TOWARD A GENERAL MODEL OF MORAL REGULATION:

HOW FLUCTUATIONS IN GENERAL INTEGRITY INFLUENCE MORAL BEHAVIOR

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy

Rotman School of Management

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Abstract

Morality has been a central topic of philosophy throughout Western civilization. Integrity is almost synonymous with morality. However, recent widespread corporate scandals challenge our belief that individuals, who at one moment are perceived to live by the standards of integrity, will consistently be moral. Moral self-regulation research (Monin & Miller, 2001; Zhong & Liljenquist, 2006; Zhong, Liljenquist, & Cain, 2009) investigates how people’s perception of their own integrity influences morality and proposes, counter-intuitively, that boosting a sense of integrity would reduce moral behavior (moral licensing) and threatening integrity would increase moral behavior (moral cleansing). This dissertation aims at developing this research by broadening the concept of integrity and by understanding the role that moral identity plays (Aquino & Reed, 2002).
I argue that integrity is not only associated with whether one behaves consistently with moral values, but also with whether one behaves consistently with non-moral values, which are also strongly held beliefs but do not involve others’ well-being. Drawing on self-affirmation theory (Steele, 1988), I argue that self-integrity associated with non-moral values (non-moral self-integrity) could influence moral behavior in a similar way as self-integrity associated with moral values (moral self-integrity). I further argue that some individuals are more subject to the influence of self-integrity than others, and moral identity, the relative importance one assigns to morality within one’s self-conception, can identify when concerns with self-integrity will matter in moral domains. Different theories, however, predict two alternative ways that moral identity could moderate licensing and cleansing effects. Evidence from moral identity research suggests that the effects would be weaker among individuals high in moral identity because these individuals are more resilient towards psychological mechanisms that lead to variations in moral behavior. However, self-affirmation theory suggests that the effects would be stronger among individuals high in moral identity because these individuals’ self-integrity are more closely connected to morality and thus they are more likely to manage changes in integrity through moral self-regulation.

Four studies were conducted to test the effects of non-moral self-integrity and moral identity on four forms of moral behaviors: volunteering, donating, cheating, and ethical leadership. The accumulative evidence supports the argument that boosted non-moral self-integrity reduced moral behavior and threatened non-moral self-integrity increases moral behavior. In addition, the data supported the prediction derived from self-affirmation theory, namely that licensing and cleansing effects resulting from non-moral self-integrity maintenance were stronger among individuals high in moral identity.
This dissertation extends moral self-regulation research by revealing a more thorough connection between integrity and moral behavior and by identifying an important boundary condition of this research. It also has implications for managerial research on leader integrity and using integrity tests in personnel selection.
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Chapter 1: Introduction

Morality\textsuperscript{1} has been a central topic of interest since the origin of Western civilization. It is considered essential for personal happiness and societal harmony and prosperity (e.g., Aquinas, 1917; Aristotle, 1934; Plato, 1998). In North America, where the economy is established predominantly on the philosophy of free enterprise and market (Friedman, 1962; Hayek, 1944; Rand, Branden, Greenspan, & Hessen, 1967; Smith, 1776), the ethical behaviors of decision-makers in business organizations could significantly influence the prosperity of the region as well as the well-being of its residents. Therefore, in the past several decades a large amount of research has been conducted to understand morality in business organizations. Although some progress has been made (Trevino, Weaver, & Reynolds, 2006; Gephardt, Harrison, & Trevino, 2007), our current understanding of morality is still quite limited in terms of both quantity and quality (Reynolds & Ceranic, 2009; Trevino et al., 2006). This dissertation aims at contributing to this body of knowledge by investigating the connection between individuals’ sense of integrity and their moral behavior.

In daily life, integrity is frequently used to describe a person’s quality of being honest and ethical in general. In business organizations, integrity is considered a crucial criterion in personnel selection (Sackett & Harris, 1984; Berry, Sackett, & Wiemann, 2007), especially for leadership positions (Craig & Gustafson, 1998; Dineen, Lewicki, & Tomlinson, 2006; Simons, 2002). It is a common belief that individuals with a strong sense of integrity would behave more morally than those with weak integrity. This belief, however, is challenged by the increasing number and scale of business frauds, corruption, and corporate scandals that we have witnessed

\textsuperscript{1} In this dissertation I use morality (moral) and ethics (ethical) synonymously
in the past decade. This epidemic of immoral behaviors has led to disastrous consequences. For example, the financial crisis from the 2008 sub-prime mortgage market led to a total loss of $8.3 trillion in the United States alone (Altman, 2009).

Clearly, the connection between integrity and moral behavior requires closer examination. The research on moral self-regulation (Monin & Miller, 2001; Zhong & Liljenquist, 2006; Zhong et al., 2009) sheds light on this issue. This research has demonstrated that, when individuals’ perceive that they have established the integrity of being an unprejudiced, compassionate, and ethical person, they would slack off in a subsequent moral situation and exhibit less moral behavior than individuals who have not established integrity (Khan & Dhar, 2006; Monin & Miller, 2001; Sachdeva, Iliev, & Medin, 2009; Zhong, Ku, Lount, & Murnighan, 2010). This phenomenon has been described as moral licensing. In addition, threatened self-integrity can actually increase moral behavior: when individuals perceive that their integrity as a moral person is compromised they would compensate for it by exhibiting more moral behavior in a subsequent moral situation than those whose integrity remains intact (Carlsmith & Gross, 1969; Dutton & Lake, 1973; Sachdeva et al., 2009; Tetlock, Kristel, Elson, Green, & Lerner, 2000; Zhong et al., 2010; Zhong & Liljenquist, 2006). This phenomenon has been described as moral cleansing.

Moral self-regulation research thus suggests a dynamic relationship between self-integrity and moral behavior. I argue that this research can be further developed in two ways. First, the conceptualization of integrity needs to be expanded. The existing research describes self-integrity as the extent to which one believes that one has behaved consistently with one’s moral values and principles. I argue that self-integrity should instead be understood as behaving consistently with one’s values, which could be moral or non-moral (Allport, Vernon, & Lindsey, 1961; Rokeach, 1973; Schwartz, 1992). This conceptual expansion makes it possible to make
new theoretical predictions on moral self-regulation. Specifically, self-affirmation theory (Steele, 1988) suggests that self-integrity associated with non-moral values (i.e., non-moral self-integrity) relates to self-integrity associated with moral values (i.e., moral self-integrity) in an exchangeable, mutually compensating, and confluent way. Thus changes in one’s non-moral self-integrity could influence one’s motivation to manage moral self-integrity and consequently influence moral behavior.

Second, moral self-regulation research suggests that moral behavior varies with one’s moral self-integrity (Sachdeva et al., 2009; Zhong et al., 2010). This finding needs to be integrated with traditional research that shows individuals with certain characteristics would consistently exhibit moral behavior (Zhong et al., 2009). Naturally some individuals’ moral behavior is influenced by their self-integrity to a lesser extent than others. Consistent with Zhong and colleagues’ (2009) analysis, this dissertation aims at integrating the concept of moral identity (i.e., the relative importance one assigns to being a moral person within one’s self-conception; Aquino & Reed, 2002) to further improve our understanding of moral self-regulation. Theories, however, make two competing predictions: evidence from moral identity research suggests that licensing and cleansing effects might weaker among individuals high in moral identity, because these individuals are more likely to overcome psychological mechanisms that lead to variations in moral behavior (Aquino, Reed, Thau, & Freeman, 2007; Reed & Aquino, 2003; Skarlicki, van Jaarsveld, & Walker, 2008), whereas self-affirmation theory suggests the effects are stronger among individuals high in moral identity, because these individuals’ self-integrity are more closely connected to morality (Bergman, 2004; Crocker, Karpinski, Quinn, & Chase, 2003; Crocker, Sommers, & Luhtanen, 2002) and thus they are more likely to manage changes in
integrity through moral self-regulation (Crocker & Park, 2004; Crocker & Wolfe, 2001). This dissertation will empirically test these two competing predictions.

Taken together, this dissertation aims at contributing to the research on business ethics by investigating the relationship between self-integrity and moral behavior. Specifically, I intend to further develop moral self-regulation research by expanding the conceptualization of self-integrity and by integrating the concept of moral identity. These new developments will help us better understand and predict moral behavior in business organizations. In the next chapter, I will introduce key concepts in the current understanding of moral behavior.
Chapter 2: What Is Moral Behavior?

First, to understand how self-integrity influences moral behavior, it is important to clarify the definition of morality and moral behavior. Unfortunately, although a large amount of research has been conducted to understand moral behavior in organizations in the last few decades, this literature is still limited by conceptual ambiguity, namely, the lack of a consensual definition of moral behavior (Tenbrunsel & Smith-Crowe, 2008; Trevino & Nelson, 2004). However, the literature provides a number of definitions of moral behavior and related concepts that represent our current understanding of morality. I will review these concepts below.

To understand moral behavior, it is first important to distinguish a moral situation from other social situations. A moral situation is a social situation (i.e., involves multiple individuals) where one person’s behavior could/might influence the well-being of another person, other persons, or others in general, either positively or negatively. Similarly, the components of a moral situation (e.g., issue, individuals, emotions, cognition, decisions, etc.) become morally relevant when they are connected to the well-being of others. For example, Jones (1991) suggested that an issue becomes morally related when “a person’s actions, when freely performed, may harm or benefit others” (p. 367). Haidt (2003) defined moral emotions as affective feelings that are “linked to the interests or welfare either of society as a whole or at least of persons other than the judge or agent” (p.276). In sum, one’s behavior becomes morally relevant when it could/might harm or improve the well-being of others.

In a moral situation, one’s behavior is considered ethical if it is consistent with the protocols and behavioral codes endorsed by the societal context in which the moral situation is embedded. For example, in Rest’s (1986) well-known ethical decision model (Ferrell, Gresham, & Fraedrich, 1989; Jones, 1991; Trevino, 1986), moral behavior is defined as behaving
according to “a particular type of social value, that having to do with how humans cooperate and coordinate their activities in the service of furthering human welfare, and how they adjudicate conflicts among individual interests” (p.3). Jones (1991) defined a moral decision as “a decision that is both legal and morally acceptable to the larger community” (p. 367). Trevino et al. (2006) further defined moral behavior (which they labeled “behavioral ethics”) as “individual behavior that is subject to or judged according to generally accepted moral norms of behaviors” (p. 925). Accordingly, a behavior in a moral situation that violates societal norms of behavior is considered unethical. For example, Trevino et al. (2006) categorized behaviors that failed to reach the minimal moral standards of a society (e.g., hurting others, stealing, etc.) as immoral behavior. Specifically in the business context, the research on immoral behavior “deals with questions about whether specific business practices are acceptable” (Ferrell, Fraedrich, & Ferrell, 2008, p. 5).

The above perspectives on moral situations and moral behavior should be distinguished from moral dilemmas and decisions made in these dilemmas. Moral dilemmas are designed to investigate complicated reasoning processes in situations where two or more moral values are in conflict with each other (Monin, Pizarro, & Beer, 2007). For example, a classic moral dilemma (Colby & Kohlberg, 1987) describes a difficult decision that a marine captain faces: the company was chased by an overwhelming number of enemies and crossed a bridge, with the enemies still on the other side. To save the company, someone had to go back to blow up the bridge. Should the captain send a marine (who would certainly be killed by the enemies) or go himself (which would leave the company leaderless and put all the marines in danger)? This scenario presents the readers with a conflict between two moral values: saving the life of a subordinate versus being a responsible leader. By examining individuals’ cognitive processes in forming a response
to this moral dilemma, researchers can understand the complicated moral reasoning processes involved in complicated moral situations. The purpose of this dissertation is not to examine individuals’ cognitive processes in complicated moral situations. Rather, I will focus on moral situations where one’s behavior can be relatively easily judged as moral or immoral, such as volunteering, donation, whistleblowing, cheating, stealing, hurting, etc. (Trevino et al., 2006).

In these types of moral situations, people are fully aware that their behaviors are morally relevant, and are aware of which behaviors are moral and which are immoral. In Rest’s (1986) four-step ethical decision model, it means that, in these situations, individuals can easily complete the first two steps of moral decision-making: a) being morally aware and b) making a moral judgment. Rest’s model, however, also suggests that for moral judgment to translate into actual moral behavior individuals also need to have moral intention, that is, the motivation to behaviorally exhibit what they believe is the right behavior. People don’t always have a strong motivation to do what they know is right and to refrain from doing what they know is wrong. For example, although most of us know that tax evasion is wrong, in 2008 the total amount of evaded tax had amounted to more than $450 billion in America (Cebula & Feige, 2011). This lack of self-regulation in moral situations has been referred to as a “thought-action problem” (Bergman, 2004: p.30). Naturally, many factors could influence one’s motivation to be moral, one of which is self-integrity (Monin & Miller, 2001; Zhong et al., 2009).
Chapter 3: Moral Behavior and Integrity

The discrepancy between moral judgment and moral behavior has prompted researchers to investigate the factors that prevent individuals from exhibiting clearly good behaviors (e.g., helping, donating) and the factors that lead individuals to engage in clearly bad behaviors (e.g., deceiving, killing). For example, research on moral disengagement has demonstrated multiple cognitive mechanisms (e.g., euphemistic labeling, displacement of responsibility, and misconstruing the consequences) through which individuals can disassociate themselves from the damage of their immoral behaviors (e.g., killing, torturing) and thus reduce the negative feelings (e.g., guilt, shame, regret) associated with these behaviors. Therefore, individuals with a stronger tendency to adopt these mechanisms during decision-making are more likely to engage in shocking moral transgressions. Social factors also play a role in shaping moral behavior, for example, individuals are more likely to behave consistently with moral principles when a sanctioning system exists that punishes transgressors (McCusker & Carnevale, 1995; Yamagishi, 1986).

Among these perspectives, one stream of research of particular relevance to this dissertation focuses on how moral behavior is influenced by individuals’ self-integrity (Zhong et al., 2009), a perception of the extent to which individuals have established the integrity of being unprejudiced, compassionate, and in general ethical (Khan & Dhar, 2006; Monin & Miller, 2001; Sachdeva et al., 2009). Self-integrity can be considered the currency in a “moral account” that will increase after one behaves morally and decrease after one behaves immorally. For example, after donating to a charity program one is more likely to consider oneself as a compassionate and helpful person (Khan & Dhar, 2006), and after making a racist comment one is more likely to consider oneself as an unfair and prejudiced person (Tetlock et al., 2000).
The level of self-integrity, conversely, functions as a gauge that indicates whether moral behavior should be exhibited in an immediate moral situation. Specifically, individuals usually have a sense of a threshold where they understand the point at which integrity is necessary, and integrity below this threshold is unacceptable. Individuals are motivated to maintain their self-integrity above this threshold because few people want to perceive themselves as morally inadequate. In addition, individuals have a sense of a threshold where they understand the point at which integrity is sufficient, such that integrity above this threshold would be considered excessive (Sachdeva et al., 2009). Individuals are not motivated to maintain their self-integrity above this threshold, because doing so requires engaging in extraordinary moral behaviors that might exhaust their resources such as time, money, and effort (Eisenberg & Shell, 1986).

Thus, when facing a moral decision, individuals refer to their self-integrity at that moment to decide what to do. If self-integrity is threatened and lower than the necessary threshold, one would choose to exhibit more moral behaviors and less immoral behaviors to increase their self-integrity. This phenomenon has been documented as moral cleansing (Carlsmith & Gross, 1969; Dutton & Lake, 1973; Sachdeva et al., 2009; Tetlock et al., 2000; Zhong et al., 2010; Zhong & Liljenquist, 2006). For example, Carlsmith and Gross (1969) demonstrated that participants who believed that they have administered painful electronic shocks to a confederate were more cooperative with the experimenter’s request in a subsequent task than participants who did not administer shocks to the confederate. Tetlock et al. (2000) induced participants to believe that they had demonstrated biases against African Americans in a simulated insurance estimation task. Half the participants were randomly selected to be given an opportunity to correct their estimation and half did not receive such an opportunity. Participants then reported the extent to which they support African artists in the city and racial equality
activities on campus. Participants who did not correct their estimation, compared to those who did, expressed more support for African Americans, because they wanted to restore their self-integrity that had been threatened by the perceived bias in the estimation task. Zhong and Liljenquist (2006) demonstrated that the tendency for moral cleansing could manifest as physical cleansing behavior. In one of their studies they asked participants to recall an unethical deed or an ethical deed that they had engaged in in the past, and offered them a free gift: an antiseptic wipe or a pencil. They found that participants who recalled an unethical deed were more likely to choose the antiseptic wipe than those who recalled an ethical deed, suggesting that recalling unethical deeds threatened their self-integrity and motivated them to engage in moral cleansing behavior, which manifested as physical cleansing behavior. In addition, although not considered part of the moral cleansing literature, some empirical evidence points to a similar moral compensation mechanism. For example, Steele (1975) led housewives to believe that they have been driving carelessly in the neighborhood of their community through false feedback, and found this manipulation increased the housewives’ volunteering behavior to community service. Stone, Wiegand, Cooper, and Aronson (1997) asked undergraduate students to reflect on having had unprotected sex in the past, and found this manipulation increased the students’ donation to a charity program for homeless people.

On the other hand, if self-integrity is boosted and higher than the sufficient level at the time when one faces a moral situation, one would choose to engage in less moral behaviors and more immoral behaviors. This phenomenon is referred to as moral licensing (Khan & Dhar, 2006; Monin & Miller, 2001; Sachdeva et al., 2009; Zhong et al., 2010). For example, Monin and Miller (2001) found that male participants who exhibited anti-sexism behavior by disagreeing with strong sexist statements were more likely to exhibit sexism in a subsequent hiring scenario
compared to male participants who did not exhibit anti-sexism behavior. Khan and Dhar (2006) showed a similar effect in the context of consumer decisions. Participants who contemplated volunteering for and donating to a community service, compared to participants who did not contemplate, expressed greater intentions of purchasing self-indulgent products (e.g., luxury and unnecessary sunglasses), which could be interpreted as a lack of moral self-regulation in North America. Khan and Dhar (2006) argued and demonstrated that the mechanism underneath this licensing effect was that recalling past moral behaviors increased individuals’ self-assessment associated with moral traits such as being compassionate, warm, and helpful. Similarly, Uhlmann and Cohen (2007) boosted participants’ self-integrity by letting them reflect on how they have been objective and fair and asked them to complete a hypothetical hiring task. Consistent with the findings of Monin and Miller (2001) and Khan and Dhar (2006), they found that individuals with boosted self-integrity demonstrated more bias against female candidates in the hiring task than those whose self-integrity remained unchanged. In sum, moral licensing research showed that boosting individuals’ self-integrity would reduce their moral behavior.

More recent research has demonstrated both moral licensing and cleansing effects using the same paradigm, in order to demonstrate a coherent moral self-regulation process (Sachdeva et al., 2009; Zhong et al., 2010). Zhong et al. (2010) showed that MBA students who imagined behaving ethically in a vignette made less ethical decisions in subsequent vignettes, whereas those who imagined behaving unethically in a vignette made more ethical decisions in subsequent vignettes. In contrast to earlier studies that manipulated self-integrity indirectly by drawing individuals’ attention to their previous moral behavior, Sachdeva et al., (2009) manipulated self-integrity directly by asking participants to write about themselves using moral words (e.g., “fair”, “caring”), immoral words (e.g., “greedy”, “mean”), or control words (e.g.,
“book”, “house”). They then asked the participants to decide how much to donate to a charity and how much industrial waste to release into the environment in a hypothetical scenario.

Consistent with the accumulated evidence of moral self-regulation, it was shown that writing about one’s self using moral words led to a lower donation amount and more environmental pollution than the control group, whereas writing about one’s self using immoral words led to a higher donation amount and less environmental pollution than the control group.

Thus, moral licensing and moral cleansing represent two aspects of the same moral self-regulatory mechanism. Zhong et al., (2009) has described this mechanism using an analogy of a rubber band: boosted self-integrity relaxes the rubber band and thus exerts less restraint on one’s subsequent moral behavior (moral licensing), whereas threatened self-integrity stretches the rubber band and leads to stronger motivation to regulate one’s subsequent moral behavior (moral cleansing). The moral self-regulation research indicated the direct connection between individuals’ self-integrity and moral behavior and can help explain and predict individuals’ level of moral motivation in making ethical decisions. I argue that one way to further develop this line of research is to expand the conceptualization of self-integrity.
Chapter 4: Understanding Self-integrity

I argue that, to reach a deeper understanding of the moral self-regulatory process, the conceptualization of self-integrity needs to be broadened. The existing research generally understands self-integrity as one’s belief that one has behaved consistently with one’s moral values such as being fair, being compassionate, and being generally ethical (Khan & Dhar, 2006; Monin & Miller, 2001; Sachdeva et al., 2010). I argue that self-integrity should be understood as the belief that one has behaved consistently with one’s values, which include both moral values and non-moral values (i.e., values that do not involve others’ well-being; Allport et al., 1961; Schwartz, 1992). This conceptual expansion points to a theoretical prediction that the existing moral self-regulation research does not predict: self-integrity associated with non-moral values (i.e., non-moral self-integrity) could also influence moral behavior in ways similar to self-integrity associated with moral values (moral self-integrity). Specifically, boosted non-moral self-integrity reduces moral behavior and threatened non-moral self-integrity increases moral behavior. Self-affirmation theory (Aronson, Cohen, & Nail, 1999; Sherman & Cohen, 2006; Steele, 1988) provides theoretical support for this prediction.

Expanding the concept of self-integrity

Integrity is derived from the Latin term integer, meaning wholeness or completeness. When used to describe someone’s character, integrity means that the person’s various parts of his or her life converge into a harmonious intact whole (Frankfurt, 1987), especially between one’s behaviors and one’s moral values and principles (“Integrity”, 2009). Consistent with this common usage, some philosophers also argue that a prerequisite of integrity is a firm grasp of moral principles and the moral soundness of one’s beliefs (Ashford, 2000), and the purpose of a
person with integrity should be to pursue a moral life (Halfon, 1989). Managerial scholars also define integrity as behaving morally (Batson, Thompson, Seuferling, Whitney, & Strongman, 1999; Becker, 1998; Mayer, Davis, & Schoorman, 1995) or refraining from immoral behaviors (Craig & Gustafson, 1998). According to these perspectives, self-integrity should be one’s belief that one has been behaving consistently with moral values. This is indeed the understanding of self-integrity in the current moral self-regulation research. For example, Monin and Miller (2001) described the concept of moral credential as the extent to which one believes one has exhibited behaviors consistent with the value of being fair and unprejudiced. Khan and Dhar (2006) operationalized moral self-concept as how compassionate, warm, and helpful individuals believed they were. Sachdeva et al., (2009) described moral self-worth to be a reflection of the extent to which one possesses moral characteristics such as being honest, fair, and caring.

I argue that a broader conceptualization of self-integrity should be the perception of the extent to which one behaves consistent with one’s important values, regardless of whether the values are moral or non-moral. Psychological research on values has revealed that, although some values are closely related to morality, others are independent from morality. Values are defined as “abstract ideals that are important guiding principles in one’s life” (Maio, 2010, p. 4). Although individuals differ in terms of the values they hold, social scientists have identified a set of values that are shared by most individuals, that is, a majority of individuals would find these values at least somewhat important (Allport, Vernon, & Lindsey, 1961; Rokeach, 1973; Schwartz, 1992). Naturally this set of values includes most of the moral values. For example, Allport et al. (1961) categorized the most common values into six groups, one of which includes values that address the basic concern for the well-being of other people, such as helpfulness and kindness. Schwartz (1992) proposed two dimensions to organize values, one of which represents
the extent to which one transcends self-interests to consider the welfare of others. In Schwartz’s model, values that score high on this dimension include moral values such as forgiveness, helpfulness, and equality.

This set of values, however, also includes those that are independent from morality. Allport et al. (1961) identified five basic categories of such non-moral values such as aesthetic, theoretical, and political. For example, aesthetic values involve an appreciation of artistic beauty and harmony, and theoretical values involve a desire to discover truth and systematize one’s knowledge. Theoretically, these values are irrelevant to morality because they do not indicate how one should behave when others’ interests are involved. Moreover, some of these values can be mapped on a dimension that is orthogonal to morality (Schwartz, 1992), which represents the extent to which one promotes openness, self-direction, and stimulation. Indeed, it is difficult for us to reach a moral judgment about some values. Is it good or evil to be aesthetically sophisticated? Most people could not give a definitive answer to this question. In sum, values can be categorized into moral values and non-moral values.

Individuals are motivated to spend time and effort to uphold non-moral values that they consider important. For example, those who hold strong theoretical values will spend more time reading scientific literature, those who hold strong aesthetic values will spend more resources attending art exhibitions and galleries, and those who hold strong hedonistic values will spend more time engaging in leisure activities (Allport et al., 1961; Schwartz, 1992). Naturally, due to external and internal constraints, people sometimes fail to uphold these values (e.g., a graduate student who can not focus on research because of health issues). The extent to which one can successfully behave consistently with non-moral values would influence one’s sense of integrity, that one is good and worthwhile (Crocker, Karpinski et al., 2003; Crocker, Luhtanen, Cooper, &
Bouvrette, 2003; Crocker et al., 2002; Crocker & Wolfe, 2001). For example, Crocker et al. (2002) demonstrated how students’ self-integrity fluctuated with their academic performance. The authors recruited undergraduate students who were applying to graduate programs and recorded their self-integrity during the application process. The authors discovered that, among students who considered it important to be academically competent, self-integrity increased after they successfully upheld this value (e.g., received a positive response from a graduate office) and decreased after they failed to uphold this value (e.g., received a rejection letter from a graduate office). However, among students who considered it unimportant to be academically competent, self-integrity was not influenced by whether they successfully upheld this value.

My view that self-integrity could also be associated with non-moral values is consistent with some perspectives on integrity. For example, the Merriam-Webster (2009) dictionary defines integrity as “firm adherence to a code of especially moral or artistic values”. Philosophers have argued that, in addition to moral integrity, individuals experience other types of integrity, such as intellectual integrity (Halfon, 1989) and artistic integrity (Calhoun, 1995; Williams, 1981). In addition, this conceptual expansion of self-integrity is also consistent with the recent conceptualization of integrity in the management literature, which defines it broadly as the consistency between one’s behavior and one’s words and beliefs, regardless of the content of the value (Paine, 2005; Palanski & Yammarino, 2007; Simons, 1999, 2002; Simons, Friedman, Liu, & Parks, 2007; Worden, 2003).

Understanding that self-integrity could also be associated with non-moral values points to a new prediction that existing moral self-regulation research does not predict: non-moral self-integrity (i.e., the integrity associated with non-moral values) could also influence moral behavior in ways similar to moral self-integrity (i.e., the integrity associated with moral values).
Self-affirmation theory (Aronson et al., 1999; Sherman & Cohen, 2006; Steele, 1988) provides the theoretical foundation for this prediction.

**Non-moral self-integrity and moral behavior**

Self-affirmation theory makes explicit a connection between individuals’ behaviors associated with *unrelated* values. The key argument of this theory is that, beyond the goals of maintaining self-integrity associated with multiple specific values (i.e., to believe that one successfully demonstrates behaviors consistent with specific values), individuals have an overarching goal to maintain a global, unitary, and overall sense of integrity, which was described by Steele (1988) as “a phenomenal experience of the self … as adaptively and morally adequate, that is, competent, good, coherent, unitary, stable, capable of free choice, capable of controlling important outcomes … (p. 262)”.

Individuals’ pursuit of self-integrity associated with *specific* values can be considered a means to this higher level goal. For example, although an assistant professor should be motivated to maintain self-integrity associated with specific values such as impactful research, effective teaching, and administrative service, self-affirmation theory suggests that her pursuit of self-integrity associated with each of these values is not an end in itself, but rather a means to reach the overarching goal of pursuing global integrity, that is, to perceive herself as an adequate and competent human being.

As different means to an overarching goal, self-integrity associated with one specific value should be substitutable by self-integrity associated with other specific values (Heider, 1958). Heider’s work on the equifinality of goals suggest that individuals can usually pursue their goals through multiple independent routes; when one route is blocked, individuals will rely more on other routes, and when one route is strengthened, individuals will rely less on other
routes (Carver & Scheier, 1981). For example, if one’s goal is to become wealthy, there are multiple routes to reach this goal: get a well-paid job, marry someone wealthy, win a lottery, or commit a crime (e.g., robbing a bank). When a particular route is blocked (e.g., one can not get a well-paid job because of economic recession), one will rely more on other routes (e.g., purchase lottery tickets more frequently); when a route is strengthened (e.g., one is engaged to be married to someone wealthy), one will rely less on other routes (e.g., robbing a bank). Similarly, as a means to reach the goal of global self-integrity, self-integrity associated with specific values also relate to each other in an exchangeable, mutually compensating, and confluent way (Tesser, 2000; Tesser & Cornell, 1991; Tesser, Crepaz, Collins, Cornell, & Beach, 2000). Specifically, boosting one’s self-integrity associated with a specific value contributes more to the goal of pursuing global integrity and thus reduces one’s motivation to reach this goal through other means. That is, one would be less motivated to pursue self-integrity associated with other unrelated specific values. On the other hand, threatening one’s self-integrity associated with a specific value reduces the contribution to the goal of pursuing global self-integrity and thus increases one’s motivation to reach this goal through other means. That is, one would be more motivated to pursue self-integrity associated with other unrelated specific values.

The confluence among self-integrity associated with specific values (Tesser, 2001) has been empirically supported. When one’s integrity associated with a specific value is boosted, one is less motivated to maintain integrity in other unrelated values (e.g., Creswell, Welch, Taylor, Sherman, Gruenewald, & Mann, 2005; Sherman, Nelson, & Steele, 2000; Steele & Liu, 1983). For example, Steele and Liu (1983) demonstrated that affirming individuals’ economic and political values (Allport et al., 1961) would reduce their cognitive dissonance, which is essentially individuals’ effort to maintain integrity associated with the value of “being consistent”
(Steele, 1988). Sherman et al., (2000) boosted individuals’ integrity associated with a personally important value by asking them to write an essay about it, and found that this writing task reduced individuals’ defensiveness towards a threatening message about their sexual behavior, which represented their motivation to pursue integrity associated with the value of “safe sex.” Creswell et al. (2005) demonstrated that boosting individuals’ integrity associated with a personally important value reduced their physical stress (i.e., cortisol level) during a task where their performance is evaluated, which is a good indicator of individuals’ motivation to pursue integrity associated with the value of “being competent”.

In addition, when one’s integrity associated with a specific value is threatened, one is more motivated to pursue integrity associated with other unrelated values (e.g., Schwinghammer, Stapel, & Blanton, 2006; Tesser et al., 2000). For example, Schwinghammer et al. (2006) threatened female participants’ integrity associated with their personal values through an essay task, and showed that this task increased participants’ rating of their own physical attractiveness and decreased their rating of a physically attractive female target, which represents clearly the participants’ effort to maintain their integrity associated with the value of “being physically attractive”. In a series of studies, Tesser et al. (2000) threatened participants’ integrity associated with personally important values through social comparison and showed that this manipulation increased participants’ motivation to write more positively about a personally important value in an essay, which represents their motivation to pursue integrity associated with this value. In the same article, Tesser et al. also threatened participants’ integrity associated with the value of “being consistent” by manipulating cognitive dissonance (Festinger, 1957), and found that this manipulation increased individuals’ tendency to distance themselves from another person who
outperformed them in a personally important task, which represents their motivation to protect integrity associated with the value of “being competent”.

According to self-affirmation theory, moral self-integrity and non-moral self-integrity should also relate to each other in a confluent and mutually compensating manner. Specifically, boosting one’s non-moral self-integrity should provide extra sources of global self-integrity and thus reduce the motivation to pursue moral self-integrity; while threatening one’s non-moral self-integrity should lead to a loss in global self-integrity and thus increase the motivation to pursue moral self-integrity. Since the primary means to maintain moral self-integrity is through moral behavior (Zhong et al., 2009), it can further be predicted that boosting non-moral self-integrity reduces moral behavior and threatening non-moral self-integrity increases moral behavior. This prediction is consistent with some research findings. For example, Fein and Spencer (1997) threatened participants’ self-integrity associated with the value of “being intelligent” through false feedback in an intelligence test, and found that this manipulation reduced the participants’ prejudice towards a homosexual person.

In sum, I propose that self-integrity can also be associated with non-moral values, and self-affirmation theory predicts that non-moral self-integrity would influence moral behavior in similar ways as moral self-identity would. In addition to this conceptual expansion, moral self-regulation research can also be developed by integrating the fluctuating dynamics between self-integrity and moral behavior (Zhong et al., 2010) and the findings that certain individual differences consistently predict high moral behavior (Zhong et al., 2009). For example, research has suggested that individuals tend to exhibit more moral behavior when they are low in moral disengagement (Bandura, 1999; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996), low in cynicism (Detert et al., 2002), high in dispositional sympathy (Batson et al., 1989), and have an
internal locus of control (Trevino, 1986). Clearly some individuals’ moral behavior is influenced by self-integrity to a lesser extent than others. Identifying individual differences as boundary conditions of existing research will facilitate better understanding of moral self-regulatory processes. To investigate which individuals are more influenced by a concern of integrity when making ethical decisions, a promising direction is to consider the relative importance individuals assign to morality among the various aspects of their identity (Zhong et al., 2009). This individual difference has been captured by the concept of moral identity (Aquino & Reed, 2002).
Chapter 5: Integrating Moral Identity

Consistent with Zhong and colleagues’ (2009) analysis, this dissertation aims at integrating the concept of moral identity in existing research by considering how moral identity moderates the effect of self-integrity on moral behavior. Moral identity refers to the relative importance that individuals assign to being a moral person within their overall self-identity (Aquino & Reed, 2002). Aquino and Reed (2002) empirically demonstrated that, similar to the way individuals organize their social identities (e.g., gender, ethnicity, political affiliation), individuals also organize their self-conception as a moral person around a set of most common moral traits (e.g., honest, fair, helpful, etc.). Although this self-conception as a moral person can be invoked in most individuals (i.e., most individuals can imagine what a moral person would think and act), individuals differ as to the relative importance of this moral self-conception in their overall self-conception. That is, some individuals perceive being a moral person to be central to their overall self-concept (i.e., high in moral identity), whereas others perceive being a moral person to be peripheral to their overall self-concept (i.e., low in moral identity). This relative difference in the importance of moral identity has been shown by Aquino and Reed (2002) to be a stable individual difference and can be measured with a reliable scale that the authors developed.

The concept of moral identity has been used to explain moral behavior. The major thinking behind this research is that, when being a moral person has been internalized and integrated into one’s identity and thus occupies a central position in an individual’s self-concept, one is more likely to behave morally (Blasi, 2005; Bergman, 2004; Demon, 1984; Hardy, 2006; Hardy & Carlo, 2005), otherwise one will suffer cognitive dissonance and emotional discomfort (Blasi, 2004; Festinger, 1957) and a strong threat to one’s identity (Bergman, 2004). Indeed,
accumulated empirical evidence supports this reasoning: compared to individuals low in moral identity, those high in moral identity donate more to charity (Aquino & Reed, 2002), contribute more to community service (Pratt, Hunsberger, Pancer, & Alisat, 2003), exhibit more prosocial behaviors (Arnold, 1993) and less antisocial behaviors (Barriga, Morrison, Liau, & Gibbs, 2001), exhibit less violent behaviors when playing football (e.g., elbowing an opponent, Sage, Kavussanu, & Duda, 2006), and lie less in negotiations (Aquino, Freeman, Reed, Lim, & Felps, 2009).

How does moral identity moderate the effect of self-integrity on moral behavior? Theory makes two alternative predictions. On the one hand, the fluctuating dynamics between self-integrity and moral behavior might be less likely to occur among individuals high in moral identity (Zhong et al., 2009), because they monitor their moral behavior more vigilantly and are more resilient towards influences (Weaver, 2006; Blasi, 2005). Indeed, anecdotal evidence has shown that moral exemplars (e.g., Mother Teresa, Ghandi), who presumably are very high in moral identity, are so strongly motivated to be moral that they exhibit moral behaviors regardless of aversive internal (e.g., disease) and external (e.g., social pressure) factors (Colby & Damon, 1992). In addition, empirical evidence also suggests that individuals high in moral identity are less influenced by the psychological mechanisms that lead to changes in moral behavior. For example, Aquino et al. (2007) found that, although moral disengagement led individuals to support highly punitive response to the perpetrators of the September 11th attacks, this effect was eliminated for participants high in moral identity. Skarlicki, et al. (2008) showed that, although organizational injustice leads to employee sabotage behavior, this effect is weaker for employees who have internalized moral principles to a greater extent. Reed and Aquino (2003) showed that, although intergroup conflict in general makes individuals hostile to out-group members, this
effect is weaker among individuals high in moral identity. As I argued in the last chapter, changes in one’s non-moral self-integrity represent a psychological mechanism that influences moral behavior; and the theoretical and empirical evidence above suggests that this influence is weaker among individuals high in moral identity.

On the other hand, self-affirmation theory suggests that licensing and cleansing effects might be more likely to occur among individuals high in moral identity. A central argument of moral self-regulation research is that individuals are motivated to maintain their moral self-integrity (Sachdeva et al., 2009; Zhong et al., 2009; Zhong et al., 2010), which rises and falls around its typical level in response to one’s moral behavior and which in turn influences individuals’ subsequent moral behaviors. This argument is more valid for individuals high in moral identity, because they are more likely to base self-integrity on morality (Crocker & Wolfe, 2001; Crocker, Luhtanen et al., 2003) and are motivated to maintain this perception through moral self-regulation (Blasi, 2005; Bergman, 2004; Demon, 1984; Hardy, 2006). Self-affirmation theory (Steele, 1988) further suggests that these individuals (i.e., high in moral identity) manage moral self-integrity as a means to an overarching goal of maintaining global self-integrity. Therefore, fluctuations of global self-integrity would manifest as changes in these individuals’ moral behavior. On the other hand, individuals low in moral identity don’t see moral values as personally important (Aquino & Reed, 2002), and are not motivated to manage global self-integrity through moral behavior. Individuals low in moral identity are still motivated to maintain their global self-integrity, and affirming or threatening their important values still leads to fluctuations of global self-integrity. However, because their global self-integrity is not related to morality, these fluctuations would not manifest as changes in their motivation to maintain
moral self-integrity, that Consequently Thus the fluctuations in global self-integrity would not manifest as changes in these individuals’ moral behavior.

Specifically, when the self-integrity associated with a non-moral value is threatened, individuals would seek to affirm themselves with other important values. Under such circumstances, individuals high in moral identity are more likely to increase their moral behavior to affirm moral values, which are important to them; whereas individuals low in moral identity tend to affirm themselves through important values other than moral values. On the other hand, when the self-integrity associated with a non-moral value is affirmed, individuals’ motivation to maintain self-integrity associated with other values would be reduced to save resources such as time and effort. Under such circumstances, individuals high in moral identity would reduce their motivation to maintain moral self-integrity, in which they generally spend much resources such as time and money (Aquino & Reed, 2002), resulting in lower levels of moral behavior. In contrast, individuals low in moral identity would reduce the resources they spend in domains other than the moral domain, resulting in the same level of moral behavior. In other words, these individuals already spend little resources to maintain a moral self, and affirming a non-moral value would not further reduce the resources spent in this domain. To sum up, self-affirmation theory suggests that licensing and cleansing effects would be more likely to be observed among individuals high in moral identity. This prediction is consistent with the abundant evidence from the self-affirmation research (Sherman & Cohen, 2006) that individuals’ perception and behavior are not influenced by values that they consider unimportant. In a majority of these studies, materials involving values that are personally unimportant were actually used as control conditions. In sum, self-affirmation theory suggests that licensing and cleansing effects would be stronger among individuals high in moral identity.
Both theoretical predictions are reasonably justified. To reconcile these competing theoretical views, I will empirically test these two alternative predictions.

**Chapter Six: Hypothesis and Overview**

In the previous chapters I have reviewed the morally relevant concepts and the research on moral self-regulation that shows moral behavior to be a function of self-integrity. In addition, drawing on self-affirmation theory and moral identity theory, I have proposed to develop moral self-regulation research by examining whether non-moral self-integrity also influences moral behavior and whether moral identity moderates this effect. Specifically, I predict an interaction between non-moral self-integrity and moral identity: boosted non-moral self-integrity will reduce moral behavior and threatened non-moral self-integrity will increase moral behavior, and these effects are moderated by the strength of moral identity. Theories, however, predict that this interaction would take one of two alternative forms: moral identity research suggests that the effects would be *weaker* among individuals high in moral identity, whereas self-affirmation theory predicts that the effects would be *stronger* among individuals high in moral identity.

*Hypothesis based on moral identity research: non-moral self-integrity and moral identity will interact to predict moral behavior, such that for individuals low in moral identity, boosting non-moral self-integrity will reduce moral behavior and threatening non-moral self-integrity will increase moral behavior, whereas for individuals high in moral identity, non-moral self-integrity will not influence moral behavior.*

*Hypothesis based on self-affirmation theory: non-moral self-integrity and moral identity will interact to predict moral behavior, such that for individuals high in moral identity, boosting non-moral self-integrity will reduce moral behavior and threatening non-moral self-integrity will
increase moral behavior, whereas for individuals low in moral identity, non-moral self-integrity will not influence moral behavior.

In the following chapters, I present four lab experiments to empirically test the predictions. The experiments involve moral behaviors such as volunteering, donating, cheating, and ethical leadership (i.e., a leader’s effort to establish an ethical environment in the organization). Undergraduate students of the University of Toronto were recruited to participate in the studies through an online signup system (www.sona-systems.com). Across the four studies, the participants received a randomly assigned manipulation designed to change their non-moral self-integrity and were asked to volunteer for a research study for free (Zhong & Liljenquist, 2006), to donate to a charity program (Zhong, in press), to decide whether to deceive an anonymous counterpart for a higher cash reward (Gneezy, 2005), and, as a manager in a simulated task, to decide whether or not to promote an ethical environment in the department (Hegarty & Henry, 1979). Moral identity was measured using a well-validated scale (Aquino & Reed, 2002) either following the moral decision (Study 1 and 2) or one week prior to the moral decision (Study 3 and 4).
Chapter 7: Study 1

Purpose and overview

The purpose of Study 1 was to test whether non-moral self-integrity and moral identity interact to predict whether undergraduate students would volunteer for a research study. The participants received a randomly assigned non-moral self-integrity change manipulation, decided whether to volunteer for a 30-min research study in the next two weeks, and reported their moral identity. Thus, a non-moral self-integrity (boosted, threatened, and control) X moral identity (continuous) between-subjects design was used. It was predicted that boosting non-moral self-integrity would reduce the probability of volunteering (compared to the control condition) and threatening non-moral self-integrity would increase the probability of volunteering (compared to the control condition), either among individuals high in moral identity or among individuals low in moral identity.

Participants and procedure

One hundred and eighty-nine undergraduate students (107 female, $M_{age} = 20.18, SD = 2.68$) from the University of Toronto participated. The participants were approached after they completed an unrelated research study in the behavioral lab of the University of Toronto and were asked to complete a set of questionnaires in order. The questionnaires were (1) a non-moral self-integrity manipulation, (2) a solicitation letter recruiting volunteers for a research study (Zhong & Liljenquist, 2006), (3) a demographic information sheet, and (4) a moral identity scale (Aquino & Reed, 2002).
Materials

*Self-expression.*

Non-moral self-integrity was manipulated through a self-expression task. The participants were presented with nine non-moral values: “athletic”, “intelligent”, “creative”, “persistent”, “physically attractive”, “humorous”, “knowledgeable”, “adventurous”, and “artistic”. These values were selected from Crocker, Luhtanen et al.’s (2003) work on the important values of university students. To test if these values were considered non-moral a pilot test was conducted: twenty-seven undergraduate students ($M_{age} = 19.79$, $SD = 1.78$, 55% female) from the University of Toronto were randomly recruited at the university library to rate the extent to which each value is related to ethics and morality using a 7-point scale (1 = completely irrelevant, 4 = neutral, 7 = completely relevant). The ratings are summarized in Table 1. The results showed relatively high inter-rate reliability: $r_{WG(1)}$ ranged from .63 to .92, with a median of .82 (James, Demaree, & Wolf, 1984). More importantly, the values were perceived to be unrelated to morality and ethics: average ratings of each value ranged from 1.56 to 1.89. These results suggest that the nine values were perceived by university students as non-moral. Thus, they were used to manipulate participants’ non-moral self-integrity.

<table>
<thead>
<tr>
<th>Value</th>
<th>$M$ (ascending)</th>
<th>Range</th>
<th>$SD$</th>
<th>$r_{WG(1)}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic</td>
<td>1.56</td>
<td>1-4</td>
<td>.58</td>
<td>.92</td>
</tr>
<tr>
<td>Artistic</td>
<td>1.56</td>
<td>1-3</td>
<td>.80</td>
<td>.84</td>
</tr>
<tr>
<td>Creative</td>
<td>1.59</td>
<td>1-4</td>
<td>.69</td>
<td>.88</td>
</tr>
<tr>
<td>Humorous</td>
<td>1.63</td>
<td>1-4</td>
<td>.84</td>
<td>.82</td>
</tr>
<tr>
<td>Physically attractive</td>
<td>1.67</td>
<td>1-3</td>
<td>.78</td>
<td>.85</td>
</tr>
<tr>
<td>Knowledgeable</td>
<td>1.78</td>
<td>1-4</td>
<td>.89</td>
<td>.80</td>
</tr>
<tr>
<td>Intelligent</td>
<td>1.85</td>
<td>1-5</td>
<td>.91</td>
<td>.79</td>
</tr>
</tbody>
</table>

Two participants provided ratings that were two standard deviations above the means and were excluded from the analyses.
<table>
<thead>
<tr>
<th>Value</th>
<th>Mean</th>
<th>Range</th>
<th>Standard Deviation</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adventurous</td>
<td>1.89</td>
<td>1-5</td>
<td>.89</td>
<td>.80</td>
</tr>
<tr>
<td>Persistent</td>
<td>2.00</td>
<td>1-3</td>
<td>1.21</td>
<td>.63</td>
</tr>
</tbody>
</table>

*Note.* $r_{WG(1)}$ shows high inter-rater reliability for each value. The low means suggest that undergraduate students perceived these values to be unrelated to morality.

The participants were then randomly assigned to an affirmation, a threat, or control condition. The participants in the affirmation condition boosted their non-moral self-integrity by selecting the most personally important value, writing a short essay to explain why the value was important, and providing an example where they had successfully demonstrated the value. The participants in the threat condition threatened their non-moral self-integrity by selecting the most personally important value, writing a short essay to explain why the value was important, and giving an example where they had failed to demonstrate the value. The participants in the control condition were asked to select the most personally unimportant value, write a short essay to explain why the value was unimportant, and write an example where they demonstrated (half of the participants in this condition) or did not demonstrate (half of the participants in this condition) the value. The minor variation of the control condition material (half participants wrote about demonstrating an unimportant value and half wrote about not demonstrating it) was designed to be more parallel to the wording of the materials in the experimental conditions. As a manipulation check (Cohen, Aronson, & Steele, 2000), participants reported how they felt about themselves (1 = *extremely negative*, 4 = *neutral*, 7 = *extremely positive*), where higher scores would indicate higher integrity. The full materials of self-expression manipulation are available in Appendix A.

*Solicitation letter.*

The letter recruiting volunteers for a research study was adapted from the material used by Zhong and Liljenquist (2006). The letter was written from the perspective of a female Ph.D.
student. She stated in the letter that she needed participants for her dissertation study but she did not have any funding to compensate the participants. She then asked whether the reader of the letter would be willing to participate in a 30-min research study that would be conducted in the next two weeks. At the end of the letter, she asked participants to write down their email addresses if they were willing to volunteer and to leave it blank if they did not want to volunteer. To make the letter more realistic, a bogus name, signature, phone number, and address of the Ph.D. student were printed at the end of the letter. Whether an email address was written at the end of the letter was recorded as measure of volunteering (0 = not volunteering, 1 = volunteering). The full letter is available in Appendix B.

Demographic information.

The participants reported their gender, age, ethnicity, major in school, and first language. The same demographic information sheet was used in the other studies in this dissertation. The full questionnaire is available at Appendix C.

Moral identity scale.

The ten-term scale developed by Aquino and Reed (2002) was used. In this scale, participants were presented with nine moral values (“caring”, “compassionate”, “fair”, “friendly”, “generous”, “hardworking”, “helpful”, “honest”, and “kind”) and were asked to take a moment to imagine how a person with such traits would think, feel, and act. Using a 11-point scale (1 = strongly disagree and 11 = strongly agree), participants then responded to ten items about the relative importance of being a person with such traits within their overall self-perception, such as “Being someone who has these characteristics is an important part of who I am”, “Having these characteristics is not really important to me” (reverse scored), and “I am actively involved in
activities that communicate to others that I have these characteristics”. Aquino and Reed (2002) showed that this scale captures two dimensions of the self-importance of moral identity: internalization (i.e., the extent to which moral traits are centralized within the self-concept) and symbolization (i.e., the extent to which moral traits are communicated to the world through activities and symbols). Aquino and Reed also showed that the construct this scale measures is distinct from concepts such as religiosity and sympathy (rs < .35) and unrelated to concepts such as moral reasoning, self-esteem, and locus of control (rs < .22). Although distinct, the two dimensions of moral identity have been shown to be highly positively correlated. In the present study, this scale also demonstrated high reliability (α = .86). Thus the responses to the ten items were averaged to create a moral identity score, with a higher score representing a stronger moral identity. The full scale is available at Appendix D.

Results

Table 2 summarizes the correlations between moral identity, volunteering, and demographic data. Consistent with previous research (Arnold, 1993; Pratt et al., 2003), moral identity was positively correlated with volunteering, suggesting that individuals who place morality at a more central position in their self-conception were more likely to volunteer.

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>1. Volunteering</td>
<td>0.38 (.49)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Moral identity</td>
<td>7.68 (1.60)</td>
<td>.21**</td>
<td></td>
<td></td>
</tr>
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<td>3. Age</td>
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<td>.02</td>
<td>-.002</td>
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<td>4. Gender</td>
<td>.63 (0.66)</td>
<td>.13</td>
<td>-.002</td>
<td>.24**</td>
</tr>
</tbody>
</table>

*p < .05, ** p < .01, Gender, 0 = female, 1 = male
Control condition material variation

The variation of the control condition materials (i.e., half of the participants wrote about demonstrating a least important value and half wrote about not demonstrating it) did not lead to differences on the manipulation check ($M = 4.9$ versus $M = 5$, $t(60) = -0.33$, $p = .74$) and volunteering probability ($Wald = 0.07$, $p = .79$) and was thus not considered in the data analysis.

Manipulation check

Between-condition comparisons of participants’ responses to the manipulation check revealed that participants’ non-moral self-integrity was successfully manipulated: participants in the affirmation condition felt better about themselves ($M = 5.63$, $SD = 1.12$) than participants in the control condition ($M = 4.95$, $SD = 1.14$), $t(125) = 3.38$, $p = .001$, $r_{equiv} = .29$, who felt better about themselves than participants in the threat condition ($M = 4.31$, $SD = 1.17$), $t(122) = 3.12$, $p = .002$, $r_{equiv} = .27$.

Because moral identity was measured immediately after the volunteering decision, it was possible that moral identity score was influenced by the self-expression manipulation. However, submitting moral identity to an analysis of variance revealed that participants in the different conditions did not differ in their level of moral identity, $ps > .78$.

Hypotheses Test

To examine how the self-expression manipulation and moral identity influenced participants’ volunteering behavior, hierarchical logistic regression analyses were conducted. To test the effect of affirmation and threat in comparison with the control condition, two dummy variables (“Affirmation” and “Threat”) were created. The variables were coded in such a way
that their coefficients would represent the effects of affirmation/threat compared to control on the dependent variable. In the first step, moral identity (MI) and the two dummy variables were included in the regression. In the second step, two interaction terms (Affirmation X MI and Threat X MI) were added to the regression equation. The moral identity score was centered to minimize multicollinearity between moral identity and the interaction terms (Aiken & West, 1991). Table 3 summarizes the results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
<th></th>
<th>Step 2</th>
<th></th>
</tr>
</thead>
<tbody>
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<td>B (SE)</td>
<td>Wald</td>
<td>B (SE)</td>
<td>Wald</td>
</tr>
<tr>
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<td>.39 (.21)</td>
<td>3.57</td>
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<td>.95</td>
<td>-.37 (.39)</td>
<td>.88</td>
</tr>
<tr>
<td>Threat</td>
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<td>1.07</td>
<td>.13 (.44)</td>
<td>.08</td>
</tr>
<tr>
<td>Affirmation X MI</td>
<td>- .63 (.26)</td>
<td></td>
<td>5.82*</td>
<td></td>
</tr>
<tr>
<td>Threat X MI</td>
<td>.87 (.39)</td>
<td></td>
<td>5.14*</td>
<td></td>
</tr>
<tr>
<td>( \chi^2 )</td>
<td>12.24**</td>
<td></td>
<td>38.53**</td>
<td></td>
</tr>
</tbody>
</table>

Unstandardized regression coefficients are presented.
*p < .05, ** p < .01

As Table 3 indicates, the first step of the regression analyses only revealed a main effect of moral identity. The participants higher in moral identity were more likely to volunteer. No main effect of affirmation or threat was found. The second step of the regression revealed a significant interaction between affirmation and moral identity and a significant interaction between threat and moral identity.

To investigate the pattern of the interaction, simple slope analyses (Aiken & West, 1991) were conducted. Specifically, I first identified a high MI score by adding one standard deviation to the mean and a low MI score by subtracting one standard deviation from the mean. To test the effect of affirmation (versus no integrity change) on volunteering when MI was high, I created a new MI variable by subtracting the high MI score from the original MI variable and conducted the logistic regression analysis with the new MI variable (other regression terms remained the
same). To test the effect of threat (versus no integrity change) on volunteering when MI was low, I created a new MI variable by subtracting the low MI score from the original MI variable and conducted the logistic regression analysis with the new MI variable (other regression terms remained the same). Results showed that affirmation led to lower volunteering than the control condition among participants high in moral identity, $B = -1.37$, Wald = 5.70, $p = .02$, odds-ratio = .25, but led to the same level of volunteering as the control condition among participants low in moral identity, $B = .63$, Wald = 1.23, $p = .27$. The same procedure was conducted to investigate the interaction between threat and moral identity. The results showed that threat led to higher volunteering than the control condition among participants high in moral identity, $B = 1.53$, Wald = 5.45, $p = .02$, odds-ratio = 4.62, but led to the same level of volunteering as the control condition among participants low in moral identity, $B = -1.27$, Wald = 2.23, $p = .14$. Figure 1 illustrates the pattern of the two interactions.

To further understand this interaction, it was helpful to investigate the effect of moral identity on volunteering within the affirmation and threat conditions. Logistic regression analyses of volunteering revealed that moral identity positively predicted volunteering in the threat condition, $B=1.27$, Wald=15.2, $p<.001$, odds-ratio = 3.55; Volunteering increased as moral identity increased. On the other hand, in the affirmation condition, moral identity no longer predicted volunteering, $B=-.23$, Wald=2.25, $p=.13$, odds-ratio = .79. When a non-moral value was affirmed, participants high in moral identity exhibited the same level of volunteering as those low in moral identity.

Figure 1. Study 1: Moral identity X non-moral self-integrity interaction
Discussion

The results of Study 1 thus supported the hypotheses based on self-affirmation theory, showing that boosting non-moral self-integrity reduced moral behavior and threatening non-moral self-integrity increased moral behavior among individuals high in moral identity, and non-moral self-integrity did not influence moral behavior among individuals low in moral identity. Interestingly, when a non-moral value was affirmed, individuals high in moral identity exhibited the same level of volunteering as those low in moral identity. This study, however, had the following two limitations. First, in the volunteer recruiting letter, participants were asked to leave the bottom of the letter blank if they did not want to volunteer. It was possible that some participants left the bottom of the letter blank simply because they skipped the letter. Although this could have happened in all experimental conditions and should have been counterbalanced by the random assignment procedure, it was important to replicate the results with a dependent measure without this limitation. Second, the dependent variable in Study 1 was a moral
behavioral intention, not a real moral behavior. The hypotheses should thus be tested with a real behavioral measure. To address these issues and to further test the hypotheses, Study 2 was conducted in another common moral context, namely donation.
Chapter 8: Study 2

Purpose and overview

The purpose of Study 2 was to test whether non-moral self-integrity interacts with moral identity to predict the amount of cash that participants decided to donate to a charity program. Participants received a randomly assigned non-moral self-integrity manipulation, completed a filler task and received cash compensation, and decided whether or not to donate part of the cash compensation to a charity program. They reported their moral identity after the donation decision. Thus, a non-moral self-integrity (boosted, threatened, and control) X moral identity (continuous) between-subjects design was used. It was predicted that, boosted non-moral self-integrity would lead to less donation than the control condition and threatened non-moral self-integrity would lead to more donation than the control condition, either among individuals high in moral identity or among individuals low in moral identity.

Participants and procedure

One hundred and seven undergraduate students (66 female, $M_{age} = 21.77$, $SD = 3.67$) from the University of Toronto participated in Study 2. The participants were recruited through an online signup system (http://rotman.sona-systems.com) for a 30-minute study titled “cognitive ability and personality.” It was indicated in the study description that participants would receive $5 cash compensation. Participants came to the lab to complete the study in 4- to 8-participant sessions. At the beginning of each session, an experimenter seated the participants in separate cubicles and gave them three questionnaires: a demographic information sheet, a filler task (crossing out all “e’s in an engineering article), and the self-expression manipulation. The
demographic information sheet was the same as that used in Study 1. The filler task was borrowed from a published study (Fitzsimons, Chartrand, & Fitzsimons, 2008) and the purpose was to take up time without changing the psychological state of the participants. The non-moral self-integrity manipulation was the same as that used in Study 1. Participants were randomly assigned to the affirmation, threat, or control (no integrity change) condition. After participants completed the questionnaires, the experimenter asked them to follow her to another lab to receive the cash compensation.

A donation stand had been set up in this room, with a large poster of a charity program (See Figure 2 below), two stacks of printed pamphlets from the charity program website, and a donation can. Because the existing donation in the can might influence participants’ decision (e.g., a can full of coins implies that others had been donating, and may put pressure on participants to donate), a non-transparent can with a small opening on the top was used to make it impossible for participants to see the content. The donation stand was positioned in the room in such a way that participants would not notice the donation stand when walking into the room. The poster was retrieved from the website of “Child Family Health International” (http://www.cfhi.org), a nongovernmental organization that places health science students in developing countries to help the local health care programs. This charity program has been used in previous research to measure individual donating behavior (Zhong, in press). I chose this relatively unknown program over other more well-known programs (e.g., Salvation Army, United Way, etc.) so that participants were unlikely to have had previous contact with this program. It was important to control participants’ previous contact with the program because it might influence their decisions in the study (e.g., if one’s family contributed to this program last month, he or she is might contribute more/less today).
Once in the laboratory, the experimenter asked participants to sign a research participation receipt and handed them $5 (three $1 coins and eight ¢ 25 coins). Since participants were usually paid with $5 bills in the lab, the experimenter explained: “I ran out of bills, so I have to pay you with coins” to avoid suspicion from the participants. None of the participants raised questions about the way they were paid. While the participant was about to leave, the experimenter said: “By the way, our school is working together with a charity program to collect donations from all departments of the school. And we have a donation stand in the lab so research study participants can contribute to the charity program if they feel like doing so. The information about the charity program is at the donation stand. Please take a look. If you want to contribute to the program, you can put in whatever amount you feel like in the donation can. If you do not want to contribute, please don’t feel compelled to do so.” The experimenter then walked out of the room, closed the door after her, and waited outside the room.

After the participant made the donation decision and walked out of the room, the experimenter approached and took him or her to a third lab to complete the moral identity scale (α = .81) and to be debriefed. The same moral identity scale as that used in Study 1 was used. In the meantime, another experimenter went into the second lab, examined the donation can,
recorded the amount of money that the participant donated, and emptied the donation can. The amount of money that each participant donated served as the indicator of moral behavior in this study.

A funneled debriefing procedure (Chartrand & Bargh, 1996) was used to probe for suspicion. The participants reported (a) whether they had any suspicion during the study and (b) what they thought was the purpose of the study. The purpose of this procedure was to identify participants whose donating behavior might have been influenced by their awareness of what the tasks were designed for and how the tasks related to each other.

**Results**

Seven participants suspected that the study was related to donating behavior. However, none of the participants was aware of the predicted connection between the self-expression task and the donation task. In addition, excluding the seven participants did not change the results. Thus all the participants were included in the analyses. Table 4 summarizes the correlation between moral identity, volunteering, and demographic data. Consistent with previous research (e.g., Aquino & Reed, 2002), moral identity was positively correlated with donation, suggesting that participants who put morality at a more central position in their self-conception donated more. In addition, consistent with the correlation reported in some studies (e.g., Reed & Aquino, 2003), moral identity negatively correlated with gender, suggesting that female participants reported higher moral identity than male participants.

| Table 4. Study 2: Correlations between study variables |
|-----------------|-----------------|----------|-------|-------|-------|
|                 | M (SD)          | Range    | 1     | 2     | 3     |
| 1. Donation     | 0.79 (1.15)     | 0 - 5    |       |       |       |
| 2. Moral identity| 7.91 (1.44)    | 1.8 - 10.2| .23*  |       |       |
| 3. Age          | 21.77 (3.67)    | 18 - 44  | -.02  | -.08  |
Control condition material variation.

The variation of the control condition materials (i.e., half of the participants wrote about demonstrating a least important value and half wrote about not demonstrating it) did not lead to differences on the manipulation check ($M = 4.8$ versus $M = 4.9$, $t(38) = -0.13$, $p = 0.90$) and donation amount ($M = 0.79$ versus $M = 0.74$, $t(38) = 0.142$, $p = 0.89$) and was thus not considered in the data analysis.

Manipulation check

Between-condition comparisons of participants’ responses to the manipulation check revealed that participants’ non-moral self-integrity was successfully manipulated: participants in the affirmation condition felt better about themselves ($M = 5.42$, $SD = 1.06$) than participants in the control condition ($M = 4.83$, $SD = 1.17$), $t(71) = 2.27$, $p = 0.03$, $r_{equiv} = 0.26$, who felt better about themselves than participants in the threat condition ($M = 4.15$, $SD = 1.28$), $t(72) = 2.37$, $p = 0.02$, $r_{equiv} = 0.27$.

Because moral identity was measured immediately after the donation decision, it was possible that moral identity score was influenced by the self-expression manipulation. However, submitting moral identity to an analysis of variance revealed that participants in the different conditions did not differ in their level of moral identity, $ps>0.64$. 

<table>
<thead>
<tr>
<th>4. Gender</th>
<th>0.34 (0.48)</th>
<th>0 - 1</th>
<th>0.03</th>
<th>-20*</th>
<th>0.01</th>
</tr>
</thead>
</table>

*$p < .05$, **$p < .01$, Gender, 0 = female, 1 = male
Hypotheses test

To test the hypotheses, hierarchical regression analyses of donation amount were conducted. The distribution of the donation amount is positively skewed (skewness = 2.14, SD = .23). Following Aiken and West’s (1991) suggestion, a square root transformation was conducted (i.e., the new donation score is the square root of the original score) to normalize the distribution of this variable. Consistent with Study 1, two dummy variables, Affirmation and Threat, were created to test the effects of affirmation and threat on donation amount. In addition, moral identity (MI) was again centered to minimize multicollinearity between moral identity and the interaction terms (Aiken & West, 1991). In the first step, moral identity (MI) and the two dummy variables were included in the regression. In the second step, two interaction terms (Boosted X MI and Threatened X MI) were added to the regression equation. Table 5 summarizes the results of the analyses.

Table 5. Study 2 hierarchical regression results: Donation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
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<th></th>
<th>Step 2</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE)</td>
<td>t</td>
<td></td>
<td>B (SE)</td>
<td>t</td>
</tr>
<tr>
<td>MI</td>
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<td>2.75**</td>
<td></td>
<td>.11 (.06)</td>
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<td>Affirmation</td>
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<td></td>
<td>.00 (.14)</td>
<td>.00</td>
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<td>Threat</td>
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<td></td>
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<tr>
<td>Affirmation X MI</td>
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<td>-.17 (.10)</td>
<td>-1.73</td>
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<tr>
<td>Threat X MI</td>
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<tr>
<td>R²</td>
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<td>ΔR²</td>
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<td>.08**</td>
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<td></td>
<td></td>
</tr>
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<td>df</td>
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<td>5, 101</td>
<td></td>
</tr>
</tbody>
</table>

Unstandardized regression coefficients are presented.
*p < .05, ** p < .01

As Table 5 indicates, the first step of the regression analyses only revealed a main effect of moral identity. Participants higher in moral identity were more likely to donate. No main effect of affirmation or threat was found. The second step of the regression revealed a significant
interaction between threat and moral identity. The interaction between affirmation and moral identity was marginally significant, \( p = .087 \). To investigate the pattern of the significant interaction, simple slope analyses (Aiken & West, 1991) were conducted through the same procedure as that used in Study 1. The results showed that threat led to higher donations than the control condition among participants high in moral identity (+1SD), \( B = .49, SE = .21, p = .03, r_{equiv} = .21 \), but led to the same level of volunteering as the control condition among participants low in moral identity (-1SD), \( B = -.16, SE = .20, p = .41 \). Figure 3 illustrates the pattern of the interactions.

To further understand this interaction, it was helpful to investigate the effect of moral identity on donation within the affirmation and threat conditions. Regression analyses of donation revealed that moral identity positively predicted donation in the threat condition, \( B=.34, SE=.09, p<.001, r_{equiv} = .57 \); donation increased as moral identity increased. On the other hand, in the affirmation condition, moral identity no longer predicts donation, \( B=-.05, SE=.08, p=.50 \). When a non-moral value was affirmed, participants high in moral identity donated the same amount as those low in moral identity.

Figure 3. Study 2: Moral identity X non-moral self-integrity interaction
Discussion

The results of Study 2 provided partial support for the hypotheses based on self-affirmation theory, showing that threatened non-moral self-integrity increased donations among individuals high in moral identity but did not influence donations among individuals low in moral identity. Consistent with Study 1, when a non-moral value was affirmed, individuals high in moral identity donated the same amount as those low in moral identity. However, the prediction that boosted non-moral self-integrity would reduce donations among individuals high or low in moral identity was not supported. This finding was inconsistent with the results of Study 1. It is possible that the floor effect (Everitt, 2002) in the measurement of donation behaviours prevented the effect of boosted non-moral self-integrity to manifest. Specifically, the setting of this study might have created a strong situation where participants felt uncomfortable not donating even when they may not have felt like donating (Snyder & Ickes, 1985). That is,
when the experimenter (who was an authoritative figure in the lab) asked the participant to take some time to consider donating and left the participant in the room with the door closed, participants might have received a clear signal that they were to put some coins in the can, regardless of how much they actually felt like donating. Therefore, even if participants with boosted non-moral self-integrity were not motivated to donate, this reduced moral intention was not able to manifest as actual donation behavior. If this speculation is correct, it is necessary to further test the hypotheses in a relatively weaker setting.

Another potentially problematic issue in Study 1 and Study 2 was the measurement of moral identity. In the design of the first two studies, participants responded to the moral identity scale after they made a moral decision so that their interpretation of the decision tasks would not be influenced by the exposure to the moral identity scale. However, it was possible that their responses to the moral identity scale might have been influenced somehow by their moral decision. Although it was hard to make a theoretical prediction as to how this potential contamination might have influenced the results of the first two studies, and the data showed that the self-expression manipulation did not influence moral identity, $p > .64$, to guarantee the integrity of the methodology, it was important to rule out possible alternative explanations by conducting an experiment where moral identity would be measured independently of the moral decision.

Furthermore, although the hypotheses apply to morally related behavior in general, including moral, not-immoral, and immoral behaviors (Trevino et al., 2006), the first two studies focused on two positive behaviors (volunteering and donation). Thus it was important to also test the predictions in the context of a negative behavior to demonstrate that the predictions were not moderated by the valence of the moral behavior.
Therefore, Study 3 was conducted to test the hypotheses in the context of deceptive behavior, where the situation was weakened so that individuals could behave more consistently with their moral intentions, and where moral identity was measured independently of the moral decision.
Chapter 9: Study 3

Purpose and overview

The purpose of Study 3 was to test whether boosted non-moral self-integrity increases deception and threatened non-moral self-integrity reduces deception, either among individuals high in moral identity or among individuals low in moral identity. Participants reported moral identity one week before the study. When they arrived at the lab, they were randomly assigned to a non-moral self-integrity condition and completed a decision task where they decided whether or not to deceive another person in order to walk away with more money (Gneezy, 2005). Thus, a non-moral self-integrity change (boosted, threatened, and control) X moral identity (continuous) between-subjects design was used.

Participants and procedure

A total of 178 undergraduate students (88 female, $M_{\text{age}} = 21.69$, $SD = 3.44$) from the University of Toronto signed up for the study for a $5 show-up fee and the opportunity to earn additional cash. One week before the experiment, participants completed the moral identity scale ($\alpha = .89$) and reported their demographic information in an online survey. Participants were told at the beginning of the survey that its purpose was to collect general information about the population of students who usually participate in experiments in the lab and that the survey was irrelevant to the content of the study.

One week later, participants came to the lab to complete the study in 4- to 6-participant experiment sessions. In each session, an experimenter greeted participants and seated them in separate cubicles in a lab. After providing consent, participants were instructed to complete the
self-expression task (same as Study 1 and Study 2). After completing the task, they were told that they would perform a decision game and were given a sheet with printed instructions.

The decision game was adapted from the “Deception Game” used by Gneezy (2005). The title of the game was not included in the experiment material. Participants were told that they had been randomly paired with another person in another lab (which was actually empty) and the task was for them to jointly make a decision. The decision was for them to choose one of the two cash allocation options, which would decide the amount of cash they could receive. Participants were told that the cash they could receive from the task was in addition to the $5 show-up fee. Participants were then shown the content of the two options: Option A indicated that they would receive $8 and their partner in the other room would receive $2, and Option B indicated that they would receive $2 and their partner in the other room would receive $8. Participants were then told that their partner in the other room would not know the content of the two options but it would be up to the partner to decide which option to choose. The only information that the partner would have about the cash allocation options would be a message sent from the participant. Participants were then presented with two messages: “Message 1: Option A gives you more benefit” and “Message 2: Option B gives you more benefit”, and were asked to select one message to send to the partner to facilitate their decision-making. Participants were told that their partners in the other room would never know the content of the options (and thus would not be able to detect the lie) and would never know the identity of the participants in this room (and thus the anonymity of the participant was guaranteed).

Because of the structure of this game, undergraduate participants might confuse the compensation they receive from the task and the show-up fee, misunderstand who knows the content of the messages and who makes the final decision, and miss the fact that the other person
would not know that the information is false. To address these issues, the participants answered four questions about the task before making the decision: (1) “Is the cash I receive from this task on top of my research compensation?” (Yes or No, correct answer = “Yes”), (2) “Who knows the content of the two money allocation options?” (I or the other person, correct answer = “I”), (3) “Who has the final say in deciding which option to choose?” (I or the other person, correct answer = “the other person”), and (4) “Will the other participant find out whether my message is correct or not?” (Yes or No, correct answer = “No”). Participants who answered any of the questions incorrectly were required to re-read the decision task instructions until they answered all questions correctly. Participants were then given two printed messages and were asked to put the message they wanted to send in an envelope and trash the other message. This procedure was to keep the participants’ decisions confidential so their decisions represent more accurately their moral intention in this situation. In sum, in this decision task, participants had an opportunity to misrepresent the content of the cash allocation options to deceive the partner in order to increase the probability of receiving more cash compensation. The full instructions are available in Appendix E.

After participants put the message they wanted to send in an envelope, the experimenter took the envelope to another room ostensibly “to deliver the message to the partner”. In that room, the experimenter recorded the message that the participant sent, took out the message from the envelope, and randomly put $2 or $8 in the envelope. Depending on which message the participants decided to send, a deception measure was created (0 = no deception, 1 = deception). The experimenter then brought the envelope back to the participant and debriefed them. The experimenter specifically explained that, due to limited research funding, no participants were

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3 For each participant, the experimenter used Microsoft Excel® to generate a random number that ranges from 0 to 1. The participant would receive $8 if the number ranged from .51 to 1 and $2 if the number ranged from 0 to .50.
recruited to play their partners; and instead the compensation that each participant received was decided randomly.

Although there are multiple methods to measuring deception and lying in the lab, I chose this particular task because it measures behavior directly and does not rely on self-report. In addition, this task elicits a reasonable level of deceptive behavior (52%; Gneezy, 2005) and is thus more likely to elicit variability in deceptive behavior in the current study and provide an adequate basis for testing my hypotheses. Furthermore, unlike the setting in Study 2, the setting in this study did not give participants any clear clues as to what they should do, and thus their decisions would reflect their psychological status more accurately.

Results

The table below summarizes the correlation between moral identity, deception, and demographic data. Consistent with previous research (e.g., Aquino et al., 2008), moral identity was negatively correlated with deception, suggesting that individuals who consider morality to be more central to their self-concept cheated less.

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
<th>Range</th>
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<th>2</th>
<th>3</th>
</tr>
</thead>
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<td></td>
</tr>
<tr>
<td>2. Moral identity</td>
<td>7.68 (1.60)</td>
<td>3.3 – 11</td>
<td>-.23**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Age</td>
<td>21.70 (3.45)</td>
<td>18 – 52</td>
<td>-.03</td>
<td>.115</td>
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<tr>
<td>4. Gender</td>
<td>.51 (0.50)</td>
<td>0 – 1</td>
<td>-.08</td>
<td>-.09</td>
<td>-.04</td>
</tr>
</tbody>
</table>

*p < .05, ** p < .01, Gender, 0 = female, 1 = male

Control condition material variation.

The variation of the control condition materials (i.e., half of the participants wrote about demonstrating a least important value and half wrote about not demonstrating it) did not lead to
differences on the manipulation check ($M = 4.45$ versus $M = 4.70$, $t(57) = -.98$, $p = .33$) and
deception ($Wald = .42$, $p = .52$) and was thus not considered in the data analysis.

**Manipulation check**

Between-condition comparisons of participants’ responses to the manipulation check
question revealed that participants’ non-moral self-integrity was successfully manipulated:
Participants in the affirmation condition felt better about themselves ($M = 5.41$, $SD = .97$) than
participants in the control condition ($M = 4.88$, $SD = 1.12$), $t(116) = 2.73$, $p = .007$, $r_{equiv} = .25$,
who felt better about themselves than participants in the threat condition ($M = 4.3$, $SD = 1.29$),
$t(117) = 2.63$, $p = .01$, $r_{equiv} = .24$.

**Hypotheses test**

Because the dependent measure is dichotomized, hierarchical logistic regression analyses
were conducted to test the hypotheses (Aiken & West, 1991). Consistent with Study 1 and Study
2, two dummy variables, Affirmation and Threat, were created and moral identity was centered.
In the first step, moral identity (MI) and the two dummy variables were included in the
regression. In the second step, two interaction terms (Affirmation X MI and Threat X MI) were
added to the regression equation. Table 7 summarizes the results of the analyses.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE)</td>
<td>Wald</td>
</tr>
<tr>
<td>MI</td>
<td>-.32 (.11)</td>
<td>8.78**</td>
</tr>
<tr>
<td>Affirmation</td>
<td>.01 (.38)</td>
<td>.001</td>
</tr>
<tr>
<td>Threat</td>
<td>-.09 (.38)</td>
<td>.06</td>
</tr>
<tr>
<td>Affirmation X MI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threat X MI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>9.82**</td>
<td></td>
</tr>
</tbody>
</table>

Unstandardized regression coefficients are presented.
*p < .05, ** p < .01
As Table 6 indicates, the first step of the regression analyses only revealed a main effect of moral identity. The participants higher in moral identity were less likely to deceive the other party. No main effect of affirmation or threat was found. The second step of the regression revealed a significant interaction between affirmation and moral identity and a significant interaction between threat and moral identity. To investigate the pattern of the interactions, simple slope analyses (Aiken & West, 1991) were conducted through the same procedure as that used in Study 1 and 2. The results showed that, among the participants high in moral identity (+1SD), affirmation led to higher deception than the control condition, $B = 2.01, SE = .90$, Wald = 5.04, $p = .03$, odds-ratio = 7.46, and threat led to lower deception than the control condition, $B = -2.58, SE = 1.22$, Wald = 4.52, $p = .03$, odds-ratio = .08. However, among participants low in moral identity (-1SD), affirmation led to the same level of deception as the control condition, $B = -.21, SE = .40$, Wald = .29, $p = .59$, and so did threat, $B = .21, SE = .45$, Wald = .22, $p = .64$. Figure 4 illustrates the pattern of the interactions.

To further understand this interaction, it was helpful to investigate the effect of moral identity on deception within the affirmation and threat conditions. Logistic regression analyses of deception revealed that moral identity negatively predicted deception in the threat condition, $B=-1.22$, Wald=12.71, $p<.001$, odds-ratio =.30. Deception decreased as moral identity increased. On the other hand, in the affirmation condition, moral identity no longer predicts deception, $B=.36$, Wald=3.12, $p=.08$. When a non-moral value was affirmed, participants high in moral identity exhibited the same level of deception as those low in moral identity.

Figure 4. Study 3: Moral identity X non-moral self-integrity interaction
Discussion

The third study provided more empirical evidence that supports the predictions based on self-affirmation theory, showing that boosted non-moral self-integrity increased cheating and threatened non-moral self-integrity reduced deception, but only among individuals high in moral identity. Consistent with Study 1 and 2, when a non-moral value was affirmed, individuals high in moral identity exhibited the same level of deception as those low in moral identity. Moral identity was measured one week prior to the moral decision-making task and thus the possibility that the results could be explained by the influence of the moral decision on participants’ response to the moral identity scale was ruled out. Also of note, because I collected the measure one week prior to the study, it could not affect the cognitive accessibility of moral identity. The setting of this study was also not as strong as that of Study 2 and thus avoided the possible restriction of range of the dependent measure.

So far I have demonstrated the interactive effect between non-moral self-integrity and moral identity on *individual* moral behavior in daily life situations. To investigate whether the
hypotheses would also be supported in an organizational context, it is important to test them with a behavior that has significant managerial and organizational implications. In the next study, I will test my hypotheses with ethical leadership, a leadership behavior that has been shown to influence outcomes at different organization levels (Brown & Trevino, 2006; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Toor & Ofori, 2009; Walumbwa & Schaubroeck, 2009).
Chapter 10: Study 4

Purpose and overview

Ethical leadership is defined by Brown, Trevino, and Harrison (2005) as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making” (p. 120). Ethical leadership includes two types of behaviors: exhibiting moral behaviors and communicating moral principles to subordinates to influence their moral behaviors (Brown et al., 2005). Because the first three studies have focused on individual moral behaviors, I will focus on the second type of behaviors in this study.

Conceptually, this type of behavior represents the leader’s motivation to establish an ethical climate within the organization (Cullen, Victor, & Bronson, 1993; Kaptein, 2008; Palanski & Yammarino, 2009; Schminke, Ambrose, & Neubaum, 2005; Victor & Cullen, 1988), the strength of which has been shown to increase organizational ethical behavior such as whistleblowing (Kaptein, 2011) and reduce employee deviant behavior (D. Peterson, 2002; Stawiski, Tindale, and Dykema-Engblade, 2009). In addition, ethical climate is an important predictor of traditional organizational outcomes such as organizational identification and turnover (DeConinck, 2011; Mulki, Jaramillo, & Locander, 2008; Schwepker, 2008). Therefore, ethical leadership has strong organizational implications and I will test my hypotheses with this behavior.

Specifically, I will test whether boosted non-moral self-integrity reduces ethical leadership and threatened non-moral self-integrity increases ethical leadership, either among individuals high in moral identity or among individuals low in moral identity. Undergraduate

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4 To be concise, I used “ethical leadership” to refer to this specific type of behavior in this dissertation.
students were recruited to play the role of a manager in a simulated decision task, where they decided whether to forbid bribery among subordinates in the department. The extent to which participants forbade bribery among subordinates was recorded as a measure of ethical leadership. The rest of the procedure was identical to that of Study 3. Thus a non-moral self-integrity (boosted, threatened, and control) X moral identity (continuous) between-subjects design was used.

**Participants and procedure**

One hundred and twenty undergraduate students (51 female, $M_{age} = 20.3, SD = 1.44$) from the University of Toronto participated in the experiment for course credit and the opportunity to earn additional cash. One week before the experiment, participants completed the moral identity scale ($\alpha = .84$) and reported their demographic information in an online survey. As in Study 3, they were told at the beginning of the survey that its purpose was for the experimenter to collect general information about the population of students who usually participate in experiments in the lab and that the survey was irrelevant to the lab experiment.

One week later, participants came to the lab and completed the study in 4- to 10-participant sessions. In a lab room, an experimenter greeted participants and assigned each to a computer. The experimenter then randomly assigned participants to experimental conditions (affirmation, threat, or control) and instructed them to complete the self-expression task (same as study 1, 2, and 3). After completing the manipulation, participants received the instructions to complete a simulated management task (See Appendix F for the full instructions), which was designed to measure ethical leadership.
Ethical leadership

The management task was originally designed by Hegarty and Henry (1979) to study how leaders manage bribing behavior among subordinates. In this game, participants played the role of a sales manager in a local organization. As the manager, their task was to decide the number of salespeople to recruit at the beginning of each round for multiple rounds. The number of salespeople would decide the department profit for that round. After multiple rounds of decision, participants with the highest accumulated department profit would be entered into a lottery where they had a chance of winning $50. The participants were thus told that their goal in this task was to maximize the accumulated profit across rounds.

Specifically, each participant was connected to the experimenter through Microsoft Live Messenger, an online communication tool through which individuals could send texts. The experimenter would announce the start of each round and participants would send the number of salespersons they wanted to recruit at that round. As the manager, participants could choose from one to fifty salespersons each round. For the first round, they were told that twenty salespeople would be a reasonable starting point. After all participants have sent the numbers of salespersons to the experimenter, she would find the profit associated with each number by referring to a profit table (see Appendix G) and inform each participant of their profit of that round through Messenger. When some participants selected illegitimate numbers (e.g., 200), the experimenter reminded them that the number should range from one to fifty. Apart from this reminder, the experimenter did not provide any extra information or suggestions to participants. Each participant could only communicate with the experimenter and could not communicate with

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5 The lottery was designed to increase research participation. The high scorers were entered into a lottery at the end of the study and two of them received $50 each.
other participants. In addition, participants were seated apart from each other and could not see others’ decisions.

In the profit table, profit was designed to have a curvilinear relationship with the number of salespersons, where twenty-five salespersons yielded maximum profit and deviating from this number led to reduced profit (see the red line in Figure 5). The full table is available in Appendix G. The instructions informed participants of this curvilinear relationship: “If you employ too few salesmen, although you save on the salaries, you might not be able to fully develop the market potential and would receive low profit. If you employ too many salesmen, in addition to increased salaries, you are also facing the potential competition among your own salesmen over the limited market share, and your profit might also suffer.” The figure was not presented to participants. To test if participants could identify this relationship, fifteen undergraduate students from the University of Toronto were recruited to engage in this simulation task for ten rounds. All participants consistently chose to hire twenty-five salespersons after a few rounds of trial and error. The number of rounds the participants used to identify the optimal number of salespersons ranged from 3 to 7 ($M = 5.06, SD = 1.06$), suggesting that undergraduate students could easily identify the curvilinear relationship between profit and number of salespersons.

Figure 5. Study 4: The curvilinear relationship between profit and the number of salespersons in the profit table.
Note. The figure illustrates the curvilinear relationship between number of salespersons and corresponding profit. To receive the maximum profit in one round the participants needed to recruit 25 salespersons. Participants did not see this figure.

After confirming that participants understood how to perform the decision task, the experimenter announced the first round. For the first ten rounds, the profit was calculated according to the first column of the profit table in Appendix G (i.e., “bribery” column). After the tenth round but before the eleventh round, the experimenter sent a message to the participants through Messenger: “You just discovered that some of your salesmen have been providing bribes to the purchasing agents in your region. You know that bribing purchasing agents is against the company policy and considered illegal and inappropriate in this region. However, you estimated that if you stop the bribes in a round, you have an 80% probability of losing 20% of your profit in that round”. The purpose of this message was to inform the participants about the bribes and to make sure they were aware of the ethical implication of this behavior. To make sure that this message was successfully communicated to participants, the experimenter required them to answer two questions through Messenger: 1. “Is providing bribes against the company policy and illegal?” and 2. “Will stopping bribes reduce your profit?” Participants who answered “yes” and
“yes/probably” respectively were considered to have received the message successfully. Participants who answered either question incorrectly were required to re-read the message and until they answered the questions correctly. The communication history between the experimenter and the participants were automatically recorded by Microsoft Live Messenger, and examining it revealed that 12.5% of participants needed to re-read the message to answer the questions correctly.

Before announcing the eleventh round, the experimenter sent another message to all participants: “starting in the eleventh round, in addition to the number of salespersons you would like to employ, please also indicate whether you would allow your salespersons to provide bribery to the clients”. From the eleventh and the twentieth round, if a participant chose to allow bribery, the profit was calculated with the same schedule as the first ten rounds (i.e., the “bribery” column), whereas if a participant chose not to allow bribery, the profit was reduced by 20% (see the blue line in Figure 5 and the “No Bribery” column in Appendix G). For example, if a participant wanted to employ twenty-five salespersons and allow them to bribe, the profit this participant would receive would be $60k, and if a participant wanted to employ twenty-five salespersons and did not allow them to bribe, the profit would be $48k (i.e., $60k × 80%). The experimenter announced the end of the decision task after the twentieth round. The number of rounds where each participant decided to forbid bribery was recorded as a measure of ethical leadership. Participants were debriefed and thanked following the bribery game.

**Results**

Table 8 summarizes the correlation between moral identity, volunteering, and demographic data. Moral identity theory (Blasi, 2005; Aquino & Reed, 2002) predicts that
leaders high in moral identity are more likely to promote ethical climate to affirm their self-identity. The positive correlation between moral identity and ethical leadership supports this reasoning.

<table>
<thead>
<tr>
<th>Table 8. Study 4: Correlations between study variables</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>1. Ethical leadership</td>
</tr>
<tr>
<td>2. Moral identity</td>
</tr>
<tr>
<td>3. Age</td>
</tr>
<tr>
<td>4. Gender</td>
</tr>
</tbody>
</table>

*p < .05, ** p < .01, Gender, 0 = female, 1 = male

Control condition material variation.

The variation of the control condition materials (i.e., half of the participants wrote about demonstrating a least important value and half wrote about not demonstrating it) did not lead to differences on the manipulation check ($M = 4.68$ vs. $M = 4.88$, $t(39) = .55$, $p = .58$) and bribing behavior ($M = 4.80$ vs. $M = 4.81$, $t(39) = .01$, $p = .99$) and was thus not considered in the data analysis.

Manipulation check.

Between-condition comparisons of participants’ responses to the manipulation check revealed that participants’ non-moral self-integrity was successfully manipulated: Participants in the affirmation condition felt better about themselves ($M = 5.33$, $SD = 1.15$) than participants in the control condition ($M = 4.75$, $SD = 1.10$), $t(77) = 2.3$, $p = .024$, $r_{equiv} = .26$, who felt better about themselves than participants in the threat condition, ($M = 4.07$, $SD = 1.40$), $t(79) = 2.41$, $p = .018$, $r_{equiv} = .26$. 
Hypotheses test

The measure of ethical leadership was the number of rounds where they forbade bribery in the department. Coxe, West, and Aiken (2009) have suggested that if count data violate the assumption of normal distribution they should be analyzed with Poisson regression. A Shapiro-Wilk test of normality was conducted with ethical leadership, which showed that it was not normally distributed, $w = .90, df = 120, p < .001$. Thus, Poisson regression analyses of ethical leadership were conducted to test the effects of non-moral self-integrity and moral identity. Consistent with the first three studies, two dummy variables, Affirmation and Threat, were created and moral identity was centered. The main effects of the three variables on ethical leadership were first tested, with two interaction terms added at the second step. Table 9 summarized the results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$ ($SE$)</td>
<td>Wald $\chi^2$</td>
</tr>
<tr>
<td>MI</td>
<td>.12 (.03)</td>
<td>18.12**</td>
</tr>
<tr>
<td>Affirmation</td>
<td>.13 (.10)</td>
<td>1.65</td>
</tr>
<tr>
<td>Threat</td>
<td>-.08 (.10)</td>
<td>.76</td>
</tr>
<tr>
<td>Affirmation X MI</td>
<td></td>
<td>.24 (.08)</td>
</tr>
<tr>
<td>Threat X MI</td>
<td>-1.18 (.07)</td>
<td></td>
</tr>
<tr>
<td>Deviance$^6$</td>
<td>294.51</td>
<td>261.33</td>
</tr>
<tr>
<td>$DF$</td>
<td>116</td>
<td>114</td>
</tr>
<tr>
<td>$R^2_{deviance}$</td>
<td>.08</td>
<td>.18</td>
</tr>
</tbody>
</table>

Unstandardized regression coefficients are presented.
*p < .05, ** p < .01

As Table 6 indicates, the first regression analysis only revealed a main effect of moral identity. The participants higher in moral identity were more likely to exhibit ethical leadership. No main effect of affirmation or threat was found. The second step revealed a significant

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$^6$ The deviance value represents the extent to which the current model deviates from a perfect model (Coxe et al., 2009). A smaller deviance value suggests a better fitting model.

$^7$ $R^2_{deviance}$ is calculated based on the deviance value, and it approximately measures the model’s goodness of fit (Cameron & Windmeijer, 1997). It is similar to the $R^2$ measure in OLS regression.
interaction between affirmation and moral identity and a significant interaction between threat and moral identity. To investigate the pattern of the interactions, simple slope analyses (Aiken & West, 1991) were conducted through the same procedure as that used in the first three studies. The results showed that, among participants high in moral identity (+1SD), affirmation led to lower ethical leadership than the control condition, $B = .48, SE = .16$, Wald $\chi^2 = 9.11, p = .003$, $r_{equiv} = .25$, and threat led to higher ethical leadership than the control condition, $B = -.26, SE = .12$, Wald $\chi^2 = 4.33, p = .04$, $r_{equiv} = .16$. However, among participants low in moral identity (-1SD), affirmation led to the same level of cheating as the control condition, $B = -.24, SE = .15$, Wald $\chi^2 = 2.51, p = .11$, and so did threat, $B = .29, SE = .16$, Wald $\chi^2 = 3.21, p = .07$. Figure 6 illustrates the pattern of the interactions.

To further understand this interaction, it was helpful to investigate the effect of moral identity on ethical leadership within the affirmation and threat conditions. Poisson regression analyses of ethical leadership revealed that moral identity positively predicted ethical leadership in the threat condition, $B=1.41, SE= .23$, Wald $\chi^2 = 15.7, p<.001$, $r_{equiv} = .49$. Ethical leadership increased as moral identity increased. However, in the affirmation condition, moral identity no longer predicts ethical leadership, $B=-.64, SE=.37$, Wald $\chi^2 = 3.01, p=.08$. When a non-moral value was affirmed, the participants high in moral identity exhibited the same level of ethical leadership as those low in moral identity.

Figure 6. Study 4 Moral identity X non-moral self-integrity interaction
Discussion

The results of Study 4 provide support for the predictions based on self-affirmation theory, showing that boosted non-moral self-integrity reduced ethical leadership and threatened non-moral self-integrity increased ethical leadership, but only among individuals high in moral identity. This finding replicates the results of the first three studies and provides more support for the interactive effect between non-moral self-integrity and moral identity on moral behavior with significant managerial implications. The paradigm used in this study represents a common dilemma that many managers face in their daily managerial decisions: to violate moral norms or even legal regulations to enhance organizational performance (which is usually associated with the managers’ personal interest; in this study, it was the chance of winning $50) or to promote an ethical climate within one’s department despite the risk of suffering losses in terms of organizational performance and personal benefits (in this study, the risk manifested as reduced chance of winning the lottery). The results of this study demonstrate the importance of
manager’s non-moral self-integrity in influencing their effort to maintain an ethical climate, which could in turn influence ethical behaviors at all organizational levels (Kaptein, 2011; Stawiski et al., 2009)

Some aspects of this study can be improved in future research. First, ethical leadership was measured through a simulated task. Although I made the simulation task as close to reality as possible, and participants all confirmed that bribery was illegal and inappropriate, they are still making hypothetical decisions in the lab. Thus, some participants might think it was less of a moral violation to allow bribery in an imagined scenario because no one was really hurt by the bribery. To provide stronger behavioral field evidence, this study needs to be replicated with a more realistic ethical decision in the real work environment. Second, undergraduate students, who lack experience and knowledge of working in an organization, especially managerial experience, are not representative of the manager population, whose decisions have real impact. Students might not fully understand the implication and consequences of illegal behaviors such as providing bribes in organizations. Results would be more meaningful for managing workplace moral behaviors if this study can be replicated with real managers or MBA students.
Chapter 11: General Discussion and Conclusion

Across four studies I demonstrated a systematic connection between people’s non-moral self-integrity, moral identity, and their moral behavior: for individuals high in moral identity, boosted non-moral self-integrity, compared to no self-integrity change, reduced volunteering and ethical leadership and increased cheating, whereas threatened non-moral self-integrity, compared to no self-integrity change, increased volunteering, donation, and ethical leadership, and reduced cheating. For individuals low in moral identity, non-moral self-integrity did not influence their moral behaviors. The four studies provided converging evidence despite the fact that different types of moral behavior were measured and that moral identity was measured at different times. The consistent data provide strong support for the argument that non-moral self-integrity and moral self-integrity are both components of a self-system that aims at maintaining global self-integrity; thus when non-moral self-integrity changes, individuals could compensate by changing their moral self-integrity through moral behavior.

This dissertation develops moral self-regulation research and offers implications for organizational behavior research such as ethical leadership and human resource research such as personnel selection.

Contribution to moral self-regulation research

The findings of this dissertation revealed a connection between individuals’ non-moral self-integrity and moral behavior, which is missing in the current literature (Zhong et al., 2009). The existing research has documented that individuals’ integrity in a moral domain would change their behavior in the same or a close moral domain. For example, when individuals
believed that they had been prejudiced against African Americans they were more willing to support African American events and racial equity movement (Tetlock et al., 2000), and when individuals felt good about themselves for contributing to community services they were more self-indulgent in consumption choices (Khan & Dhar, 2006). This dissertation provides the first piece of empirical evidence that shows individuals’ self-integrity associated with non-moral values such as being intelligent and being attractive could also systematically influence moral behavior in the same way as self-integrity associated with moral values. This dissertation differs from existing research that has demonstrated a similar effect. Specifically, Fein and Spencer (1997) showed that threatening individuals’ self-integrity associated with the value of “being intelligent” increased their stereotypical perception of a homosexual person. The current paper differs from Fein and Spencer’s work in that it investigated multiple non-moral domains in addition to intelligence, and it focused on moral behavioral regulation, not on cognition. More importantly, this dissertation also demonstrates the importance of moral identity in shaping the moral self-regulation process.

Zhong et al. (2009) suggested that moral integrity functions as an important boundary condition for the licensing and cleansing effects, but did not articulate how moral identity would moderate these effects. Although moral identity research suggests that the effects should be weaker among individuals high in moral identity, self-affirmation theory predicts the opposite. These two competing predictions were empirically tested in four studies, and the data converged to support the view of self-affirmation theory. How might this be reconciled with Colby and Damon’s (1992) observation that moral exemplars, who presumably have high moral identity, usually behave morally regardless of aversive factors? I argue that the answer to this seeming contradiction lies in the different understanding of what high moral identity means. In this
dissertation, I consider individuals to have high moral identity if they consider morality as one of the important components of their overall identity, and moral exemplars are individuals who consider morality to be the most important component of their overall identity. My understanding of high moral identity suggests that there are other identity components that are at least as important as morality. Thus, one’s moral behavior could be influenced by self-perceptions associated with these identity components (Steele, 1988). This view of high moral identity is more appropriate in this dissertation, because its purpose is to understand the moral behavior of individuals in business organizations, who usually considers some aspects of their identity (e.g., performance, career) to be at least as important as morality. In addition, my participants were undergraduate students, whose moral identity should only be one of the important components of their self-conception (Crocker, Luhtanen et al., 2003). I acknowledge, however, that the findings of this dissertation might not apply to moral exemplars. Future research could directly measure whether moral identity is one of several important identity domains or the most important domain, and test if it moderates the interaction between non-moral self-integrity and moral behavior found in this dissertation.

**Contribution to moral identity research**

This dissertation also contributes to moral identity research by demonstrating that the association between the self-importance of moral identity and moral behavior would be weakened when individuals’ non-moral self-integrity is affirmed. The early development of moral identity research assumes that moral identity positively predicts moral behavior because people want to maintain a positive view of the moral self (e.g., Bergman, 2005; Blasi, 2005). This dissertation, however, challenges this assumption by arguing that moral behavior is driven
instead by global self-integrity, which encompasses moral self-integrity as well as non-moral self-integrity. Thus when non-moral self-integrity is affirmed the goal of maintaining global self-integrity is satisfied, and consequently the motivating effect of an important moral self is weakened. Supporting this reasoning, the four studies involving different forms of moral behaviors consistently demonstrated that, when a non-moral value is affirmed, individuals high in self-importance of moral identity exhibited less moral behavior than those in the control condition. Indeed they exhibited the same low level of moral behavior as those low in moral identity in the affirmation condition. These findings suggest that moral identity predicts moral behavior only when the goal of maintain global self-integrity is not satisfied. Considering the example of Mother Teresa, who appeared to have consistently exhibited high levels of moral behavior, this dissertation suggests that moral identity is an insufficient explanation for consistently high levels of moral behavior, as indicated by the systematic fluctuations of moral behavior of individuals high in moral identity.

**Team and group integrity**

This dissertation focused on the dynamics between people’s non-moral self-integrity and their individual moral behavior. One direction for future research is to examine if the integrity associated with one’s social group influences one’s moral behavior in similar ways. Social identity theory (Tajfel & Turner, 1986) suggests that individuals want to believe that their social group is good, competent, and desirable. From the perspective of integrity, this theory suggests that individuals want their social groups to have integrity. When the integrity associated with one’s social group is boosted, the person might feel that, as a member of the group, he or she has also established integrity (Cialdini et al., 1976), and consequently reduce individual moral
behavior. On the other hand, when the integrity associated with one’s social group is compromised, the person might feel associated guilt (Doosie, Branscome, Spears, & Manstead, 1998; Swim & Miller, 1999) and consequently increase his or her moral behavior. This speculation is consistent with some existing findings. For example, Gino, Gu, and Zhong (2009) found that witnessing an in-group member’s unethical behavior when out-group members were present (threat to in-group integrity) compared to when no out-group members were present (no threat to in-group integrity) made individuals feel more guilty, and consequently increased their own ethical behavior.

Another promising way to develop this research is to investigate whether the findings of this dissertation can be extended to the team setting. This direction has significant organizational implications because most important decisions in organizations are made by teams rather than individuals (Hollenbeck et al., 1995; Vroom & Jago, 1988). However, research on team level ethical decision-making is missing in the literature (Trevino et al., 2006). Specifically, future research can examine whether boosting the integrity of a team would license unethical team decisions, while threatening the integrity of a team would encourage ethical team decisions.

The mechanism underneath non-moral licensing and cleansing

A limitation of this dissertation is that it did not examine the mechanism that explains the effects of non-moral self-integrity on moral behavior. The logic behind the effects was that non-moral self-integrity and moral self-integrity both serve the goal of maintaining global self-integrity. Thus, the mechanism should be a psychological process related to global self-integrity. The self-affirmation research sheds little light on this issue. Although multiple mechanisms such as affect or mood (Tesser, 2000), physiological arousal (Arndt & Goldenberg, 2002), state self-
esteem (Fein & Spencer, 2007), self-certainty (Sherman & Cohen, 2006), and other focused affect (Crocker, Niiya, & Mischkowski, 2008) have been suggested to explain the fluidity between individuals’ perception and behavior associated with unrelated values, none have received strong support (Sherman & Cohen, 2006). It has further been suggested that the mechanism might not be conscious (Koole et al., 1999; Zhong et al., 2009). Future research could borrow research methodology from research on unconscious processing (Bargh, 2007; Bargh & Chartland, 1999) to investigate the mechanism.

Managerial implication

Within the management literature, integrity has been associated with two areas of research: leadership and personnel selection. I will discuss the implication of this dissertation in each area.

**Integrity and leadership**

Leadership research has suggested that leader integrity, as a virtue, should be systematically studied to better understand the leadership process (Becker, 1998; Simon, 2002). This research has theorized or shown that, when a leader has high compared to low integrity, followers trust the leader more (Simons, 2002), are more committed to the organization (Simons et al., 2007), demonstrate more moral intentions (C. Peterson, 2004), exhibit more ethical behavior (White & Lean, 2007), and exhibit more organizational citizenship behavior (Dineen et al., 2006). In addition, organizations are more profitable (Simons & McLean-Parks, 2000) and have a stronger ethical climate (Palanski & Yammarino, 2009). Further, the leader is more effective at social aspects of the job (Palanski & Yammarino, 2009). In addition, Palanski and
Carroll (2006) demonstrated that a team member with higher integrity was more likely to emerge as the leader of the team.

The findings of this dissertation, particularly those of Study 4, suggest that, although demonstrating integrity to followers help establish a leader position and leads to positive organizational outcomes, considering oneself to have too much non-moral integrity could backfire and license a leader’s own immoral behavior, which could lead to disastrous consequences to the organization and stakeholders. On the other hand, experiencing insufficient integrity could actually encourage the leader to engage in more moral behaviors, which could potentially benefit the organization, as Study 4 has shown. This dissertation, however, in no way suggests that leaders should exhibit high integrity to subordinates while experiencing insufficient self-integrity (which ironically is a sign of lack of integrity). It only suggests that leaders should understand the importance of integrity as a leader and at the same time be alert to the dangers of excessive self-integrity.

Moreover, this dissertation suggests that leader integrity is not necessarily related to ethics and morality. As long as a leader is behaving consistently with his or her internal beliefs and values, the leader should feel a sense of integrity, which could influence subordinates’ perception and behavior in the same way as moral integrity could. This assertion is consistent with the recent finding that leader behavioral integrity leads to positive employee outcomes such as trust in leader, satisfaction, and commitment (Simons et al., 2007), where behavioral integrity was described as the consistency between one’s behavior and one’s words (Simons, 2002). However, philosophers have argued that certain types of non-moral integrity might be weaker than moral integrity (Godlovitch, 1993) and would thus have less impact on subordinates’
behaviors. Future research could test whether the type of integrity that a leader demonstrates would moderate the relationship between leader-integrity and organizational outcomes.

Finally, given the finding that ethical leadership and ethical climate influence subordinate attitudes and behavior as well as organizational level outcomes, the results of Study 4 directly suggest that a leader’s self-integrity could influence these outcomes through ethical leadership and ethical climate. Future research can empirically test this model.

**Integrity and personnel selection**

For several decades, integrity tests have been commonly used in personnel selection (Sackett & Harris, 1984). Integrity tests in personnel selection contexts refer to commercially marketed instruments that measure job candidates’ honesty, dependability, trustworthiness, and reliability (Sackett & Wanek, 1996). Integrity tests can be either overt (i.e., focused on attitudes and history concerning theft) or personality oriented (i.e., focused on general personality traits related to integrity; Sackett, Burris, & Callahan, 1989). They have been consistently shown to predict counterproductive behavior, theft, and job performance (Sackett & Wanek, 1996; Berry, Sackett, Wiemann, 2007).

Although the label “integrity test” suggests that the tests measure job candidates’ integrity, empirical evidence reveals that they actually measure conscientiousness (Hogan & Brinkmeyer, 1997) and honesty (Lee, Ashton, & de Vries, 2005). The honesty dimension is defined “by such content as sincerity, fairness, lack of conceit, and lack of greed” (Marcus, Lee, & Ashton, 2007, p. 182), which is close to the concept of moral self-integrity in this dissertation. Given that broadening the conceptualization of integrity to include non-moral self-integrity might enable us to better predict managers’ performance (Palanski & Yammarino, 2007),
developing integrity tests to include items about non-moral word-act consistency might provide incremental predictive validity over existing tests to predicting job candidates’ future performance.

**Conclusion**

Individuals’ moral behavior contributes to the prosperity of a society and the well-being of its members. This dissertation reveals that ethical decisions are not only influenced by the factors associated with a specific moral situation (e.g., moral judgment, moral emotions, etc.), but also by non-moral factors such as one’s self-perception associated with non-moral values. This dissertation is the first step towards a stream of research that helps us understand the complicated moral self-regulatory processes.
References


Appendices

Appendix A: Self-expression: affirmation

The list below includes several characteristics.

athletic  intelligent  creative
persistent  physically attractive  humorous
knowledgeable  adventurous  artistic

○ Of the characteristics above, I consider _______________ to be the most important to me.

○ Please describe why this characteristic is the most important to you

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

○ Please describe a situation in your life when this characteristic was particularly important and meaningful, and how you successfully demonstrated this characteristic in this situation

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

○ Please describe your general feelings (e.g., how you felt about yourself, how others thought of you, etc) after you successfully demonstrated this characteristic in the situation

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Right now, how do you feel about yourself?

1  2  3  4  5  6  7
Very negative  Neutral  Very positive
Appendix A: Self-expression: threat

The list below includes several characteristics.

- athletic
- intelligent
- creative
- persistent
- physically attractive
- humorous
- knowledgeable
- adventurous
- artistic

○ Of the characteristics above, I consider __________________ to be the most important to me.

○ Please describe why this characteristic is the most important to you

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

○ Please describe a situation in your life when this characteristic was particularly important and meaningful, and how you failed to demonstrate this characteristic in this situation

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

○ Please describe your general feelings (e.g., how you felt about yourself, how others thought of you, etc) after you failed to demonstrate this characteristic in the situation

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

Right now, how do you feel about yourself?

1                      2                    3                      4                       5                     6                      7

Very negative                                           Neutral                                           Very positive
Appendix A: Self-expression: control 1 (demonstrated the characteristic)

The list below includes several characteristics.

athletic  intellectual  creative
persistent  physically attractive  humorous
knowledgeable  adventurous  artistic

○ Of the characteristics above, I consider _________________ to be the least important to me.

○ Please describe why this characteristic is the least important to you

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

○ Please describe a situation in your life when you demonstrated this characteristic

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

○ Please describe your general feelings (e.g., how you felt about yourself, how others thought of you, etc) after you demonstrated this characteristic in the situation

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Right now, how do you feel about yourself?

1  2  3  4  5  6  7
Very negative  Neutral  Very positive
Appendix A: Self-expression: control 2 (did not demonstrate the characteristic)

The list below includes several characteristics.

- athletic
- intelligent
- creative

- persistent
- physically attractive
- humorous

- knowledgeable
- adventurous
- artistic

○ Of the characteristics above, I consider _________________ to be the least important to me.

○ Please describe why this characteristic is the least important to you

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

○ Please describe a situation in your life when you did not demonstrate this characteristic

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

○ Please describe your general feelings (e.g., how you felt about yourself, how others thought of you, etc) after you did not demonstrate this characteristic in the situation

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Right now, how do you feel about yourself?

1                      2                    3                      4                    5       6                       7

Very negative                                           Neutral                                                 Very positive

Appendix B: solicitation letter for research study volunteers used in Study 1
Dear participant,

Thank you very much for completing this questionnaire.

My name is Victoria Wong, a PhD student in Rotman. I need participants for another experiment in the next several weeks. The experiment takes about 30 minutes and is part of my dissertation. Unfortunately, due to funding reasons I will not be able to compensate you in any way (i.e., I can’t pay you with credit or cash), yet I would really appreciate it if you can help me out by participating for free.

If you are willing to help me out, please write down your email below and I will get in touch with you soon. Many thanks in advance! That said, I completely understand that your time is precious and you really don’t have time for this.

Please note that my experiment is irrelevant to the study you have just participated and whether you choose to participate in my experiment or not will NOT influence your compensation in the study you just participated.

Please leave your email if you are willing to participate in my experiment

______________________________________________________________

Yours truly, Victoria Wong
PhD candidate
Rotman School of Management

victoria.wong06@rotman.utoronto.ca
Appendix C: demographic information sheet used in all the studies

What is your gender? Male Female

Age: _____________

Are you a student? Yes No

If yes, what do you study? ___________________________________________________________________ and which year are you in? ____________year

If no, what kind of job do you have? ___________________________________________________________________ and how long have you been working? ____________years

What is your ethnicity (circle one)? Caucasian Asian African Mideast Latino Other

Is English your first language? Yes No
Appendix D: the moral identity scale

Listed below are some characteristics that may describe a person

Caring
Compassionate
Fair
Friendly
Generous
Hardworking
Helpful
Honest
Kind

The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, indicate the extent to which you agree the following statements. Write down the number before each statement

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<td>Very true of me</td>
</tr>
</tbody>
</table>

___ It would make me feel good to be a person who has these characteristics

___ Being someone who has these characteristics is an important part of who I am.

___ I would be ashamed to be a person who has these characteristics.
Having these characteristics is not really important to me.

I strongly desire to have these characteristics.

I often wear clothes that identify me as having these characteristics.

The types of things I do in my spare time (e.g., hobbies) clearly identify me as having these characteristics.

The kinds of books and magazines that I read identify me as having these characteristics.

The fact that I have these characteristics is communicated to others by my membership in certain organizations.

I am actively involved in activities that communicate to others that I have these characteristics.
Attachment E: the instruction for the Deception Game

As you might have seen, the participants of this study have been seated in this room and the room next to this one. You have been randomly paired up with another participant (i.e., your counterpart) in the next room to complete a decision making experiment. We guarantee that neither of you will ever know the identity of the other.

This is how it works: here are two options that determine how much cash you two will respectively receive from us. This cash is on top of the $5 that you will receive for participation.

Option A: $2 to you and $8 to your counterpart

Option B: $8 to you and $2 to your counterpart

Only you know the content of the two options, your counterpart knows the format of the option ($X to one person and $Y for the other) but doesn’t know the specific amounts of money associated with each option. However, it is up to your counterpart to decide which option to choose, not you. The only way you can influence which option to choose is to send one of the two messages below to your counterpart.

Message 1: Option A will earn you more money than option B.

Message 2: Option B will earn you more money than option A.

You counterpart will use your message as a reference to decide which option to choose. We will pay the two of you in private according to the choice made by your counterpart. Thus your counterpart will only know the amount of money that he or she receives for choosing the option. He or she will never know the amount of money offered to him or her in the option not chosen.
(that is, he or she will never know whether your message was true or not). Moreover, he or she will never know the amounts of money you will receive in the two options.

To make sure we have explained the experiment clearly, please answer the questions below by circling the right answer. Notify the experimenter when you have answered all the questions.

Q1: The cash you receive from this decision experiment is on top of the $5 you receive for participation. Yes No

Q2: Who knows the amounts of money associated with each option?
I do My counterpart does Both of us

Q3: Who decides which option to choose?
I do My counterpart does Both of us

Q4: Will my counterpart know the cash I receive from this experiment? Yes No

Please notify the experimenter.

Now, please tear the messages off, put the message you want to send in the envelope we provided, and toss away the message you choose not to send.

| Option A will earn you more money than option B. | Option B will earn you more money than option A. |
Attachment F: Instruction of the simulated management task (Study 4)

You are playing a multi-round decision-making task. You will play the role of a Regional Sales manager of a large wholesaling firm. The decision you need to make in each round is the number of salesmen to employ. If you employ too few salesmen, although you save on the salaries, you might not be able to fully develop the market potential and would receive low profit. If you employ too many salesmen, in addition to increased salaries, you are also facing the potential competition among your own salesmen over the limited market share, and your profit might also suffer. The profit you receive in each round will be accumulated. Your goal in this task is to maximize your total profit.

For you reference, the firm’s sales record shows that when 20 salesmen were recruited, the profit was $40k ($40,000). The experimenter will announce the start of the first round, please send the number of salesmen you want to employ to the experimenter through MSN. The experimenter will calculate the profit and sent it to you. The experimenter will then announce the start of the second round, please adjust the number of salesmen based on your profit of the first round and send it to the experimenter. This task will continue for multiple rounds until the experimenter announces the end of the task. We have provided paper and pencil for you to keep track of your accumulated profit. Other participants in the same room as you are playing the same decision task. The three persons who achieved the highest profits in this room will be entered into a raffle, where there is a possibility to win $50.
Appendix G: Profit schedule of the simulated management game (Study 4)

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<th>No Bribery ($k)</th>
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