Competition dummy[1]	0.54	0.50	.09	.09	.08			
5.	Group Identification	5.66	0.94	.67***	.42***	.61***	.11		
6.	Commitment	5.20	1.28	.57***	.47***	.56***	.15	.62***	
7.	Cheated dummy	0.48	0.50	-.09	-.00	-.08	.12	-.07	.07

* $p < .05$; ** $p < .01$; *** $p < .001$
Notes: 1. Competition dummy coded 1 = high competition, 0 = low competition

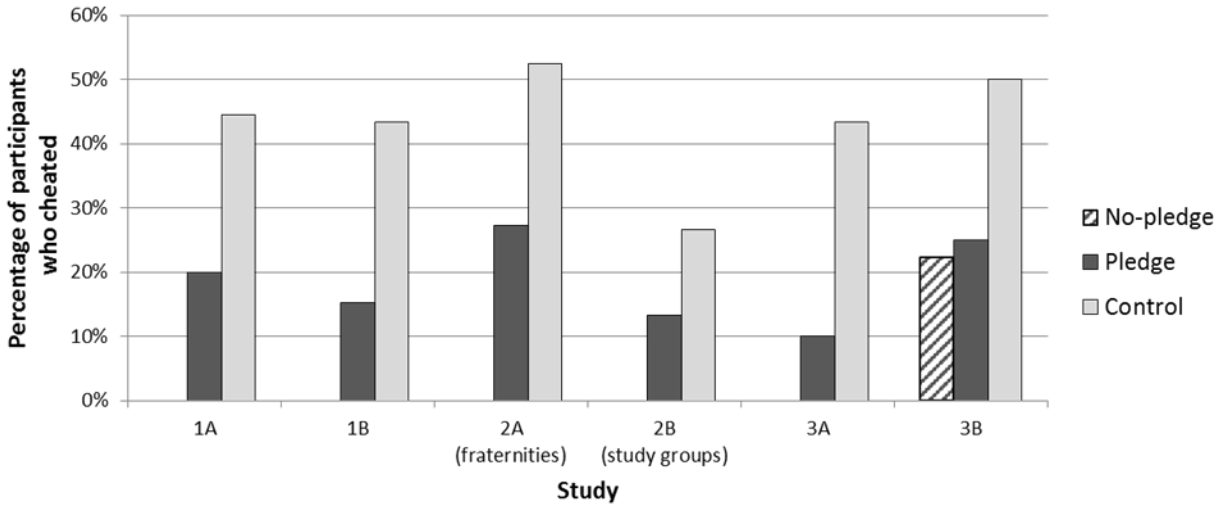
Table 7
Descriptive statistics for Study 5A

		M	*SD*	1	2	3	4	5
1.	Loyalty dummy	0.48	0.50					
2.	Competition dummy	0.51	0.50	.01				
3.	Group Identification	4.54	1.07	.26***	.00			
4.	Liked	5.06	1.50	.17*	-.02	.76***		
5.	Ethical	6.09	0.84	.02	.05	.20**	.18*	
6.	Cheated dummy	0.52	0.50	-.21**	.07	-.03	.03	.00

* $p < .05$; ** $p < .01$; *** $p < .001$

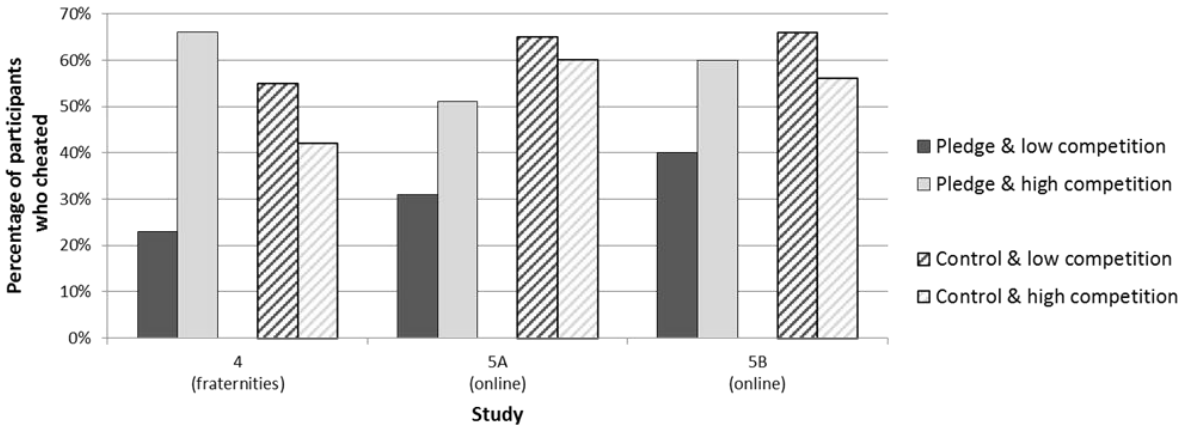
FIGURES

Figure 1: The percentage of participants who cheated on the problem-solving task broken down by condition in each of the first six studies.



Note: There were no loyalty or control conditions in Studies 2A and 2B. For illustrative purposes, in these studies the percentages of participants who cheated is shown separately for those whose self-reported loyalty to their groups was above the median score (represented by the "loyalty" bars in Figure 1) and below the median score (represented by "control" bars in Figure 1).

Figure 2: The percentage of participants who cheated on the problem-solving task broken down by condition in the last three studies.



Note: For illustrative purposes, in Study 4 the percentages of participants who cheated is shown separately for those who self-reported strong loyalty to their houses (represented by the "loyalty" bars in Figure 2) and those who self-reported lower loyalty (represented by "control" bars in Figure 2).

Figure 3: The percentage of participants who cheated on the problem-solving task broken down by condition in Study 6A.

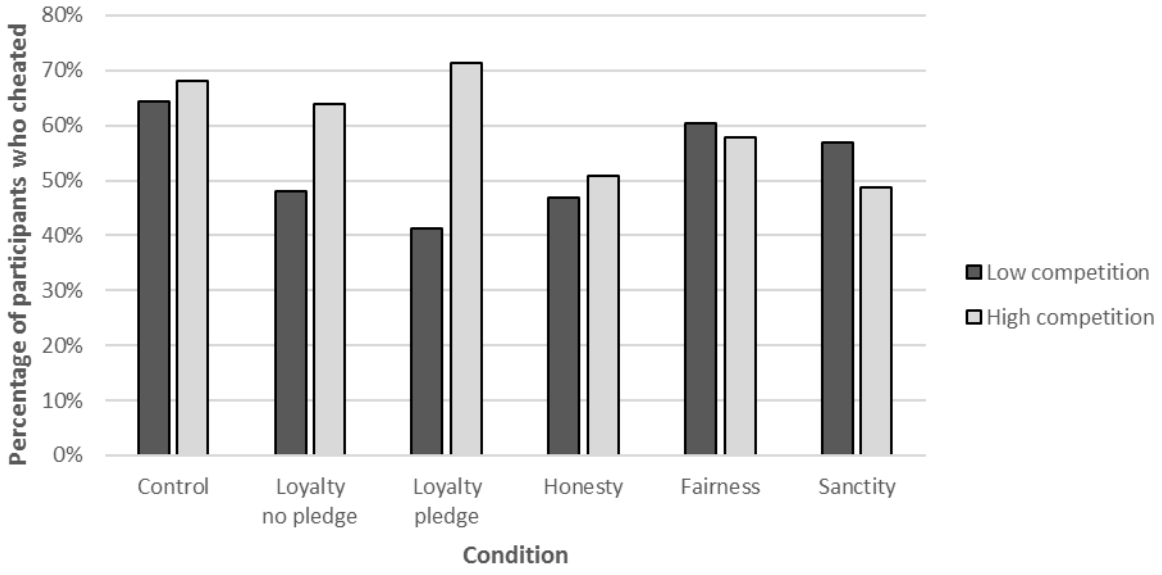


Figure 4: The percentage of participants who cheated on the word-scramble task or lied on the deception task broken down by discussion and competition conditions in Study 6B.

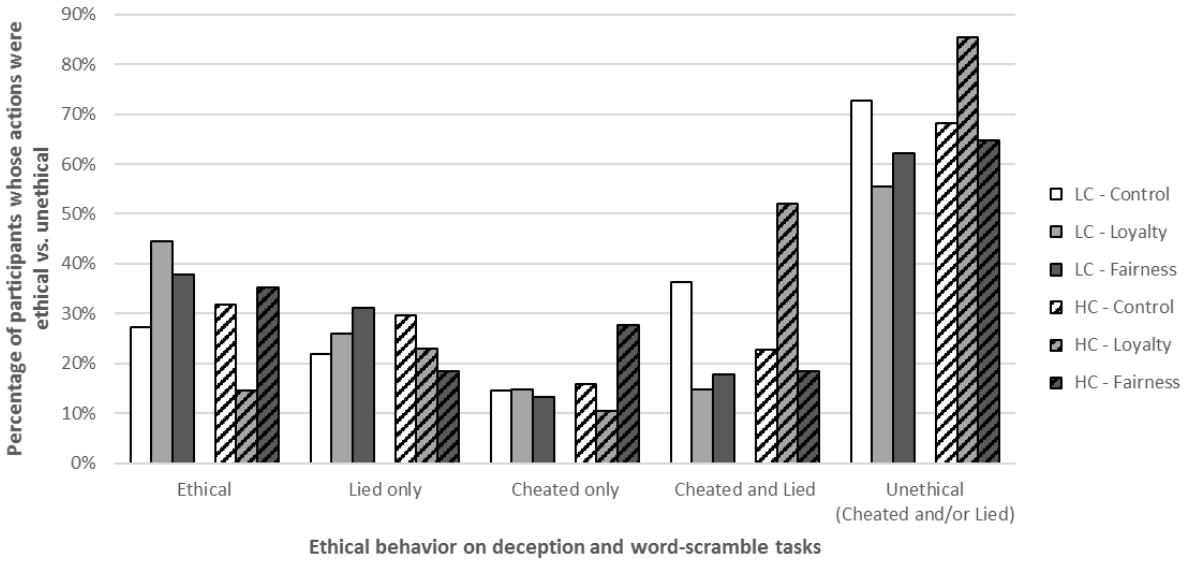
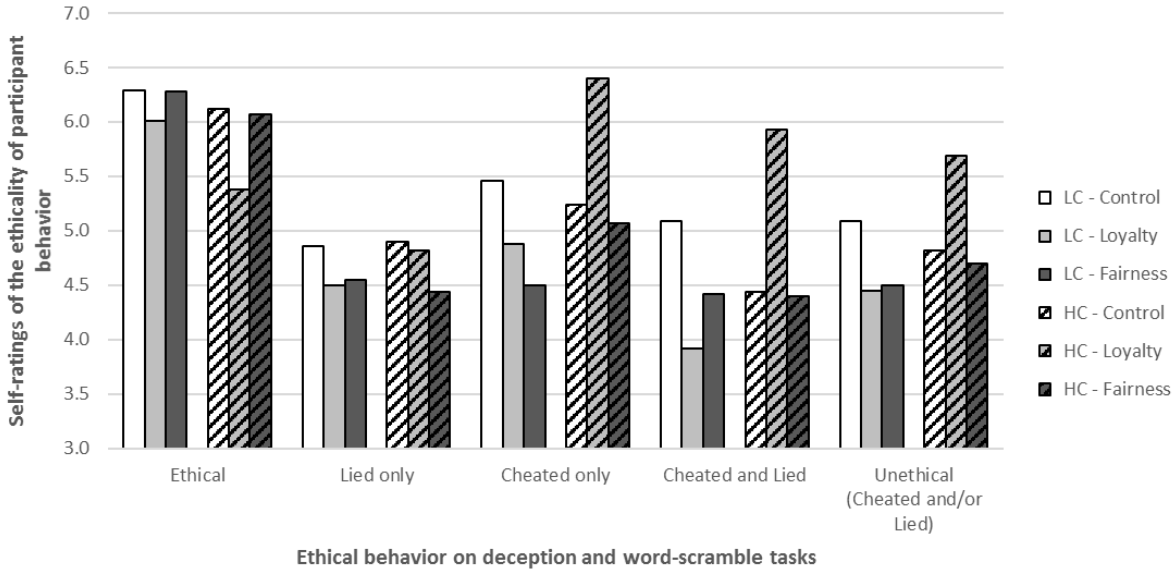


Figure 5: Participant self-ratings of the ethicality of their actions broken down by discussion and competition conditions and by type of ethical behavior in Study 6B.



APPENDICES

Appendix 1 – Loyalty manipulation used in Studies 1A, 1B, 3A and 3B

Group Discussion - Instructions [Loyalty (Control) condition]

The topic your group will discuss is Loyalty (Globalization).

You will have 10 minutes to discuss this topic with your group. To help start your discussions, I suggest you introduce yourselves to each other and then share some past incidents in which each of you experienced loyalty (globalization). What happened, what did it feel like?

You should also consider what the key aspects of loyalty are. To that end, you may wish to consider the following questions:

What is the definition of loyalty (globalization)?

[4 blank lines to complete]

How does loyalty (globalization) manifest itself in real-world settings?

[4 blank lines to complete]

How can loyalty (globalization) be applied to your particular group's situation?

[4 blank lines to complete]

[Loyalty condition only: At the end of your group's discussion, I will ask each of you to **sign a loyalty pledge** to your group. A copy of this pledge is attached.]

Please raise your hand if you have any questions and the experimenter will come to answer them.

Loyalty pledge [used in pledge conditions of studies 1A, 1B and 3A]

Pledge of Loyalty to Our Group

I solemnly swear to support our group and preserve the principles of honor and integrity during these studies. I promise to give unselfishly of my time and energy to strive to protect the interests of the group. I will perform my duties as a member of our group to the best of my ability and understanding. Should I at any time by my actions demonstrate disloyalty to the group, I agree to receive appropriate consequences.

[space for participants to print their names and sign the pledge]

Loyalty pledge (used in pledge conditions of studies 3B, 5A and 5B)

Pledge of Loyalty to Our Group

I pledge my loyalty to my group for the duration of this study.

[space for participants to print their names and sign the pledge]

Appendix 2 – Group task used in Study 2B

Group Activity

Directions: As a group, please read the scenario below and discuss or answer the questions posed. You have 10 minutes to complete this task as a group. The experimenter will collect ONE group answer.

> *Your class is told to form groups to work on a semester long group project. You decide to team up with other people you already know, since you are already friends. Your group is designated weekly assignments to be completed by the group and it is up to the individuals in the group to determine how the work is divided. Your group distributes an equal amount of work to every member each week. One of your members consistently does not complete their work on time, which forces other members of the group to step up and take over some of his responsibility. Upon completion of the project, the teacher informs you that you must rate each of your fellow group members' performances. After class, the particular irresponsible friend comes up to the rest of your group and says he/she really needs a good grade on this project to help his GPA, since he/she will be applying to law school next year.*

Do you give your friend a high score even though he/she was performing badly throughout the course? If the class was curved, how does your decision change?

Please outline your group's response to these questions in the space provided below.

Group (Circle): Blue Red Green Yellow Pink

Response: [16 blank lines for response]

Appendix 3 – word fragment tasks used in Study 3B

Please complete the following word fragments with the first word that comes to mind. Try to work quickly, spending no more than a few seconds on each word.
[Fragments used prior to Numbers Game]

S _ _ P _ _ T
C O M _ _ _ _ E N T
_ E L E _ _ _ I O N
_ _ R I _ G
T _ _ S T
S _ _ _ A G E
C O N _ _ S _ _ N _
H _ _ _ _ T Y
_ E A _ Y
_ E L L _ _
_ E _ _ _ U L
F _ _ R
_ E S P _ _ _
_ _ R I T Y
C R _ S _ _

[Fragments used after Number Game]

S _ E _ T E _
_ _ E A T
T _ _ _ H
F R _ _ D
C _ _ C H
H_ _ E _ _
F _ A _
W R _ _ _
_ A _ S E
_ _ RAL
_ I _ _ _ E
B _ _ S
E _ _ _ C _ _
_ I E D

Appendix 4 – Discussion task instructions used in Study 6A

Loyalty pledge and loyalty no pledge conditions: "Your group's discussion topic is loyalty. Your group should consider the following questions: (1) What is the definition of loyalty? (2) How does loyalty manifest in real world settings? (3) How can loyalty be applied to your particular group's situation?"

Control condition: "Your group's discussion topic is the weather. Your group should consider the following questions: (1) What is the definition of the weather? (2) How does the weather manifest in real world settings? (3) How can the weather be applied to your particular group's situation?"

Honesty condition: "Your group's discussion topic is honesty. Your group should consider the following questions: (1) What is the definition of honesty? (2) How does honesty manifest in real world settings? (3) How can honesty be applied to your particular group's situation?"

Fairness condition: "Your group's discussion topic is fairness (i.e. justice and proportionality). Your group should consider the following questions: (1) What is the definition of fairness (i.e. justice and proportionality)? (2) How does fairness (i.e. justice and proportionality) manifest in real world settings? (3) How can fairness (i.e. justice and proportionality) be applied to your particular group's situation?"

Sanctity condition: "Your group's discussion topic is sanctity (/purity). Your group should consider the following questions: (1) What is the definition of sanctity (/purity)? (2) How does sanctity (/purity) manifest in real world settings? (3) How can sanctity (/purity) be applied to your particular group's situation?"