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**Moral Self-Esteem Enhancement:
The Double-edge Sword in Social Judgments**

By Xiaowei Lu

**A dissertation submitted in partial satisfaction of the
requirements for the degree of
Doctor of Philosophy**

in

Psychology

in the

**Graduate Division
of the
University of California, Berkeley**

Committee in charge:

Professor Kaiping Peng, Chair

Professor Oliver John

Professor Elliot Turiel

Fall 2012

**Moral Self-Esteem Enhancement:
The Double-edge Sword in Social Judgments**

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By

Xiaowei Lu

Abstract

Moral Self-Esteem Enhancement: The Double-edge Sword in Social Judgments

By

Xiaowei Lu

Doctor of Philosophy in Psychology

University of California, Berkeley

Professor Kaiping Peng, Chair

In the current dissertation research, we resolved the different predictions and explored how moral self-esteem enhancement influences an individual's social judgments. By testing the effect of moral self-esteem enhancement in the current dissertation study, we first demonstrated that moral self-esteem was a dynamic, proactive motivational factor that could be changed by situational factors, such as by recalling people's previous moral actions (Study 1). Then we reconciled the different predictions about whether situational factors will make individuals render harsher moral judgments by linking the influence between the change of moral self-concept and affective reactions. When the nature of the social situation was clear, individuals tended to change their affective reaction to respond to the social situation in their judgments. In general, individuals with enhanced moral self-esteem intensified their affective reactions in their social judgments (Study 2). Finally, we emphasized the importance of the interaction between moral self-esteem enhancement and the nature of the social events. When the nature of the social events was ambiguous, individuals would rely on their self-concepts to make motivational attributions. In general, participants with moral self-esteem enhancement would seek for consistency between their self-concepts and their cognitive intention inference (Study 3 and Study 4). In the end, the theoretical contributions and the future research directions were discussed.

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1. CHAPTER ONE: INTRODUCTION

“We don’t see things as they are; we see things as we are.” - Anais Nin

Imagine that you donated some money to a charity organization last week. You mentioned it over the phone to your friend in the morning and felt really good about yourself. After you hang up the phone, you walked into a colloquium room. A student was giving a presentation on his term project research there. Suddenly, he was stuck by a complicated result. One of his classmates stood up and started to explain the result. How would you interpret his classmate’s behavior? Did you think he was sincerely helping him out of the trouble, or just trying to show off and impress the professors around? Would you experience more positive feeling toward this student’s behavior and form a positive impression of him, or feel negatively? Was it possible that your previous moral behavior and your good feeling about yourself colored your inferences, judgments, and reactions? These were the central questions we attempted to answer in the current dissertation project.

1.1 Overview

One of the predominant biases in social judgments is that our perception, interpretation and judgments are colored by our own experience (M. D. Alicke & Guenther, 2011, p. 174). Even by 400 B.C., such a tendency had been recognized and illustrated in Plato’s Allegory of the Cave. In Plato’s thought experiment, a group of prisoners had been chained in the cave, facing a blank wall without any mobility since childhood. The only things they could see and hear were the shadows projected on the wall and the echoes from the outside world behind them. Therefore, the prisoners would take the shadows as the real things and the echoes as the real sounds, since those shadows and echoes were all they had ever seen and heard. In modern society, human beings are just like the prisoners in the parable. All of our perceptions and judgments in daily life are shaped by our own experience. When we encounter the scenario we described at the beginning of this article, we could have enough confidence to believe that the positive moral self-evaluation derived from the antecedent would exert an impact on the judgment in that situation. However, what remains unclear is exactly what kind of impact it would have.

Previous findings in other researchers’ work has provided two different expectations. On one side, if we consider the theories addressing the consistency between the previous experience and the current judgment, such as the self-schema theory (Markus, 1977), false-consensus theory (Alicke & Largo, 1995; Ross, Greene, & House, 1977), social projection theory (Krueger, 1998), or social dissonance theory (Stone, 2003), we tend to infer that those who have positive moral self-evaluations based on their previous experience will interpret other’s social behavior consistently with their own attributes, and project their positive self-concepts onto others. Therefore, they may have the tendency to infer other people’s intentions in a more positive way; view other people from a more positive perspective; or treat other people more leniently. On the other side, a large school of research emerged recently focusing on the moral licensing effect (e.g., Kouchaki, 2011; Merritt, Effron, & Monin, 2010), the moral

cleansing effect (Zhong, Strejcek, & Sivanathan, 2010a), and the moral self-completion theories (Kouchaki, 2011). These studies have demonstrated that individuals' previous moral action can significantly reduce their motivation to behave morally in the subsequent situations.

Therefore, these findings provided two contradictory predictions for our questions: the motivation of keeping self-integrity drives individuals to make social judgments from a more positive perspective, so that they can maintain the consistency between their positive self-concepts and their expressive behavior in social judgments. In contrast, the positive moral self-evaluation may also influence the individual's subsequent behavior so that they feel no pressure to give a positive judgment to others in order to maintain their self-consistency.

Another important factor that has not been adequately studied is the nature of the social event that the individual encountered and the need them to make judgments. Although we could have had a clear guideline that distinguish right and wrong, in most cases in real life, the nature of the situation is ambiguous. As a lay perceiver, we find ourselves frequently in situations in which we do not have enough information to make a clear judgment about the event. Therefore, when we investigate the influence of moral self-esteem on social judgments, we argue that the nature of the social event itself would influence our subsequent behavior significantly. Therefore, in the current study, we explored both conditions: clear-intentioned social situations and ambiguous social situations. We also postulated that part of the contradictions we discussed in the previous paragraph resulted from the confounding effect of the nature of the social events.

Therefore, the main purpose of the current research is to resolve the different predictions and to explore how moral self-esteem enhancement influences an individual's social judgments. Two opposite hypotheses we described above were tested in different social situations. In the following sections, we first reviewed the major moral self-concept and social judgments research perspectives and theories, such as the cognitive-reasoning moral judgment perspective, the moral emotional intuition perspective, and the moral identity theory; and explained how our current research on moral self-esteem enhancement could contribute to the previous research and theories. Secondly, we investigated the relationship between moral self-esteem enhancement and the social attribution and reasoning process. Finally, we presented four empirical studies to test our hypotheses.

1.2 Significance of Study

By testing the effect of moral self-esteem enhancement in the current dissertation study, we contributed theoretically to the literature in this field in three different ways. First of all, we demonstrated that moral self-esteem was a dynamic, proactive motivational factor that could be changed by situational factors, such as by recalling people's previous moral actions. Secondly, we reconciled the different predictions about whether situational factors will make individuals render harsher moral judgments by linking the influence between the change of moral self-concept and affective reactions. Third, we emphasized the importance of the interaction between moral self-esteem enhancement and the nature of the social events. If the nature of the social situation was

clear, individual tended to change their affective reaction to respond to the social situation in their judgments. In general, individuals with enhanced moral self-esteem intensified their affective reactions in their social judgments. If the nature of the social events was ambiguous, individuals would rely on their self-concepts to make motivational attributions. In general, participants with moral self-esteem enhancement will seek for consistency between their self-concepts and their cognitive intention inference. Figure 1.2.1 illustrates the theoretical model of our current study. These two pathways of moral self-esteem enhancement effects not only solve the seeming contradictions in exist literatures, but also shed light on moral judgments in everyday life that are contextually dependent. By showing these two pathways of influence, we also demonstrated that moral self-esteem enhancement is a multifaceted concept.

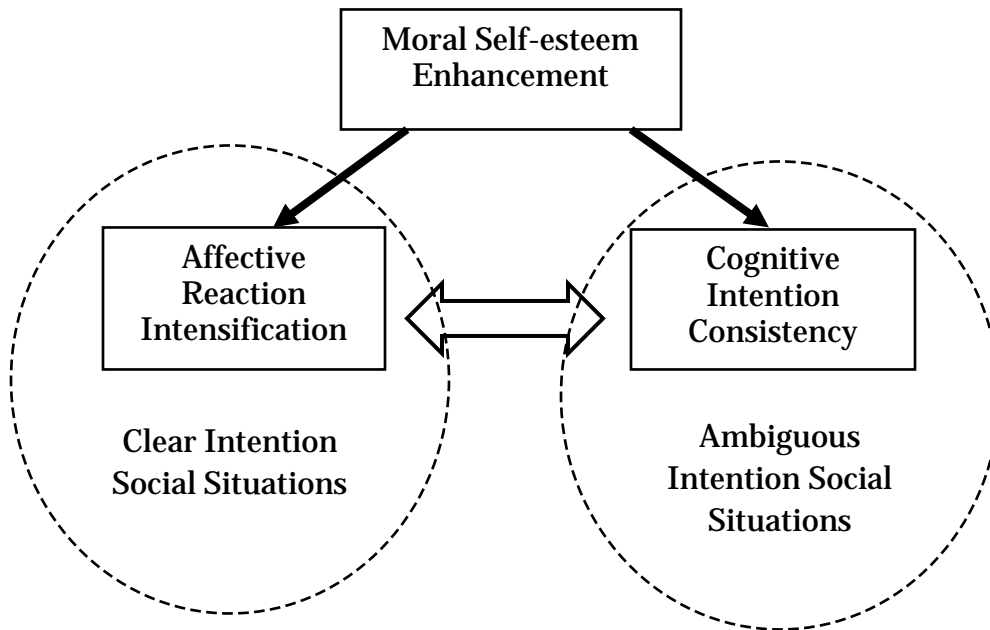


Figure 1.2.1 Two pathways of the influence from the moral self-esteem enhancement on the social judgments

2. CHAPTER TWO: THEORETICAL BASIS

The concept of self has been left out of the moral psychology field for several decades (Monin & Jordan, 2009). In the domain of morality research, there has been a long history of seeking answers for questions about how people make moral judgments in their social lives by reasoning processes. The reasoning perspective of moral judgments can be traced back to Plato's philosophy (4th century B.C.), which describes human beings as creatures using their reasoning heads to control the passionate body to reach a virtuous end. Derived from such a philosophical root and based on Piaget's (1932) pioneering work on the moral development of children, Kohlberg (1969) solidified this reasoning foundation with his cognitive-development theory. In his theory, the central basement of moral judgments was people's understanding of the rights, justice, fairness and welfare of a human being. Later, other psychologists who supported the reasoning approach provided more evidence of the importance of thoughts in moral judgments. For example, Turiel (2006) argued that in general, many types of moral judgments "involve concepts about different groups, social relationships, perspectives on society, and distinctions between when rights should be applied and when they should be denied". Therefore, the reasoning principles of moral judgments were separated into different domains. In contrast to the moral reasoning theory, Haidt (2001) proposed a social intuitionist model. In this model, the intuitional emotion reaction played an important role in moral judgments, whereas moral reasoning played a causal role only when reasoning ran through other people.

No matter which perspective above was taken, in the line of studies on moral reasoning and moral judgments, the concept of self had never become a central theme in this area. Although researchers didn't deny the importance of the influence of individual characters, beliefs, emotion states and so on that related to the self, the motivation of revealing the general mechanism of moral judgments and the reasoning processes made those individual differences less important. The psychologists in either reasoning or intuition traditions were trying to isolate the unique factors that can be used to explain the moral reasoning process and mechanism, but excluded "general psychological elements (e.g., 'ego controls') that were shared with non-moral behavior and cognition" (Kohlberg & Candee, 1984; Monin & Jordan, 2009).

The price of ignoring the self in this area was obvious: it was difficult for researchers to explain the variance or inconsistency in moral judgments when the self-concept as an individual difference variable was omitted from the study. It was also hard for researchers to link the moral reasoning with moral actions, given the complicated interaction between individual variables and the social situations they were in. With these limitations in mind, in the current research, we addressed the function of the moral self-concept in the process of social interactions, especially how moral self-esteem influences social judgments when it was boosted by situational factors.

More specifically, we unfolded our theoretical review chapter in three steps: first of all, we reviewed the theories regarding to the complex and dynamic self-concept system, and explored how moral self-concept research emerged in the moral psychology field. Historically, researchers approached the moral self-concept by either viewing it as a defense mechanism (e.g., Jordan & Monin, 2008a; Paulhus & John, 1998), or viewing it as a part of self-identity (e.g., Aquino & Reed, 2002; Krettenauer, 2011; Reed, Aquino, &

Levy, 2007; Reed & Aquino, 2003; Stets & Carter, 2011). In contrast, a newly emerged cluster of the research approached the moral self-concept from a social psychological perspective (e.g., Jordan, Mullen, & Murnighan, 2011; Monin & Jordan, 2009; Sachdeva, Ilic, & Medin, 2009) and allowed us to view this concept from a more dynamic and more proactive motivational factor standpoint. From this point of view, the changes of moral self-concept were neither a permissive defensive reaction, nor a reflection of individual identities. The enhancement of “moral self-regard” (Monin & Jordan, 2009) became a type of active status that could influence the consequent social judgment and reactions.

Secondly, after we have reviewed the moral self-concept and defined its nature as a proactive, dynamic variable, we revisited the self-enhancement theory and relevant empirical studies, and extended the theory into the moral domain. In addition, we addressed the importance of the nature of social situations. Many researches had used the clear-intentional social situation (i.e., moral transgressive action) as the default stimulus that asked the participants to make judgments. However, in our current research, we contended that the nature of those social events could dramatically interact with an individual’s moral self-regard. Therefore, based on our analysis of the general impact of self-enhancement on social judgments and interactions, we formulated the hypotheses on how moral self-enhancement would influence the affective reaction in clear-intentional social events, and how moral self-esteem enhancement would influence social judgments in ambiguous social situations,.

Third, we looked back to those studies that employed the same dynamic moral self-concept theoretical framework in recent years again. Most researches in line with this topic were intended to demonstrate the impact of the changes of moral self-concept on moral actions. We summarized the theoretical standpoint and the findings in this research and compared our hypotheses with that thread of research. Therefore, we reconciled some ostensibly contradictory predictions and illustrated the consistency imbedded in the different research results.

Finally, we spelled out the framework of our empirical studies in the following chapter.

2.1 The complex self-structure system and the moral self-concept

Since 1980s, psychologists have reached the agreement that the self is a multifaceted concept. It can be viewed as “a set of collection of images, schemas, conceptions, prototypes, theories, goals, or tasks”(Carver & Scheier, 1981; Epstein, 1980; Greenwald & Pratkanis, 1984; Kihlstrom & Cantor, 1984; Markus & Wurf, 1987; Markus, 1983). Such theoretical movements were echoed in the field of sociology, by demonstrating that the concept of identity, the counterpart of the self-concept in the sociology domain, also had a multifaceted structure (Burke, 1980; Lester, 1984; Markus & Wurf, 1987; Martindale, 1980; Weigert, 1983).

Besides the multiplicity or multidimensionality (Markus & Wurf, 1987, p. 306) of the self-concept, another important character of self-concept that has been addressed was its dynamic nature. In a specific social situation, what matters the most is the working, online, or accessible self-concept component (Markus & Wurf, 1987; Markus & Nurius, 1986; Rhodewalt & Agustsdottir, 1986). The holistic self-structure was not

accessible at any one time. Only part of the self-concept, or the active working self-concept, played the dominant role in a given social condition.

When researchers tried to divide self-concept into different substructures along different principles, moral self-concept became one of the most recognizable and most important self-concept components. By reviewing the previous studies, we summarized three important approaches to the moral self-concept: (1) the moral self-concept can be used as a self-defense mechanism; (2) the moral self-concept was defined as the core concept in moral identity theories; (3) the moral self-concept was viewed as a part of dynamic self-concept and a proactive motivational factor. In the following sections, we review different theories and empirical studies according to these three approaches. Then, we address the theoretical perspectives we are taking in the current study: the moral self-concept was a dynamic system that can be shaped by social situational factors, and the change of moral self-concept could play an important motivational factor that influenced an individual's social behavior.

2.1.1 The first approach to the moral self: Moral self as an aspect of defense mechanism

One potential reason that the self has been neglected in the moral research domain in early years is the reaction “against the perceived murkiness of psychodynamic theories influential at the time, and the dearth of empirical support for concepts such as ‘superego strength’ to explain moral learning” (Monin & Jordan, 2009). Recently, however, moral self-concept has become more and more important in this research area when the dynamic nature of the self was emphasized and when the defense mechanism was investigated from a new social psychological perspective.

The dynamic self-structure and the defense mechanism were discussed from both a personality perspective (“Gamma” personality constellation, see Paulhus & John, 1998) and social psychological perspective (e.g., “Moralization” in Jordan & Monin, 2008). Therefore, we review a few empirical research programs from each perspective respectively in the following section.

2.1.1.1 Moral self, personality traits and defense mechanism

Many early studies set up the connection between personality traits and certain defense mechanisms, such as the self-deceptive style or the self-favoring bias. However, not all these connections were related to morality. For example, in the early research on narcissism, researchers demonstrated that there was a strong self-favoring bias with selected personality traits, such as extraversion or openness. These traits reflected more the individual's agency component in their personality characters. However, other traits such as agreeableness or conscientiousness, which may have more moral implications, had no relationship with narcissism (Paulhus & John, 1994).

In the following work by Paulhus and John (1998), they defined two different self-deceptive styles that can be reflected as self-favoring tendencies: “egoistic bias” and “moralistic bias”, which were corresponding to the values of agency and communion. Those values and bias formed two personality constellations, “Alpha” and “Gamma”. The Alpha and Gamma dimensions in personality can be traced back to the work by Wiggins (1964) and Block (1965). The Alpha factor indicted those personality factors

regarding to competency, intelligence and agency; whereas the Gamma factors referred to the personality factors regarding to communion, warmth and morality (Jordan & Monin, 2008b; Paulhus & John, 1998). Such a distinction between the agency and moral personality constellations provided a foundation from a personality perspective for the distinction between two different self-aspects, the agency self and the moral self.

2.1.1.2 Moral self as defense mechanism from social psychological perspective

As we reviewed above, self-concept can be broken down into two dimensions – one concerning competence, agency and ability; and the other concerning morality, warmth, and communion (Paulhus & John, 1998; Tafarodi & Milne, 2002). Such a multidimensional structure in personality studies set up a solid stage for social psychologists exploring how the situational factors influence different dimensions in social settings. From the defense mechanism perspective, if part of the self-worth was threatened by some situational factors, individuals could boost their other self-concept domains to compensate the shortcomings, or to override the negative threatening impact they experienced.

Self-affirmation theory postulated a clear theoretical framework about how such a defense mechanism worked in social life. The basic principle of self-affirmation theory was that individuals were always trying their best to protect their self-integrity or self-worth (Sherman et al., 2009; Sherman & Cohen, 2006; Steele, 1988). They were looking for different methods to maintain “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” (Steele, 1988, p. 266) rather than just certain specific domains in their self-concept. According to Sherman and Hartson’s (2011) summary, self-affirmation functioned as a defense mechanism by actively affirming certain aspects of self-concept to provide an immune system to individuals (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). For example, many empirical studies had demonstrated that self-affirmation could reduce the defensive resistance to unwelcome health-risk information (Harris & Epton, 2009). In one study about the defensive responses to health information in the context of breast-cancer prevention (Sherman, Nelson, & Steele, 2000), when the women participants completed a scale to allow them to assert their central values, they would show more willingness to reduce coffee drinking (a risk factor for breast cancer) than any other conditions. In another study, researchers found that when the heavy alcohol consumers wrote an essay about their important values (such as their political opinions or religious beliefs), they were more open to health information linked to alcohol consumption (Harris & Napper, 2005). However, the influence of self-affirmation was not always positive. For example, Wood, Perunovic and Lee (2009) demonstrated that for those low self-esteem individuals, doing self-affirmation by repeating positive self-statements could actually make them feel worse.

Although many studies had been done on self-affirmation by treating it as a motivational function, few of the previous studies were conducted in the moral domain. Interesting work done by Jordan and Monin (2008) addressed the moral self-concept directly. Jordan and Monin (2008) found that when the competence-self was threatened, participants would inflate their moral-self, which led to certain feelings of moral superiority. This was an empirical example showing that moral status evaluation could

appear as a temporary and fluctuating state. Participants boosted their moral self-regard as a defense mechanism and increased it passively when they felt threats. As the authors indicated: “moral judgment may sometimes just help people feel a little less foolish.”

2.1.2 The second approach to the moral self: Moral self as an aspect of self-identity

Beyond the role of the defense mechanism that moral self-concept played, moral identity was another main research stream that pivots around the self-structure and self-concept. The major purpose of developing moral identity theory was to grasp the moral reasoning process and moral actions (Aquino, Freeman, Reed, Lim, & Felps, 2009; Aquino & Reed, 2002; Blasi, 1980, 1983, 1984; Damon & Hart, 1992; Hart, Atkins, & Ford, 2010; Shao, Aquino, & Freeman, 2008). Although the influence of moral identity on social judgments, attitude formation, and emotional reactions were not investigated as much as the influence on moral actions, moral identity theories addressed the core function of self and provided a lot of insightful findings that could shed some light on our current research interest.

In the following section, we make a general review of moral identity theories. First of all, we explore the role of moral self-concept in the moral identity theory. Secondly, we summarize some important findings about how moral self-concept bridged the moral reasoning process and the moral actions from the identity theory perspective. To be more specific, two different approaches were reviewed following the categorization proposed by Monin and Jordan (2009). One was the moral personality approach which addressing a group of moral characters. The other approach was the moral centrality approach, which addressed the dynamic and multi-faceted nature of self identities from a social-cognitive perspective. Finally, we compared the different roles and impacts of the moral self-concept in defensive mechanism theory and moral identity theory.

2.1.2.1 Moral self in moral identity theory

Similar to other identity theories, the moral self-concept played an important role in the identity theories in moral domains for several reasons. The moral identity theory emphasized the core position and critical significance of the self-concept in moral identity. This theory provided a strong connection between the individual's self and his/her moral concept, since the root of identity, based on Erickson's (1994) proposition, was derived from the very core of one's being and associated with one's understanding of the reality. Therefore, Hart, Atkins, and Ford (2010, p. 515) echoed the importance of the self-concept in the identity theory by defining moral identity as “a commitment to one's sense of self to lines of actions that promote or protect the welfare of others”.

The moral identity theory also addressed the complexity and dynamics of the self-concept in nature. Researchers on moral identity theories made an important assumption that being a moral person may not be a person's overall self-definition (Aquino & Reed, 2002; Blasi, 1984). Therefore, the importance of being a good or moral person can vary along different time and situations. In other words, the importance of the moral self-concept can fluctuate according to different situations. This assertion set up a stage for us to believe that the moral self-concept can be manipulated by experimental conditions.

Finally, the moral identity theory also suggested that moral identity was a part of social identity that can be included in a person's social self-schema. Therefore, the change of moral self-concept might have significant impacts on an individual's understanding and judgment of social events. In other words, an individual's moral identity did not exist independently from social situations. In contrast, there was strong interaction between an individual's moral identity and the social situation that individual was in. The following sections will examine those characteristics in more details.

2.1.2.2 Moral identity: how it bridged the moral reasoning and moral actions

Moral identity theory was mainly applied to fill the gap between moral reasoning and moral actions (Aquino & Reed, 2002; Blasi, 1980, 2005; Shao et al., 2008; Walker & Frimer, 2007). Two different approaches were categorized by Monin and Jordan (2009): the moral personality approach addressed a group of moral characters; the moral centrality approach addressed the dynamic and multi-faceted nature of self identities from social-cognitive perspective. Corresponding to these two categories, Shao, Aquino, and Freeman (2008) summarized them as the moral character perspective and the social-cognitive perspective.

From the personality perspective, researchers were trying to identify those personality profiles associated with morally accomplished individuals. Examining moral exemplars was a common method that was used by researchers to identify moral personality characters. Walker and Firmer (2004) found that compared to a matched control group, the moral exemplars had more secure attachment styles, and had both stronger agentic and communal personalities. Hart, Yates, Fegley, and Wilson (1995) studied the "care exemplars" among inter-city youths. They found that "care exemplars" tended to describe themselves with more moral traits, such as "honest" and "trustworthy". In addition, there were also many non-moral components related to these exemplars' self-concepts. Therefore, although the basic theoretical assumption of the moral personality approach was that there were some personality traits related to those who had highly moral achievement, the studies in this thread of research were not limited to the examination of moral traits (Monin & Jordan, 2009).

From the moral centrality perspective, Blais (1980) pointed out that moral actions were mediated by different cognitive processes such as moral definitions, moral beliefs, and moral reasoning, which made the moral actions a type of conscious behaviors. Therefore, Blais (1983, 1984, 2005) developed the "Self Model" to address the importance of moral beliefs, especially in some extraordinary moral situations. The Self Model conceptualized three components related to moral actions: first, individuals needed to make judgments of responsibilities in the situations, which meant they need to assess if they were responsible for making actions based on their moral judgments. Second, the importance of being moral to themselves, which was defined as moral identity, would influence whether they would make moral actions or not. The third component was the human tendency to strive for self-consistency. Such tendency provided the motivation for moral actions. If individuals believed that they had moral responsibilities in the situation and being moral was central to their self-concepts, they would tend to behave morally to maintain their actions consistent with their self-

recognition. In this theory, researchers tried to identify a series of moral characters that were central and crucial to the self-concepts of those who behaved morally.

Later on, researchers started to focus more on the social-cognitive perspective and started to address the dynamic and multi-faceted nature of self identities. Therefore, moral identity was defined by a group of researchers (e.g., Aquino et al., 2009; Aquino & Reed, 2002; Reed, Aquino, & Levy, 2007; Reed & Aquino, 2003) as “a self-conception organized around a set of moral traits. The definition of moral identity presented here is trait specific and based on recent social-cognition-oriented definitions of the self”. The moral identity scale was developed based on this definition. This moral identity concept comprised two dimensions: one dimension was how important the individuals thought they should possess those moral traits (internalization), the other dimension was how the individuals believed that their daily activities should reflect those moral characters (symbolization). Compared to the moral personality approach, the moral centrality approach didn't examine how many moral traits an individual should possess to make high moral achievements. Instead, the moral centrality approach was interested in how much willingness an individual had to possess those moral characters. In addition, the moral centrality approach also took into account the interaction between self-concept and the situational factors. In their research, Aquino, Freeman, Reed, Lim, and Felps (2009) found that when situational factors made those moral identities more accessible in a working self-concept, participants would be more willing to behavior morally. In another study, Reed and Aquino (2003) found that moral identity was relevant to the interaction patterns of intergroup conflicts.

2.1.2.3 Defensive moral self or Proactive moral self: the two different roles moral-self played

By comparing the defense mechanism of the moral self-concept approach and the moral identity theories, we could notice that the moral self-concept played different roles in these two approaches. From the defense mechanism perspective, the moral self-concept was more permissive in its function and acted as a buffer when individuals experienced a certain threat to some aspect of their self-concept. In contrast to that, the role of moral self-concept in moral identity theories was more proactive. The moral identity was not the permissive response to the change of situational factors, but was a predetermined moral self-status that could determine individuals' response to the external stimulus.

2.1.3 The third approach to the moral self: Moral self as a part of dynamic self-concept and a proactive motivational factor

In recent years, a new approach to the moral self was presented by a group of researchers such as Monin and Jordan (2009). From their perspective, an important part of the moral self-concept was individual's moment-to-moment evaluation of their moral self-status. This group of researchers labeled such moral self-evaluation as the moral self-regard. This term addressed the characters of the moral self-regard such as being very dynamic and can be changed according to the influence of situational factors. Therefore, this perspective of the moral-self took the interaction between the self-concept and the situations into account and focused more on the “working” level of the

self (Markus & Wurf, 1987). In the review by Monin and Jordan, they addressed two important characters of moral self-regard: first, moral self-regard was very sensitive to the situational change by its definition. Secondly, moral self-regard had strong motivational power. People strived to maintain and enhance their positive self-concept. Such motivational tendencies can be applied to the moral-self domain as well. As Monin and Jordan claimed (2009): “people may do so behaviorally by actually being a good person, or cognitively by biasing their construal of the world, favoring self-flattering information, or putting down threatening others.” Compared to moral identities studies, this cluster of studies focused more on the short-term fluctuation of moral self-images and how the regulation of the change on moral images would influence an individual’s ethical behavior. Therefore, they had the closest connection with our current proposed studies.

This perspective was consistent with our current definition of moral self-esteem enhancement. In our current research, we addressed the enhancement of moral self-esteem based on the recalling of previous moral actions. A body of research that emerged in recent years along with this theory mostly focused on the behavioral side. That is to say, when an individual’s moral self-regard was changed by social influence, how would an individual act in response. A few studies touched on the cognitive aspect of how individuals made moral judgments. However, not much effort has been put on the more general influence on social judgments of moral self-esteem enhancement. Therefore, in the remaining part of this section, we firstly review the previous research regarding to how the change in moral self-regard influences individuals moral actions along two lines: the effect of the enhancement of moral self-regard and the decrease of moral self-regard. Then we summarized a few studies addressing the effect of the change of moral self-regard from a cognitive perspective, and pointed out the gap that hasn’t been filled in this area.

2.1.3.1 Moral credential and Vicarious moral self

The first line of research addressed how the enhancement of moral self-regard influence consequential moral actions. This group of studies emphasized the effect of moral credential in several interesting phenomena such as the moral licensing effect and the moral cleansing effect. In the work done by Monin and Miller (2001), they conducted three experiments to test the moral licensing effect. They found in all three experiments that relative to non-credential participants, when the participants were credentialed by previous ethical behavior, such as disagreeing with sexist statements (study 1) or recommending an African American female candidate in an initial job selection task (study 2), they would behave more unethically by showing stronger racial or sexual discrimination or expressing more politically incorrect opinions. Kouchaki (2011) extended Monin and Miller’s finding to the group level. In his studies, he demonstrated that the vicarious moral licensing effect was not only limited to an individual’s own previous behavior. When participants noticed that their group was more moral than similar other groups (study 1a), or learned the moral behavior of their group members (study 1b), they tended to exhibited more discriminating behavior in the following candidate rating task.

Maza and Zhong’s green product study (2010) was another good example of the moral credential effect. While participants bought the green products which had positive

moral implications, they felt licensed by such ethical behavior and behaved more unethically in the following tasks. Sachdeva, Iliev and Medin (2009) further investigated the mechanism of such a moral credential effect by focusing on the effect of changing self-concepts. In their study, when participants were asked to write self-relevant stories containing positive trait words, they would only donate one fifth the amount of money as much as those who wrote stories with negative trait words (study 1). The effect of moral licensing (writing story referring to positive traits) increased participants' moral self-worth (study 2) and decreased the cooperative behavior with others for the good of the environment (study 3). All the studies above highlighted the importance of self-image or self-worth in the study of moral regulations and ethical behaviors, which is one of the central themes in social-cognitive theory. When the previous ethical behavior boosted participants' self-image in the moral domain, they would feel secure regarding the match between their moral self and the expectations from themselves, from others, or from societies. Such a feeling of security would reduce the motivation for individuals to behave morally in the succeeding situations which provided another chance to prove they are morally good; or provide legitimation for the less ethical behavior in the succeeding situations.

Many findings in the studies of moral cleansing (the effect of physical factors on moral behavior) can be explained by the social-cognitive theory and self-regulation theory as well. Schnall, Benton and Harvey (2008) found that after being primed with the cleanliness concept by scrambling words having cleanliness or purity implications (study 1), or physically cleansing the hands after viewing a disgusting video clip, participants will reduce the severity of their judgment on moral issues. Zhong and Liljenquist (2006) also found that after conducting unethical behavior and then cleaning the hands (study 4); participants will be less motivated to volunteer. It seems that the cleansing behavior provided a channel for participants to regulate their self-moral concept.

The findings on moral licensing and moral cleansing effects elicited several interesting questions that we are trying to answer in our current research. All those studies above were interested in how the enhancement of moral self-concept influences individual's own moral behavior. Then, how does such an effect of increased moral self-image extend its influence into the interaction with others? How does the boosted moral self-regard change an individual's judgments or interpretations on other people's behavior? Especially, in many social situations, the interpretation of other people's behavior can be very ambiguous. As the quotation we cited at the beginning of this proposal, "We don't see things as they are; we see things as we are." Therefore, it is very important to answer the questions such as how people change their attributions on other people's social behavior or form their impressions on others when the person him/herself is having a high evaluation regarding to their own moral status. In addition, although there were some results regarding the moral judgments, most of them were investigating the judgments on moral transgressions instead of more complicated or more ambiguous social actions.

2.1.3.2 Moral self-completion: Striving to Self-integrity

The second line of research focused on how the decrease of moral self-regard influences an individuals' subsequent moral action. Moral self-completion provides a

good example. Jordan, Mullen, and Murnighan (2011) found that when participants recalled their immoral behaviors, they would either report to participate more in moral activities (study 1), reported stronger pro-social intentions (study 2), or showed less cheating behavior (study 3). The authors explained such phenomena by self-completion theory that individuals strived to maintain their sense of self-completeness. Such self-completion phenomena could also be extended to the group level. Two studies had been done recently on the in-group member's influence on participants' moral actions, and made salient contradictory conclusions. In one study, Gino, Ayal and (2009) demonstrated that when in-group members behaved immorally as an example, participants followed the model and increased their immoral behavior. However, if the immoral behavior was done by out-group members, the immoral behavior of the participants was decreased. In another study, Gino, Gu and Zhong (2009) found that whether participants behaved more selfishly when their in-group member made unethical models depended on the presence of out-group observer. In their study, confederate wore the participant's school t-shirt to present as in-group member, and another school's t-shirt as an out-group member. When the out-group observer presented an in-group member behaved unethically, and participants behaved more ethically to compensate the unethical behavior from their in-group member. However, if the out-group observer was absent, participants was contaminated by the in-group member's unethical behavior and behaved more unethically. The ostensible conflicts in the two studies above can be explained by self-image regulation theory and emotion reaction theory together. When there is the presence of an out-group member, the participant's moral self is threatened and a guilty emotion was aroused. Therefore, they will conduct compensatory behavior in the following task. Whereas when the out-group observer was absent, the participant may feel morally superior relative to their selfish in-group peer. Therefore, such a boost of moral-self licensed them to behave more unethically in the following task. This explanation was also consistent with the moral self-completion theory.

2.2 Self-concept enhancement and its influence

In this section, we first in general reviewed how self-enhancement influenced social judgment. Then, we extended the mechanism of general self-enhancement parallel to the moral self-esteem enhancement domain.

Since an individual's thoughts, feelings and believes were very salient to what's in people's mind, people tend to feel themselves more important and unique than others and tend to exaggerate their self-importance. According to Alicke and Guenther's (2011) summary, such self-importance could influence an individual's social judgment from four aspects. First of all, individuals would refer to their own self-concept to construe their inference and understanding of others' action in social life. Secondly, individuals tended to evaluate and interpret other's behavior according to their personal standards of acceptability or propriety. Third, individuals would projected their own beliefs, preferences, emotions and values onto others when they made judgments. Fourthly, individuals would distort the information they accepted from others' actions from social comparison to construe their own self-concepts, which made their self-concept more consistent with their definitions based on previous experience. In the following section, we mainly focused on the first three aspects. Although the fourth aspect was also very

important for social judgment, given that it was mainly focused on the interpersonal comparison in social settings, it didn't provide direct theoretical support to our current study. Therefore, we would leave this aspect for further discussion in our further direction section. We went over each of these aspects and extended them into the moral self-esteem enhancement domain.

2.2.1 The moral self-esteem enhancement sets up the standard for making judgments of others' behavior

When people make social judgments, they tend to set up the standards according to their own behavior and knowledge and compare others' performance with it (Alicke & Guenther, 2011; Critcher, Helzer, & Dunning, 2011). Individuals also use their self-concept as the evaluation criterion for judging the appropriateness of other's action. Therefore, there was a tendency that individuals tend to respond more negatively to those peoples and actions that deviate from their own standard.

The "relative-preference effect" was a good example of such a tendency. This effect referred to the tendency that people tend to evaluate others who have dissimilar moral preferences less favorably than those who are similar to themselves. In the research done by Alicke (1993), he found that when an individual faces some dilemma, such as "driving after drinking to pick up his girlfriend" or "stay at home", participants would reduce their rating of blameworthiness if the target people made the same choice as they did. From the self-protection prospective, such a tendency reflected the motivation of individuals to keep from damning themselves by blaming the choice they would make by themselves, even in the conditions where they knew their preferred choice could render severe negative consequences (Alicke, Yurak, & Vredenburg, 1996). Another related phenomena was the tendency of individuals to render more positive evaluations to the attitudes similar to their own, but render more negative evaluations towards the attitudes that are in contrast to their own (Hovland & Sherif, 1952; Judd & Harackiewicz, 1980; Sherif & Hovland, 1965). From the motivational perspective, assimilation of the action that is similar to an individual's preference could validate their own choice or behavior, whereas the contrast to the unfavorable behavior or choice could help individuals separate themselves from those situations they don't like (Alicke & Guenther, 2011).

Therefore, granting the tendency that people tended to judge others with themselves as a standard and were looking for similarities to satisfy the self-protection motivation, we could infer that when an individual's moral self-esteem was enhanced, they would correspondingly raise the bar they were using in their judgments. Therefore, they would have a stronger tendency to react negatively to those moral transgressive behaviors since those actions deviated more from their personal standpoint. On the flip side, they would react more positively to those morally benign events since those events were similar to their own self-concept and they would assimilate those events to further assure their moral advantage in their self-evaluations. Therefore, in our second study of this dissertation, we will test this hypothesis by testing individuals' affective reaction to morally transgressive and morally benign social events.

2.2.2 The moral self-esteem enhancement influenced how people infer other's intentions

There has been a long history of research on how lay people infer traits or attributions from overt behaviors in certain social situations (Heider, 1958). Later on, the self-concept entered this area and contributed a very influential theoretical background to this domain. For example, according to the self-schemas research (Markus, 1977a), researchers demonstrated that people in social interactions applied their own self-construct, experience, and expectation to make sense of others' action, intention and attributes. Another example was Alicke and Weigold's (1990) research on the inference of intention. They found that people tended to refer to their own intention behind certain behaviors in inferring other's intentions in similar social situations. Overall, the individual's self-construal shaped people's social judgment dramatically. In the current study, we applied these principles to the moral domain in social judgment. Especially, if an individual's moral self-concept became more salient to them by the priming of social cues, they might rely more on their moral self-concept to make social judgment.

2.2.3 How individuals project their enhanced moral self-esteem onto others

Social projection is another important topic that has been studied a lot in the social psychology domain. As Alicke and Guenther claimed, social projection "simply refers to using one's internal states or beliefs to estimate what others are thinking or feeling" (Alicke & Guenther, 2011, p. 182). In one study done by Alicke and Largo (1995), they told participants that they were either good or bad on a social sensitivity test. Then, the participants were asked to estimate their peer's performance at the same time. The results showed that if the participants were told they did well on the test, they tended to estimate their peers to have a better performance on the test as well. In contrast, if they were told they did badly on the test, they tended to estimate more failures in their peers. In short, the participants were just projecting their own situations onto their peers.

Another phenomenon that has been studied a lot by social psychologists is "defensive projection". This was derived from the psychodynamic tradition and was empirically tested by Newman, Duff, and Baumeister (1997). When participants identified some traits they didn't like, they had a stronger tendency to project those traits onto others. Researchers argued that the repression of those unwanted traits could actually increase the accessibility of those unwanted traits so that they would be projected onto others.

However, the effect of projects that have been investigated by researchers so far is still very limited (M. D. Alicke & Guenther, 2011, p. 183). In our current study, we hypothesized that individuals will project their enhanced moral self-concept onto others, especially if the social situation is ambiguous in nature. We support our hypotheses from several perspectives: first of all, according to previous studies, enhanced moral self-esteem would serve as an individual's internal states and would be used by individuals as a resource to interpret current social situations. This would provide us similar results as the findings in Alicke and Largo's study. If individuals have more positive moral self-regard, they will project this positive feeling and thinking onto others and tend to interpret ambiguous social events from a more positive perspective.

Secondly, according to the interpretation of defensive projection, individuals tended to project the information that is more accessible to them. Therefore, although our second explanation is not exactly consistent with the logic of defensive projection, we could still argue that enhanced moral self-esteem could make thus morally relevant information hyper-accessible to individuals. Therefore, they would employ more of this information in making their social judgment. Thirdly, we want to emphasize the importance of ambiguity of social events in this hypotheses. We postulate that such a projection effect is more salient when the social situation is ambiguous. When the intention of the characters in the social events are ambiguous and when there is a lack of external resource for individuals to gauge their judgment, individuals have to seek more resources from their internal state and will be influenced more by their self-status.

2.3 The purpose and the outline for current research

In general, the main purpose of the current research is to investigate how the individual factor – the moral self-esteem status -- interacted with the situational factor, the ambiguity of the social events that required social judgment from participants. We wanted to ask the following questions in our dissertation: (1) Is it true that moral self-esteem is a dynamic, fluctuant individual variable that can be manipulated in experimental conditions? (2) If the moral self-esteem can be boosted, how can such enhancement of moral self-esteem influence an individual's social judgment in general? (3) How does the nature of social events (clear moral transgressive events vs. ambiguous events) interact with the individual status of moral self-esteem and influence the social judgment in that specific social event?

Based on the review of previous research on moral identities, moral self, and moral characters, we conceptualize our studies along with the social-cognitive theories and address the dynamic nature of the personal moral self. Therefore, we framed the concept of moral self-esteem enhancement as a short term enhancement of self-esteem that related to the moral concepts in an individual's self-structure. Compared to moral identity theory, which is focused on the trait-based aspect of self-social-schema (Aquino et al., 2009; Aquino & Reed, 2002; Blasi, 1980, 1983, 2005), moral self-enhancement focuses more on state-based aspect of self-evaluation and self-judgment on the moral status. Therefore, moral self-esteem enhancement reflects unique characteristics such as short-term, malleable, and positive emotion-involved. We expect that such short term fluctuation of the self-concept can exert significant influence on individuals' social judgments. Furthermore, we made the argument that the influence of enhancement of moral self-esteem was moderated by the nature of the social events that require the judgment from participants. Previous research had demonstrated that the morally self-enhanced participants could make harsher moral judgments on moral transgressions(e.g., Sachdeva, Iliiev, & Medin, 2009; Zhong et al., 2010; Benoît Monin & Jordan, 2009). We postulated that such harsher moral judgments were only applied to the social events that have clear morally transgressive intentions. In addition, we demonstrated that such harsher judgment could come from stronger affective reaction to the morally transgressive events (study 2). However, many social events were strongly ambiguous in nature. We argued that in ambiguous social situations, participants with enhanced moral self-esteem would seek for self-consistency and would give more positive interpretations to the current social events (study 3 and 4).

Figure 1 illustrates the outline of the current project. In the first study, we validated the priming task that we would use throughout the whole project. Given the potential confounding effect from the enhanced self-esteem and the positive affect, we needed to make sure that our moral self-enhancement priming task would not only prime the positive self-esteem and affect as the control task does. The priming task should prime certain positive self-evaluations particularly related to the moral self when participants compare their moral status to others.

In Study 2 we tested the hypotheses that moral self-esteem enhancement could lead to stronger negative affective reaction to the morally transgressive event, but also to stronger positive reactions to the benign social events. When a participant has positive self-regard in the moral domain, they would tend to maintain such evaluation and believe such a state is stable and fixed. Therefore, they will have less flexibility when they make judgments and become more rigid. So if the nature of social events is clear (a moral transgression or a morally benign action), those participants who are feeling morally good would tend to apply more rigid standard in their judgments and react with more exaggerated emotions. In the second study, we demonstrated such polarized affection reactions to social events from moral self-esteem enhanced primed participants.

In Study 3 and Study 4, we will explore the effect of moral self-enhancement in social judgments in ambiguous social situations. We postulate that when the positive moral self-evaluation is activated in a participant's mindset, the information related to those concepts will be more accessible in an individual's working self. Therefore, when facing an ambiguous social situation, these participants would tend to project their positive moral self-concerns onto the target actor in the ambiguous social situation and make more positive interpretations to actor's behavior, compared to the participant who does feel positive self-concept overall but not particularly about the moral self (Study 2). After investigating the direct effect from moral self-enhancement on ambiguous social situation judgments, we further looked for the underlying mechanism from the cognitive level by testing that participants are more sensitive to information which has moral implications when they feel morally good (Study 3).

3. CHAPTER THREE: THE STUDIES

3.1 STUDY ONE

The purpose of the first study is to enhance participants' moral self-esteem by experimental manipulation -- the priming task. Meanwhile, we need to ensure that the global self-esteem and the affective status remain identical between the priming condition and the control condition. In the current study, we defined moral self-esteem enhancement as a temporary fluctuated state of self-evaluation of their moral status. It's not a cluster of chronic stable traits. Therefore, it can be primed under certain experimental manipulations.

Another important goal of our first study is to verify that the recalling of positive moral actions indeed enhances participants' moral self-esteem. This goal essentially included two parts: (1) we need to verify that the positive story recalling could boost positive emotions and increase self-esteem, instead of making participants feel worse or lowering their self-esteem. (2) we need to test that this effect could be applied in moral self-domains, instead of being constrained within general self-esteem. For the first purpose, it was widely believed that positive self-statements could boost individuals' mood and self-esteem (Wood, Perunovic, & Lee, 2009). However, as Wood, Perunovic and Lee (2009) pointed out, such positive self-statements effects were only found in comprehensive clinical treatment, or in the experiments where there exist many uncontrolled confounding variables (e.g., Treadwell & Kendall, 1996). Indeed, in their study, they found that the positive statements ("*I'm a lovable person*") could only benefit those participants who had high self-esteem. However, for those studies with low self-esteem participants, they actually felt worse after they repeated the positive self-statements.

Therefore, in our first study, we need to compare several main indexes: (1) there should be no significant decrease in global self-esteem, in both priming groups and control groups; (2) there was no significant decrease in positive affect or significant increase in negative affect measurement before and after the priming (control) test; (3) for both the global self-esteem measurement and the affect measurement before and after the priming (control) test, there should be no significant difference between the priming and control group; (4) the moral self-esteem of the priming group should be significantly higher than the control group, which would indicate the effectiveness of the moral self-enhancement manipulation.

3.1.1 Experimental Design

According to the social-cognitive theory (Bandura, 1986), the action of recalling past experiences could activate parts of the self-concept that pertain to that experience. Meanwhile, if the recalled experience was positive, it could arouse the positive affective reaction and boost the global self-esteem as well. Therefore, to distinguish the effect from the enhancement of moral self-esteem from general self-esteem enhancement, we treated the control group in our first study as baseline, and compared the data from the priming group with the control group. The priming group participants were asked to recall an experience that particularly reflects their high moral status, whereas for the

control group, they were asked to recall a trip they enjoyed a lot. Therefore, the control group was also recalling some pleasant experience, but one not related to moral concepts. The global self-esteem, positive and negative affect and moral self-evaluation were measured to test the enhancement effect.

3.1.2 Participants and Procedure

Forty-seven undergraduate students in UC Berkeley took the experiment in exchange for course credits. There were 31 females and 16 males. The average age of participants was 19.89 years old ($SD = 1.74$). There were 13 sophomores, 10 juniors, 15 seniors, and 9 graduate students. Participants were divided into moral self-esteem enhancement priming group or control group randomly. 22 participants were in the priming group, whereas 25 participants were in the control group.

The first study was combined with Study 2 so that there were filler tasks (also the main dependent variables in Study 2) between the priming task and the manipulation check. Participants were invited into the lab to participate in a psychology experiment. After participants signed the consent form, they were asked to answer a set of questions measuring their moral identity (see Appendix 1), the global self-esteem (see Appendix 2) and the positive/negative affect level (see Appendix 3). After that, the priming group participants were asked to recall a scenario in their life which reflected their high moral status. They were asked to take 5 minutes to type this scenario into the blank area on computer. For the control group participants, they were instead asked to recall a pleasant trip and type it into the computer. No participants were allowed to proceed to the next task before the five minutes ran out.

After the priming/control task, participants were required to finish the affective reaction questionnaire which was described in detail in Study 2. Then, they were asked to provide their demographic information. At the end of the demographic information session, three probing questions were asked to measure the moral self-esteem enhancement effect: (1) *Do you consider yourself to have very high moral status?* (2) *Do you think many people have lower moral status than you?* And (3) *Please mark your moral status on the ladder.* In addition, the global self-esteem and positive affect levels were measured again.

3.1.3 Results

Independent t-tests were conducted on several variables: the pre-priming test of global self-esteem, positive and negative effect, and moral identity; and the post-priming tests of global self-esteem, positive and negative effect, and three probing questions on moral self-esteem enhancement. The only significant difference between the priming group and control group appeared on the three probing questions, which indicated the significant moral self-esteem enhancement effect in the priming group. Table 3.1.1 presented the t-test results of different variables.

To calculate a more concise index number for the priming effect, the Z-score of the three probing questions was calculated. The internal reliability of these three items was relatively high, the Cronbach's Alpha = .72. Therefore, we summed up the three z-scores to calculate a single index: Moral self-esteem. The independent t-test showed that the moral self-esteem of the priming group ($M = .94$, $SD = 1.91$) was significantly higher

than the control group ($M = -.83$, $SD = 2.52$), $t = 2.67$, $p < .01$. Most importantly, there was no significant difference between any other variables, which implied that the priming task did only boost the moral self-esteem in the moral self-esteem enhancement group. But the global self-esteem and the positive/negative affect were controlled the identical between priming and control groups.

Figure 3.1.1 shows that the only significant difference appeared between the priming group and the control group on the moral self-esteem index. There was neither any significant change before and after the priming manipulation on global self-esteem, nor any significant difference between the priming group and control group conditions. Figure 3.1.2 illustrated that there were no significant differences between the priming and control group on four affect measurements. However, there was some decrease in positive affect in the priming group (Pre-priming positive affect: $M = 2.57$, $SD = .86$; Post-priming positive affect: $M = 2.27$, $SD = .82$; $t = 2.96$, $p < .05$) and control group (Pre-priming positive affect: $M = 2.64$, $SD = .88$; Post-priming positive affect: $M = 2.36$, $SD = .84$; $t = 4.71$, $p < .01$). There was also a significant decrease in negative affect in the control group (Pre-priming negative affect: $M = 1.40$, $SD = .49$; Post-priming negative affect: $M = 1.27$, $SD = .40$; $t = 3.35$, $p < .01$), but no significant change in priming group (Pre-priming negative affect: $M = 1.42$, $SD = .37$; Post-priming negative affect: $M = 1.34$, $SD = .28$; $t = 1.57$, $p = .13$).

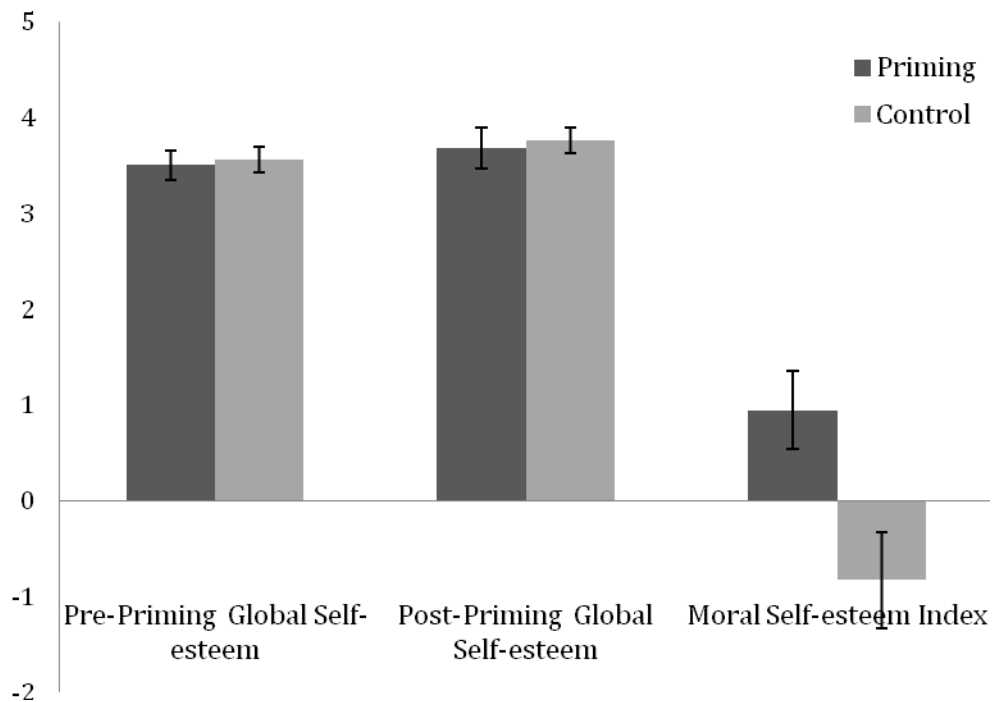


Figure 3.1. 1 The enhancement of moral self-esteem and the stability of global self-esteem

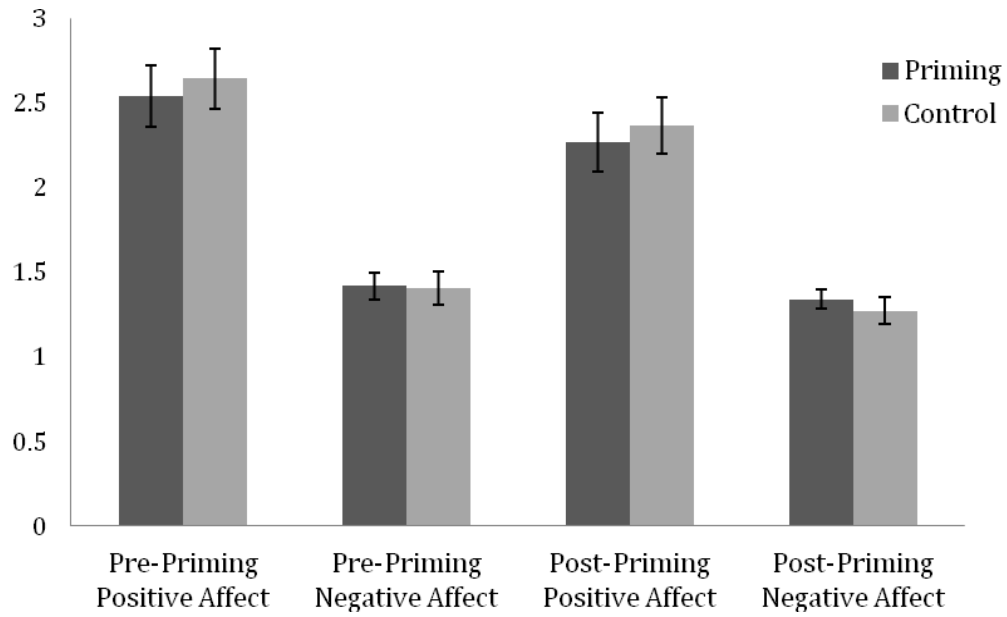


Figure 3.1. 2 The consistency of positive and negative affect before and after priming manipulation

Table 3.1.1 The priming effect and control effect of moral self-esteem enhancement

	Group	N	Mean	SD	t	Sig.
Pre-Priming Global Self-Esteem	Priming	22	3.50	0.74	-0.30	0.77
	Control	25	3.56	0.65		
Moral identity -- Symbolization	Priming	22	3.35	0.58	0.01	0.99
	Control	25	3.34	0.66		
Moral Identity -- Internalization	Priming	22	4.35	0.62	-0.86	0.39
	Control	25	4.49	0.44		
Pre-Priming Positive Affect	Priming	22	2.54	0.86	-0.41	0.69
	Control	25	2.64	0.88		
Pre-Priming Negative affect	Priming	22	1.42	0.37	0.11	0.91
	Control	25	1.40	0.49		
Post-Priming Global Self-Esteem	Priming	22	3.68	0.99	-0.32	0.75
	Control	25	3.76	0.66		
Post-Priming Positive Affect	Priming	22	2.27	0.81	-0.40	0.69
	Control	25	2.36	0.84		
Post-Priming Negative Affect	Priming	22	1.34	0.28	0.68	0.50
	Control	25	1.27	0.40		
Do you consider yourself to have a very high moral status?	Priming	22	4.05	0.58	2.37*	0.02
	Control	25	3.56	0.82		
Do you think many people have lower moral status than you?	Priming	22	3.18	0.85	1.90*	0.06
	Control	25	2.76	0.66		
Please mark your moral status on the ladder.	Priming	22	76.73	10.53	2.03*	0.05
	Control	25	68.56	16.08		
Moral Self-Esteem Index	Priming	22	0.94	1.91	2.67**	0.00
	Control	25	-0.83	2.52		

3.1.4 Discussion

In general, the results of Study 1 demonstrated the efficiency of our priming manipulation. As we expected, the moral self-esteem of the priming group was increased significantly compared to the control group. Such differentiation only existed in the domain related to moral self-esteem. Figure 3.1.1 illustrated that in both priming and control conditions, participants' global self-esteem was increased, although statistically was not significant. It was consistent with the previous findings that positive self-statement could boost self-esteem. Since there was no difference on the global self-esteem, we could infer that any difference we got in the following experiments should contribute to the influence of enhanced moral self-esteem. Therefore, we separated the effect of enhanced moral self-esteem from other self-enhancement influence.

Interestingly, contrary to our initial expectation, in both priming and control conditions, compared to the measurement at the beginning of the experiment, participants' positive affect decreased after they finished all the experiments. We attributed the decrease of positive affect to tiredness and the loss of interest. Although the whole experiment was less than one hour, participants had to read a considerable amount of materials during the process, and needed to work carefully on the computer. Therefore, it was easy and reasonable to induce tiredness at the end of the experiments. Luckily, both the priming group participants and the control group participants exhibited the same patterns on the four affect measurements: pre-priming positive affect, pre-priming negative affect, post-priming positive affect, and post-priming negative affect. There was no significant difference between the priming group and control group on any of these affect measurements. Since our main focus in the current study was how the enhancement of moral self-esteem influence on social judgments, once the priming group and the control group were still comparable, we didn't worry too much about the changes of positive or negative affect influenced by the priming/control task at this point in the project.

In summary, we demonstrated the efficiency of moral self-esteem enhancement manipulation. In the following studies, we tested the influence of the enhancement of moral self-esteem on the social judgments.

3.2 STUDY TWO

According to the previous research on the enhancement of self-concept and social judgments, we could believe that the change of moral self-esteem could influence an individual's moral judgment. However, most researchers had focused on how the moral self-concept impacts moral actions, and not much effort had been put into social judgment issues.

Some researchers conducted a research testing how the physical condition (i.e., cleanliness) could influence judgments on moral issues. Interestingly, the two studies provided ostensibly conflicting results. In Schnall, Benton, and Harvey's work, they found that by activating the cognitive concept of cleanliness (Study 1), or after physically cleansing themselves when participants had experienced some disgust (Study 2), participants would reduce the severity they rendered to the moral violations in their judgments. In contrast to that, Zhong, Strejcek and Sivanathan (2010) found that physical cleanliness can render harsh moral judgment. When participants cleaned their hands before making the moral judgments, the judgments were harsher compared to those made by participants who didn't clean their hands (Study 1). They further found that even just imagining a clean self, participants would render harsher judgments on moral issues (Study 2 and 3). And such priming effects came from the enhancement of moral self-images (Study 3). Looking more closely at these two studies, we could notice that the conflicts were derived from the different paths they took from physical cleanliness to the moral judgment.

Figure 3.2.1 illustrated the different paths these researchers took to approach the question. In Zhong et. al.'s study, the self-image was a mediator between the physical cleanliness and moral judgment. The cleanliness action could enhance the positive self-image, and further lead to harsher moral judgments. In addition, in Zhong et. al.'s study (2010), the self-image in this study was general self-regard. The researchers measured it by asking participants to report on eight self-regard dimensions: sense of humor, intelligence, moral character, creativity, physical attractiveness, fitness, social sensitivity, and leadership. In contrast, in Schnall et. al.'s study, they theoretically developed their study based on the group of studies regarding to disgust, moral intuition, and purity (e.g., Haidt & Joseph, 2008; Holland, Hendriks, & Aarts, 2005; Schnall, Haidt, Clore, & Jordan, 2008; Wheatley & Haidt, 2005).

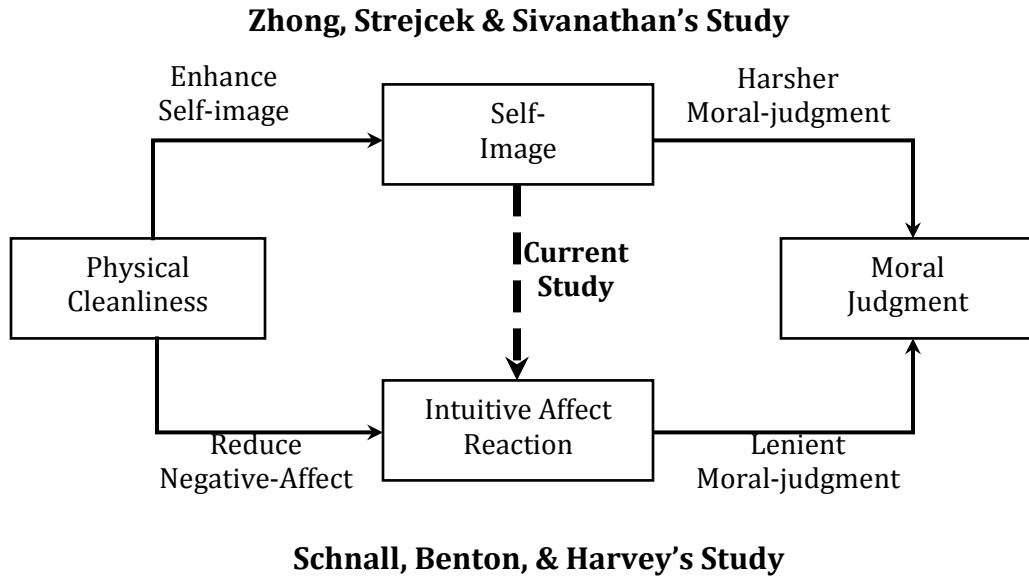


Figure 3.2. 1 Comparison between previous studies and the link between self-image and affective reaction

To reconcile the ostensible conflict between these two groups of studies, in our current study, we were trying to link moral self-regard with intuitive affect reaction to the moral transgressive events. We were interested in how moral self-esteem enhancement could impact individual's response to those situations having clear moral implications. It is important to emphasize here that those social situations all had no ambiguity in nature. Therefore, participants would show no discrepancy in their reasoning process. However, we expected different affective reactions in their moral judgments. We provided two types of social scenarios: moral transgressive episode and benign episode. We hypothesized that moral self-esteem enhanced participants would polarize their affective reactions to these two types of episodes. To be more specific, we wanted to test the following three hypotheses: *H(1)* compared to control group participants, moral self-esteem enhanced participants reacted with stronger positive affects to benign episodes, but less positive affects to the moral transgressive events; *H(2)* compared to control group participants, moral self-esteem enhanced participants reacted with less negative affects to benign episodes, but stronger negative affects to the moral transgressive events *H(3)* in general, compared to control group participants, moral self-esteem enhanced participants showed stronger polarized affective reaction in their social judgments. By testing the relationship between the moral self-image and the affective reaction, we could build up a bridge between the findings in the previous study. If by certain situational factors (not limited to physical cleanliness), individuals could boost their moral self-esteem, they would show stronger affective reactions to the moral events. Therefore, such polarized affective reactions could lead to harsher judgment to the social events.

3.2.1 Experimental Design

The experiment was a 2 by 2 design. One independent variable was two different priming conditions: moral self-esteem enhancement priming vs. control condition. The other independent variable was the positive or negative valences of scenarios that were presented to participants to read and make judgments: morally benign and morally transgressive episodes. The dependent variables were the affective reactions to each scenario and the overall attitude to the characters in the episodes.

3.2.2 Participants and Procedure

One hundred and six undergraduate students and graduate students at UC Berkeley took part in the experiment for course credits. There were 55 males and 51 females. The average age was 20.98 years ($SD = 3.37$). The range was from 18 to 45 years old. There were 16 sophomores, 23 juniors, 42 seniors and 25 graduate students.

Participants were randomly divided into two groups: one was a moral self-esteem enhancement group; the other a control group. After they signed the consent forms, they were asked to complete either the priming task or the control task, which were the same as in Study 1. After they finished the moral self-esteem enhancement section, they were told a cover story that we were interested in how they formed the impression to another person based on his/her behavior. Then, participants were presented three episodes of the character Pat. Within the priming group and the control group, participants were randomly presented one of two types of episodes: the morally transgressive episodes, or the morally benign episodes. All the materials were adapted from Miller, Burgoon and Hall's study (2007). The two transgressive episodes were:

Transgressive episode 1: "You, Pat, and three other students are working together as a group on a class project, and you are all about to give your presentation to the class. You and your fellow group members have now gathered at the front of the classroom. Even though you and Pat disagree with each other's positions, you're not particularly nervous because you have thoroughly prepared your own portion of the presentation. However, soon after you begin your part of the presentation, Pat interrupts your speech, saying, "Excuse me". As Pat pushes you aside, she immediately stepped in front of you and began giving the class her own personal viewpoint."

Transgressive episode 2: "A while ago, you took a tough entrance exam in order to apply to a very respectable college program. Unfortunately, today you received a notification that you are not among the accepted finalists. Pat tells you that you are not that smart since she commented that the exam that both of you have taken was easy."

The two benign episodes were:

Benign episode 1: "You, Pat and another person are walking around during class breaks when someone from a passing car waves and smiles at the three of you. None of you recognize that person or knew why he/she was being so friendly. A moment later, the same car passes by again. Although none of you

recognize any of the people in the car, Pat still waves back in a friendly manner.”

Benign episode 2: “It is late afternoon and you are walking home, carrying a heavy box full of books. Pat was driving home when she saw you. She pulled over to offer you a ride. You thanked her as you shook your head and told Pat that a friend is already on the way. Pat nods back and then drives off.”

After reading each episode, participants were asked to answer the following questions: “On a scale of 1 to 10 (where 1 = none, and 10 = very much), please indicate how each of the following terms applies to how you feel toward Pat as a result of this episode.” There were nine mono-polar emotions: fear, respect, disgust, anger, attraction, negative criticism, appreciation, contempt, and admiration (Miller et al., 2007).

3.2.3 Results

The average rating on four positive affective reactions – *respect*, *attraction*, *appreciation*, and *admiration*, was calculated for each episode as the positive affective reaction score. The average rating on five negative affective reactions – *fear*, *disgust*, *anger*, *negative criticism*, and *contempt* was also calculated for each episode. Next, the two positive affective reaction scores were summed as the positive affective indexes, PA; whereas the two negative affective reaction scores were summed as the negative affective index, NA. Finally, the difference between the two affective reaction indexes were calculated to show the affective reaction polarization level, $DA = PA - NA$. We expected a positive value of DA under benign episode condition, but a negative value of DA under transgressive episode condition.

Three separate ANOVA were conducted by using PA, NA, and DA as dependent variables. The two conditions in ANOVA analysis were “Moral self-esteem enhancement vs. Control” priming condition and “Transgressive vs. Benign” episode nature condition.

On the positive affective reaction (PA), there was a significant main effect from the nature of the episode, $F_{(1, 101)} = 263.33$, $p < .001$, $\omega^2 = .72$. The overall positive affective reaction to the benign episodes was significantly higher than the positive affective reaction to the morally transgressive episodes. There was a non-significant main effect of priming condition, $F_{(1, 101)} = 1.08$, $p = .30$, $\omega^2 = .01$. Importantly, there was a significant interaction effect between the priming condition and the nature of episodes, $F_{(1, 101)} = 5.65$, $p < .05$, $\omega^2 = .02$. This indicated that the moral self-esteem enhancement group and control group participants had different levels of positive affective reaction to the different types of episodes. Specifically, the moral self-esteem enhanced participants responded less positively to the transgressive episodes ($M = 2.38$, $SD = 0.63$) than the control group did ($M = 2.95$, $SD = 1.63$); $t_{55} = -1.68$, $p < .10$. However, the moral self-esteem enhanced participants responded more positively to the benign episodes ($M = 10.26$, $SD = 2.80$) than the control group ($M = 8.81$, $SD = 2.92$), $t_{53} = 1.77$, $p < .10$.

On the negative affective reaction (NA), there was also a significant main effect from the nature of the episode, $F_{(1, 101)} = 287.50$, $p < .001$, $\omega^2 = .74$. However, there was a non-significant main effect of the priming condition, $F_{(1, 101)} = .53$, $p = .47$, $\omega^2 = .01$. The interaction effect between the priming condition and the nature of the episodes was also not significant, $F_{(1, 101)} = 2.49$, $p = .12$, $\omega^2 = .02$. Although the moral self-esteem enhanced participants responded more negatively to the transgressive episodes ($M =$

12.00, $SD = 3.02$) than the control group did ($M = 10.81$, $SD = 3.93$); and responded less negative to the benign episodes ($M = 2.48$, $SD = 0.88$) than the control group ($M = 2.91$, $SD = 1.32$); the interaction was not significant statistically.

To demonstrate the polarization effect more obviously, we calculated the affective reaction polarization level (DA) and conducted the ANOVA on it as well. The larger the absolute value of DA, the more polarized the participants reacted to certain types of episodes. On the DA index, there was a significant main effect from the nature of the episode, $F_{(1, 100)} = 509.90$, $p < .001$, $\omega^2 = .84$. There was a non-significant main effect of the priming condition, $F_{(1, 100)} = .001$, $p = .98$, $\omega^2 = .00$. However, there was a significant interaction effect between the priming condition and the nature of the episodes, $F_{(1, 100)} = 6.24$, $p < .05$, $\omega^2 = .06$. This indicated that the moral self-esteem enhancement group and control group participants had different levels of polarization in affective reactions. Specifically, the moral self-esteem enhanced participants had smaller negative numbers in the transgressive episodes condition ($M = -9.62$, $SD = 3.07$) than the control group did ($M = -7.91$, $SD = 4.50$), $t_{54} = -1.73$, $p < .10$; whereas there was a larger positive number in the benign episodes condition ($M = 7.78$, $SD = 2.89$) than the control group ($M = 6.03$, $SD = 3.41$), $t_{53} = 1.89$, $p < .10$. Both of them indicated the stronger polarization effect from the moral self-esteem enhanced participants.

Table 3.2.1 shows the means and standard deviation of each condition. Figure 3.2.2 shows the main and interaction effects on each index (PA, NA and DA).

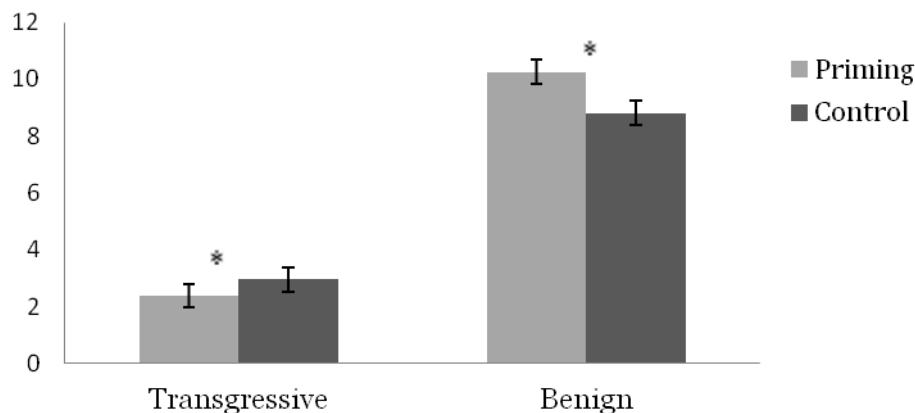


Figure 3.2.2 a Positive Affective Reaction

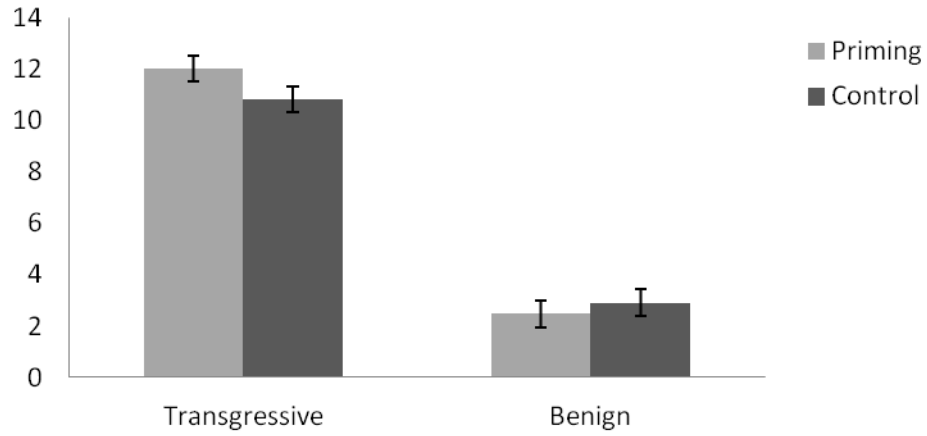


Figure 3.2.2 b Negative Affective Reaction

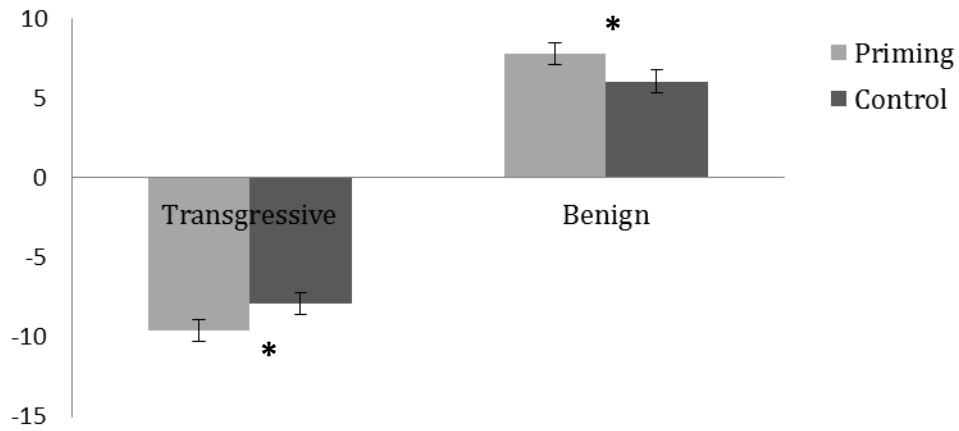


Figure 3.2.2 c Polarization Effect on Affective Reaction

Table 3.2.1 Descriptive statistics of PA, NA and DA in different conditions

		Positive Reaction			Negative Reaction			Polarization Effect		
		Mean	SD	N	Mean	SD	N	Mean	SD	N
Priming	Transgression	2.38	0.63	27	12.00	3.02	27	-9.62	3.07	27
	Benign	10.26	2.80	26	2.48	0.88	26	7.78	2.89	26
Control	Transgression	2.95	1.63	28	10.81	3.93	27	-7.91	4.50	27
	Benign	8.81	2.92	24	2.91	1.32	25	6.03	3.41	24

3.2.4 Discussion

Our results partially supported our hypotheses. Specifically, as we expected, the moral self-esteem enhancement could increase participants' positive affective reaction to the benign social events, but reduce the positive affective reaction to the moral transgressive events (shown in Figure 3.2.2a). Indeed, the moral self-esteem enhancement could increase individual's positive feeling about themselves. However, the results showed that such positive self-feelings do not necessarily lead to more optimistic reactions in social events. The effect of moral self-esteem enhancement depended on the nature of the target events that individuals need to make judgments about. If the events were positive, the moral self-esteem enhanced participants tend to express more positive affect reactions, whereas in the negative event, moral self-esteem enhanced participants actually experienced less positive affect. This is probably due to the conflict between individuals' expectations and the standard they set up for the social judgment. In addition, these results provided some explanation to Zhong et. al.'s (2010a) study that individuals made harsher moral judgments. It might be because the individuals' positive affect was reduced more by reading the moral transgressive event. In other words, the moral transgressive events could "disappoint" the moral self-esteem enhanced participants more than the control group participants.

Contrary to what we expected, the negative affective reactions showed no significant difference between the moral self-esteem enhanced group and the control group. However, although the differences were not statistically significant, the direction of the reaction was consistent with our hypotheses. That is, compared to the control group, the moral self-esteem enhancement group showed stronger negative affect to the morally transgressive events, but less negative affect to the morally benign events. The statistical insignificance may be due to the ceiling effect in the moral transgressive situation and the floor effect in the moral benign situation. As demonstrated in previous studies, people were more sensitive to negative information in certain events, since such information may threaten survival more than the benefit of positive information could provide to the individuals. Therefore, in our current study, both priming group and control group participants could be sensitive enough to detect the negative information in morally transgressive events and respond with corresponding negative affective reactions. In the same way, for benign events, the negative information was not strong enough for both priming and control group participants.

Combined with both positive and negative affect, the moral self-esteem enhancement could make participants generate more polarized affective reactions when they made judgments of social events. More specifically, such polarized effects were mainly due to the change of positive affective reactions. When individuals faced morally transgressive social events, if participants were feeling good about their own moral self-esteem, the overall affective reaction will be more negative since the current social events derail them more from their expectations and their personal standard. Such discomfort in their affective reactions may play an important role when they made judgments later.

In the current study, the morally transgressive nature of the events were clear and unambiguous. Therefore, there was no difference in the judgments of the nature of these social situations. However, the affective reaction was sensitive enough to show the difference between the moral self-esteem priming group and the control group. Therefore, the enhancement of moral self-esteem made our participants become more cynical in their social judgments, when their morally transgressive nature is clearly defined.

However, in the real world, things are not always white and black with clear-cut differentiation. In many situations, people find that they face huge ambiguities when they try to make social judgments. In that case, individuals have to make judgments and inferences about the nature of the social events before they draw other conclusions. In ambiguous situations, individual's self-concepts would have an even stronger influence on people's social judgments than in clear situations, because when there is a lack of outside cues and criteria, individuals will refer more to their self-construal to make judgments. In our next two studies, we went further to explore such ambiguous situations, and how the enhancement of moral self-esteem would impact individuals' social judgments. Therefore, we are going to test the influence of moral self-esteem enhancement in ambiguous situations in Study 3.

3.3 STUDY THREE

In Study 2, we demonstrated that when individuals enhanced their moral self-esteem by recalling their previous moral actions, they would have more polarized affective reactions in their social judgments on those social events that had clear moral valance. In the current study, we wanted to investigate if the intention of the target people in a social event was not clear, how would the moral self-esteem enhanced participants make their social inference. As we postulated in the introduction, when individuals were in ambiguous social situations, they would look for more evidence and resources from their internal self-states to make social judgments. Therefore, when individuals had higher moral self-esteem, we postulated that they would tend to make more positive intention inferences so that such inferences could be consistent with their own moral self-concepts. In addition, people would also project their moral self-concepts onto the target people in social situations to make more positive social inference.

3.3.1 Experimental Design

Compared to the control group in which only the global self-esteem and the positive feeling were primed, we hypothesized that the moral self-esteem enhanced participants would be more positive when they were asked to make the intention inference in ambiguous situations. To test our hypotheses, we provided participants with three types of vignettes: (1) the ambitious intention vignettes – the intention of the characters in the scenarios could be interpreted from either a positive perspective or a negative perspective, such as:

“George and his project team were working on a business proposal for whole night. They had to give an important presentation to the company’s leading team in the morning to decide if their proposal will get approved. One hour before the meeting, George asked one of his assistants, Michael, to make copies of their proposal, and himself stayed in the office to do the final practice of the presentation. During the meeting, one manager pointed out that there was a cost-benefit calculation was not come from the normal procedure. George and his team didn’t pay a lot of attention to that since they followed the procedure in another similar case. Right then, Michael rushed in and brought some materials he had found from the internet to provide sufficient support to the calculation method they used. The leading team approved the proposal at the end. After the meeting, Michael told George that he had caught the problem while he making the copies, so he immediately went online and try to find a solution before the meeting. That’s why he did not have time to discuss the issue with George”;

(2) the benign intention vignettes – the intention of the character in the scenario could be interpreted only from a positive perspective without any ambiguity, such as:

“Mary joined a tour group that was organized by a traveling agency to the East Coast. After they finished the dinner at a restaurant, there were still a few minutes until the meeting time. So Mary decided to buy some cough drops in a near pharmacy because she had been sick. She spent a while choosing from different brands for the medicine. Finally, when she was in the checkout line, there were two customers in front of her. But also, she realized it was the meeting time already, and she saw other members from her tour group already waiting outside the restaurant. Mary was afraid to be late so she asked the two people in front her if

she could checkout first. The two customers agreed. Mary apologized and thanked to them, and returned to the group on time”;

and (3) the neutral intention vignettes – no specific intention of the character could be inferred from the scenarios, such as:

“Lily was looking for a nice dress to wear to her best friend’s wedding. She had been searching for a whole afternoon at Macy’s and finally spotted one she really liked. However, when she checked with the assistant, she was told there was only one left in her size but was just purchased by another girl. Lily felt so disappointed and was ready to leave, but the girl who bought the dress ended up return it to the store because she realized another size fits her better. After the girl left, Lily bought the dress immediately and wore it to the wedding”.

After reading each scenario, participants were asked to rate six statements, three of them were positive judgments, such as *“To what extent do you think Michael wanted to show his support to George”*; *“To what extent do you think Michael was happy to help”*; and *“If you were George, how many thanks will you give to Michael”*. The other three were negative judgments, such as *“To what extent do you think Michael was trying to make George embarrassed”*; *“To what extent do you think Michael was trying to show off”*; and *“If you were George, how much anger will you feel toward Michael”*. Appendix 4 listed all the six scenarios and the corresponding questions.

3.3.2 Participants and Procedures

Forty six undergraduate students and graduate students at UC Berkeley took part in the experiment for course credits. There were 16 males and 30 females. The average age was 19.91 years ($SD = 1.75$). The range was from 18 to 26 years old. There were 13 sophomore students, 9 junior students, 15 senior students, and 9 graduate students.

Participants were randomly divided into two groups: one was a moral self-esteem enhancement group; the other was a control group. After they signed the consent forms, they were asked to complete either the moral self-esteem enhancement priming task or the control task, which were the same as in Study 1. After the priming/control task, they were asked to read six intention judgment scenarios and rated the six statements after each scenario. In the end, the priming effects were checked by three probing questions described in Study 1, and demographic information was collected.

3.3.3 Results

3.3.3.1 Priming effect

The independent t-test showed that there was only a significant difference in the moral self-esteem index ($t = 2.61, p < .05$), and the priming group ($M = 0.94, SD = 1.96$) was significantly higher than the control group ($M = -0.83, SD = 2.52$). There was no significant difference on the pre-priming global self-esteem ($t = -.41, p = .69$), pre-priming moral identity symbolization ($t = -.11, p = .94$), pre-priming moral identity internalization ($t = -.92, p = .36$), pre-priming positive affect ($t = -.36, p = .75$), pre-priming negative affect ($t = .26, p = .80$), post-priming global self-esteem ($t = -.37, p = .71$), post-priming positive affect ($t = -.28, p = .78$), and post-priming negative affect ($t = .82, p = .41$).

These results indicated that after the moral self-esteem enhancement priming, only the moral related self-esteem was boosted in the priming group participants. In contrast, the global self-esteem and the positive/negative affect were still identical between the priming group and the control group. Therefore, if we discovered any difference in the intention reasoning pattern between the priming and control group in the following tests, we had enough confidence to infer that the differences were induced into the current study by the different levels of moral self-esteem.

3.3.3.2 Intention Reasoning in Ambiguous, Benign and Neutral Scenarios

To calculate the positive and negative intention inference in the scenarios, we summed the three questions measuring positive intention inference together to represent the positive intention inference; and summed the three questions measuring negative intention inference together to represent the negative intention.

Repeated-measurement ANOVA was conducted in each scenario. For the first ambiguous scenario – “*George giving a presentation*”, there was a significant main effect of the intention valance on the intention inference, $F_{(1, 44)} = 159.30$, $p < .01$, the overall positive intention inference ($M = 11.87$, $SE = .29$) were significantly higher than the negative intention inference ($M = 5.25$, $SE = .31$). In contrast, the main effect of the moral self-esteem enhancement priming was not significant, $F_{(1, 44)} = 1.16$, $p = .29$. Importantly, there was a significant interaction between the priming condition and the intention valance, $F_{(1, 44)} = 5.10$, $p < .05$. This indicated that how much positive or negative intention that could be inferred from the scenario by the participants was dependent on the moral self-esteem enhancement condition. The pairwise comparison (see Figure 3.3.1 left panel) showed that the moral self-esteem enhanced participants inferred significantly higher positive intention ($M = 12.69$, $SE = .42$) from the scenario than the control group participants ($M = 11.12$, $SE = .39$); whereas no significant difference was found on the negative intention inference between the enhancement group ($M = 4.81$, $SE = .46$) and the control group ($M = 5.68$, $SE = .43$).

For the second ambiguous scenario – “*Linda buying a camera*”, there was a significant main effect of the valance on the intention inference, $F_{(1, 44)} = 76.54$, $p < .01$, the overall positive intention inference ($M = 6.64$, $SE = .21$) was significantly lower than the negative intention inference ($M = 9.91$, $SE = .28$). In contrast, the main effect of the moral self-esteem enhancement priming was not significant, $F_{(1, 44)} = 0.04$, $p = .83$. Importantly, there was a significant interaction between the priming condition and the intention valance condition, $F_{(1, 44)} = 3.92$, $p < .10$. This indicated that how much positive or negative intention that could be inferred from the scenario was dependent on the moral self-esteem enhancement condition. The pairwise comparison (see Figure 3.3.1 right panel) showed that the moral self-esteem enhanced participants inferred significantly higher positive intention ($M = 7.05$, $SE = .31$) from the scenario than the control group participants ($M = 6.24$, $SE = .28$); whereas there was no significant difference on the negative intention inference between the enhancement group ($M = 9.57$, $SE = .42$) and the control group ($M = 10.24$, $SE = .38$).

Although there were some salient differences between these two ambiguous scenarios: participants tended to interpret George’s scenario from more positive perspective whereas they tended to interpret the Linda’s scenario from a more negative perspective, the interaction of these two cases showed a consistent pattern. Therefore,

we pooled these two scenarios together by summing the positive intention inference scores and negative inference scores from two cases. With the pooled measurement, we conducted the repeated-measurement ANOVA again. The differences between the valance of intention inference were reduced, but still significant, $F_{(1, 44)} = 21.34, p < .01$. The main effect of the moral self-esteem enhancement priming was still not significant, $F_{(1, 44)} = 0.51, p = .48$. However, the interaction between the priming condition and the intention valance became more significant, $F_{(1, 44)} = 6.78, p < .05$. Specifically, the moral self-esteem enhanced participants inferred significantly higher positive intention ($M = 19.77, SE = .61$) from the scenario than the control group participants ($M = 17.36, SE = .56$); but the moral self-esteem enhanced participants inferred significantly lower negative intention ($M = 14.38, SE = .72$) from the scenario than the control group participants ($M = 15.92, SE = .66$). Figure 3.3.2 showed the interaction between the moral self-esteem enhancement priming and the valance of the intention inference.

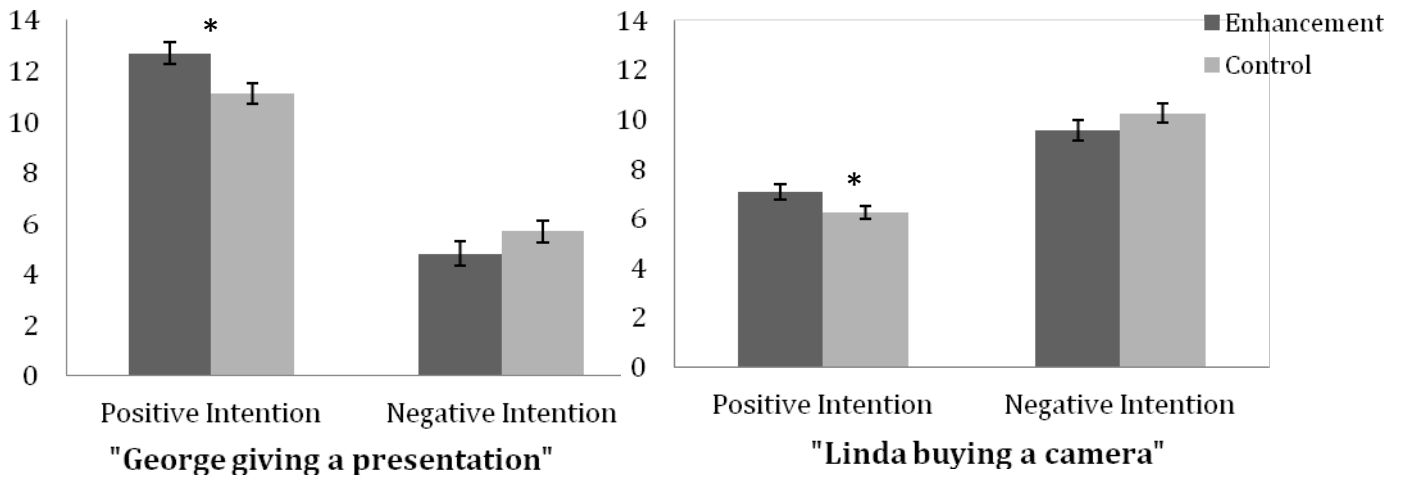


Figure 3.3.1 The interaction between moral self-esteem enhancement and positive/negative intention inference

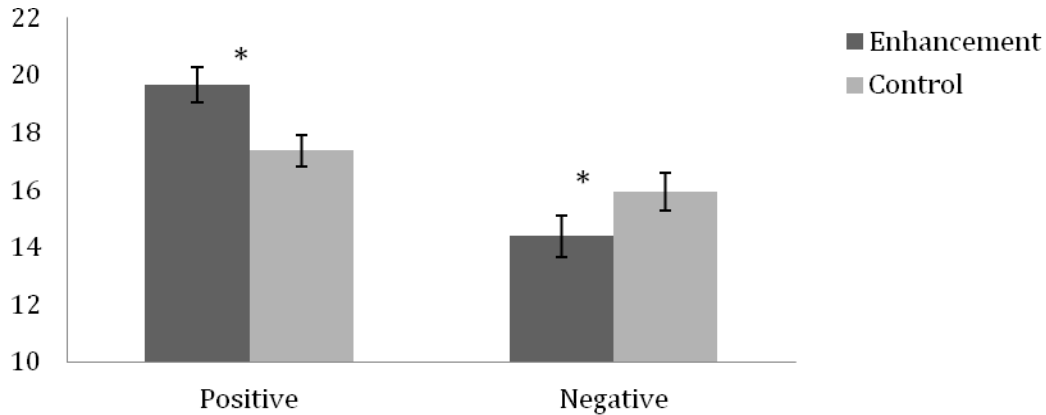


Figure 3.3.2 Ambiguous Scenario Intention inference

For the two benign intention scenarios, we also pooled the measurement of positive intention inference scores and negative inference scores from two scenarios respectively. The repeated-measurement ANOVA was conducted on the pooled scores. As we expected, there was only a significant main effect from the valance of intentions, $F_{(1, 41)} = 1210.00, p < .01$. Since the intention of the characters in the scenarios was obviously positive and without any ambiguity, the overall inference of positive intention ($M = 25.16, SE = .49$) were significantly higher than negative intention ($M = 6.90, SE = .20$). Neither the main effect of the moral self-enhancement priming ($F_{(1, 41)} = 1.70, p = .20$) nor the interaction between intention valance and the priming condition ($F_{(1, 41)} = .81, p = .37$) was significant. Figure 3.3.3 showed the significant main effect of the intention valance in the benign intention scenarios.

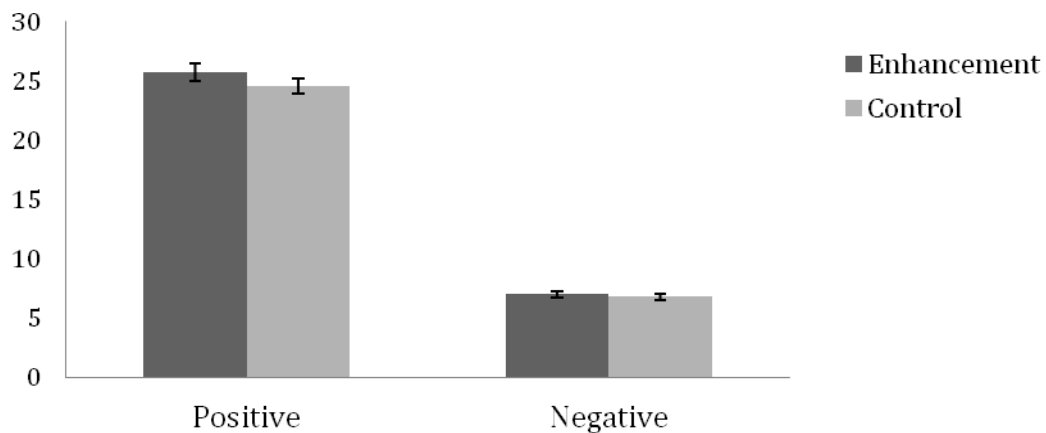


Figure 3.3.3 Benign Intention Scenario

For the two neutral intention scenarios, we reorganized the data as the first two conditions and ran the repeated-measurement ANOVA on the pooled scores. Same as the benign intention cases, the only significant main effect was from the valance of the

intentions, $F_{(1, 42)} = 234.39, p < .01$. Again, the overall inference of the positive intention ($M = 17.82, SE = .59$) was significantly higher than the negative intention ($M = 8.09, SE = .32$). Neither the main effect of the moral self-enhancement priming ($F_{(1, 42)} = .12, p = .73$) nor the interaction between the intention valance and the priming conditions ($F_{(1, 42)} = .08, p = .77$) was significant. Figure 3.3.4 showed the significant main effect of the intention valance in the neutral intention scenarios.

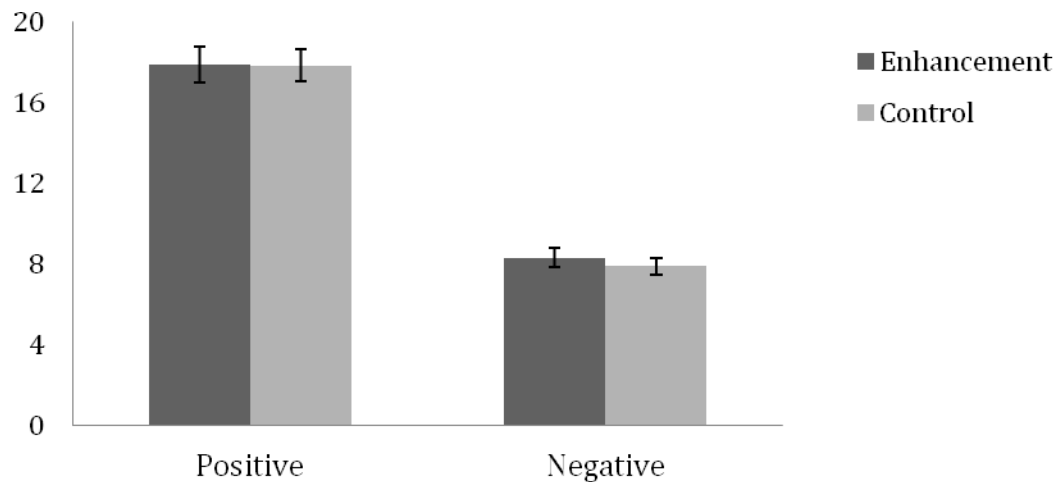


Figure 3.3.4 Neutral Intention Scenarios

3.3.4 Discussion

The results supported our hypotheses. In the ambiguous situations, participants in the moral self-esteem enhancement conditions made significantly higher positive intention inference than the control group participants. Meanwhile, the moral self-esteem enhancement participants also demonstrated lower negative intention inference. In addition, such differences only appeared in the ambiguous social events. When the intention of the social events were clearly positive or neutral, there was no difference between moral self-esteem enhancement participants and control group participants.

According to our previous theoretical analysis, there could be several factors that contributed to these results. One of the potential mechanisms was that the participants were looking for the information that could provide stronger self-consistency. Therefore, if the moral self-concept was enhanced by recalling previous moral behavior, the information relevant to the moral self would become more salient and more accessible to participants in that condition. Then, in the consequent social judgment task, it would be easier for them to detect such information. In addition, individuals with enhanced moral self-esteem would also be more acceptable to that positive moral information and be more aware of negative moral information, because they want to use the information from social events to maintain the integrity of their moral self-concepts. Therefore, from a classic cognitive information processing perspective, moral self-enhancement participants showed better recognition to the information that was relevant to their self-concept (Bower & Gilligan, 1979; Hull & Levy, 1979; Kuiper & Rogers, 1979; Markus, 1977b; Mueller, 1982; Mueller, Heesacker, & Ross, 1984; M. Ross & Sicoly, 1979; Schwarz, 1995; Wallen, 1942). They would be more sensitive to the information and

social cues that contained moral implications. In addition, they had more confidence to make attributions and social inferences in the moral-self domain. Another potential mechanism was that the participants were looking for the similarity in their social comparison, as well as making assimilation on it. Such a tendency could provide them a better chance to maintain their increased moral-self status.

In summarizing these potential mechanisms described above, the common crucial factor was that the moral self-enhancement participants had better accessibility to the information that was relevant to their moral self-concepts. Therefore, in our fourth study, we further explored the potential cognitive mechanism for the social judgments done by moral self-enhancement individuals.

3.4 STUDY FOUR

As we tested in Study 3, participants in the moral self-esteem enhancement condition tended to render more positive social judgments in ambiguous situations than those in the control condition. To demonstrate the potential mechanism of such a tendency, we postulated that when individuals' moral self-esteem was enhanced, they would be more sensitive to the information which had moral implications. They would also tend to seek for information that could help them maintain their moral self-concepts. The consequence of such a tendency was that individuals made more positive social judgments in ambiguous social situations to achieve consistency between their self-concepts and their judgments.

However, what remained unclear was that if moral self-esteem enhanced participants indeed became more sensitive to the information with moral implications, they could achieve such status from two different pathways: (1) from promotional perspectives, individuals would be more sensitive to the positive moral information, or perhaps, that information became more salient and more accessible in their mind. (2) From a prevention perspective, individuals would be more sensitive to morally negative information. They would be more alert to that information because it was deviant from their current self-status and could become a threat to their self-concepts. No matter from which perspective, the ultimate impact on individuals' social judgments was that they would take more positive standpoints to interpret those ambiguous situations they encountered. However, in the current study, we would conduct some cognitive measurements to explore in detail the mechanism behind the positive social inference.

3.4.1 Experimental Design

This experiment was 2x2x2 design ("moral self-esteem enhancement vs. control" by "moral implication stimulus vs. neural stimulus" by "positive words vs. negative words"). The moral superiority priming was a between-subject design, whereas the moral implication words and the valance of words were within-subject designs. The delay of reaction time was the dependent variable.

3.4.2 Participants and Procedures

Seventy three undergraduate students and graduate students at UC Berkeley participated in the experiment in exchange for course credits. Participants were randomly divided into two groups: one was the moral self-esteem enhancement priming group, the other was the control group. After they arrived at the lab, they were assigned to the moral self-esteem priming task or control task. After finished the priming task, they were asked to complete a stroop test.

The participants were told that they were going to take a color-naming experiment: on each trail, a "+" appeared on the center of the screen for 200ms to warn them that the stimulus would be showing. Then, an adjective word appeared on the screen. The participants were asked to name the color of the word appearing as quickly and as accurately as possible. The adjective stayed on the screen until the subject clicked the answer key. The reaction time and the accuracy were recorded by the Inquisit 3.0

software. After that, one second elapsed before the next adjective appeared. The first 15 trials at the beginning of the whole test were served as practice. In the real experiment, four colors were named: blue, green, purple, and red. The corresponding reaction key on the keyboard were “A, S, K, and L”. Participants used their left and right middle fingers and index fingers to press each of them. The colors were randomly assigned to the words. There were 20 moral implied words (10 positive and 10 negative) and 20 moral neutral words (10 positive and 10 negative) matched with frequency (Table 3.4.1). The sequences of presenting these words were randomly assigned, but each of them presented 4 times (160 trials in total). After every 40 trials, participants were given a short break. Then another 40 trails were completed. Appendix 4 showed the procedure of one trail in the stroop test.

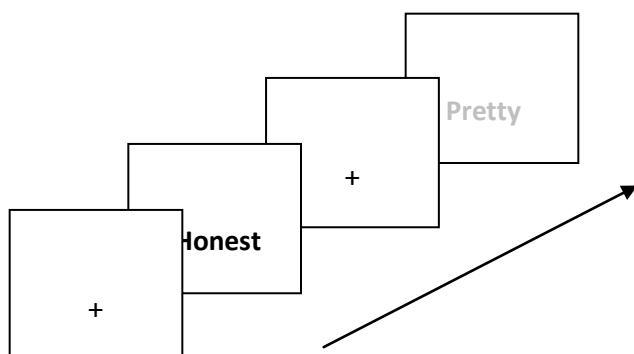


Figure 3.4.1 The procedure of the stroop test

After the color-naming task, the participants were probed for suspicion about the purpose of the experiment, demographic information was collected, and then were debriefed.

Since we needed to ensure that all the reaction time data were valid and accurate, we selected the data based on the following criteria: (1) If the reaction was wrong, then the reaction time of that trail was not counted into the calculation. (2) If there was any reaction time longer than 1600ms, the data from that participant were deleted. (3) If there were too many errors in one condition, saying, the accuracy was below 85% (3 items out of 20), the data of that participant were deleted. Therefore, we had 41 participants who satisfied the data selection criteria out of 78 reactions and entered the final analysis. For these 41 participants, there were 25 females and 16 males. The average age was 19.73 years old ($SD = 1.64$). There were 14 sophomore students, 9 junior students, 9 senior students, and 9 graduate students.

3.4.3 Results

3.4.3.1 Priming effect

The independent t-test showed that there was only significant difference in the moral self-esteem measurement ($t = 2.13, p < .05$), and the enhancement group ($M = 0.75, SD = 1.72$) was significantly higher than the control group ($M = -0.65, SD = 2.37$). There was no significant difference on the pre-priming global self-esteem ($t = 1.27, p = .21$), pre-priming moral identity symbolization ($t = 1.24, p = .22$), pre-priming moral identity internalization ($t = .17, p = .87$), pre-priming positive affect ($t = 1.05, p = .30$), pre-priming negative affect ($t = -.29, p = .78$), post-priming global self-esteem ($t = 1.33, p = .19$), post-priming positive affect ($t = .49, p = .63$), and post-priming negative affect ($t = .49, p = .62$). This indicated that after the moral self-esteem enhancement priming, only the moral related self-esteem was boosted in the priming group participants. But the global self-esteem and the positive/negative affect were still identical between the priming and the control group.

3.4.3.2 Reaction time on moral/neutral words

Repeated-measurement ANOVA was conducted to test the reaction time differences between the moral self-esteem enhancement group and control group participants. The main effect of the different priming conditions was not significant, $F(1, 39) = 2.00, p = .17$. The main effect of the word valance was not significant either, $F(3, 117) = .18, p = .91$. However, the interaction between the priming conditions and the word valance was very significant, $F(3, 117) = 2.74, p < .05$.

The pairwise t-tests showed that the difference between the moral self-esteem enhancement group and the control group contributed to the difference on negative moral implication words and the positive neutral implication words. For the words that had negative moral implications, moral self-esteem enhanced participants spent significant longer time in reacting ($M = 606.06, SD = 76.66$) than control group participants ($M = 570.34, SD = 49.63$), $t=1.80, p < .10$. For the words that had positive meaning but had no moral implication, moral self-esteem enhanced participants also took significantly longer time to react ($M = 604.57, SD = 65.97$) than the control group participants ($M = 568.07, SD = 52.65$), $t = 1.91, p < .10$. There was no significant difference between priming and control group on the words having positive moral implications ($t = 1.24, p = .22$) and negative words having no moral implication ($t = .47, p = .64$). Figure 3.4.2 showed the interaction and the differences on each type of words.

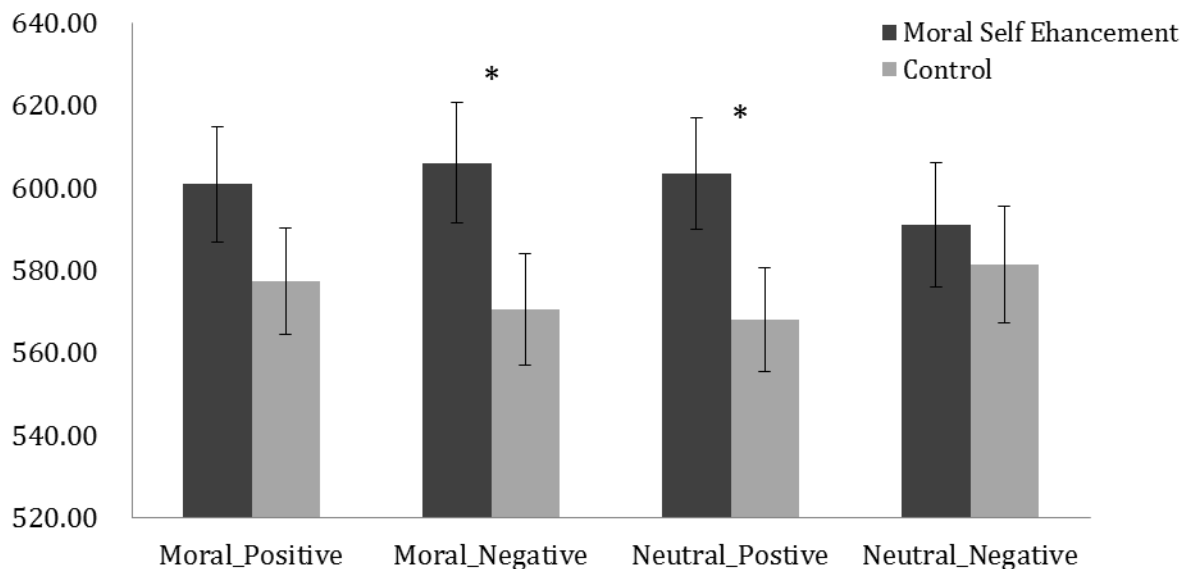


Figure3.4.2 Reaction Time Difference

3.4.4 Discussion

The interaction between the moral self-esteem enhancement priming and the valence of words showed the impact of those changes in people's moral self-concept on their cognitive reaction to the information around them. Generally, the results supported our hypothesis that the information with moral implication became more salient to those moral self-esteem enhanced individuals. More specifically, the significance only appeared with the words that had negative moral implication, which was consistent with our hypothesis from the prevention perspective: individuals would be more sensitive to morally negative information. Such negative information was not consistent with their moral self-concepts. Moral self-esteem enhanced participants might take more energy to repress that information in their minds. On the one hand, such repression paradoxically made this information more salient in people's working self-concept, and made them take longer to respond in the cognitive test. On the other hand, at the behavioral level, they would consciously avoid such information in their social judgment to maintain consistency with their enhanced moral self.

Another finding fell beyond our expectations: there was significantly longer reaction time on neutral positive words for the moral self-esteem enhancement participants. As we demonstrated in Study 1, participants in the priming condition and control condition demonstrated similar global self-esteem and positive/negative affect. We argued that individuals with enhanced moral self-esteem probably got extra positive self-enhancement by the positive self-evaluation on moral domain. Therefore, they showed stronger sensitivity on the positive information in their social situations, which was not necessarily related to the moral domain. Overall, the sensitivity to morally implicated information provided a potential mechanism for our findings in Study 3.

4. CHAPTER FOUR: GENERAL DISCUSSION

4.1 Theoretical and practical implications

In the current dissertation study, we conducted a serial of experiments to enhance participants' moral self-esteem and test the different influences of moral self-esteem enhancement on social judgments when the social situations had clear or ambiguous intentions. This dissertation contributed to the theoretical and practical field of moral self-concept study in several different ways.

First of all, based on the result of our first study, we demonstrated the dynamic and multifaceted nature of self-concepts. By verifying the nature of self-concept, we provided a tested method to manipulate individual's moral self-esteem concepts. By simply recalling their previous moral behaviors, our results showed that individuals could boost their moral self-regard dramatically, compared to those who were asked to recall a pleasant trip. We must emphasize the importance of the control group here. Although previous research had demonstrated the multifaceted character of self-concept, in practical manipulation, it was hard to distinguish the different parts of moral self-esteem enhancement by a single priming task. Therefore, it is crucial to include a control group to provide a baseline for comparison. Based on our study results, the priming of moral self-esteem could not only increase moral self-regard, but could also boost overall self-regard and positive affect. Therefore, it is important to make comparisons between moral self-esteem priming participants and control group participants (the baseline). By examining the difference between the moral self-esteem enhancement group and baseline group, it is possible for us to separate the unique impact from the enhancement of moral self-concept.

After verifying the manipulation method of moral self-esteem, we further tested the influence of moral self-esteem enhancement on social judgments for three different perspectives: the affect reactions, the attributions, and the cognitive mechanism. All these three perspectives provided convergent conclusions on the importance of moral self-concepts in social judgments. The main insight was that individuals were looking for the consistency between their social judgments, either emotionally or cognitively, and their moral self-concept.

When the social intentions were clear in the social situations, individuals would vary their affective reactions to seek for consistency between the enhanced moral self-concept and social judgment. Their affective reaction became more polarized to positive and negative social scenarios: with more positive affective reactions to positive social scenarios and more negative affective reactions to negative social scenarios. This was because the positive social scenarios were more consistent with their boosted moral self, therefore they responded more positively to those social situations. In contrast, negative social situations went against their moral self-concept, therefore, they responded even more negatively compared to the control group. Overall, the consistency between moral self-concept and social judgments was the crucial determinative factor in this study. Such polarized affective reactions provided the evidence that individuals would assimilate the information that was consistent with their moral self-construal but contrast the information against their self-construal. Since there was no ambiguity in the nature of social events that were either a moral transgression or a morally benign

event, individuals with enhanced moral self-esteem could not change their interpretation cognitively but had to intensify their affective reaction to the events. Therefore, they would respond more negatively to moral transgressions but more positively to the morally benign situation.

The findings also potentially solve the ostensible conflict between the results on moral self-enhancement and moral actions. If the enhancement of moral self-concept increased the polarization of affective reactions, participants could give harsher judgments according to their stronger negative affect to moral transgressions. However, if other factors (such as cleansing the hand) reduced the negative affect reaction, participants may decrease the severity of their moral sanctions. From practical perspective, this pathway of the influence of moral self-esteem could bring more negative influence to the social interaction. With intensified affective reactions, individuals tended to be more rigid and biased in their social judgment. Such polarized affective reaction provided a potential explanation of why individuals might render harsher moral judgments when their self-image was boosted by physical cleanliness (Zhong et al., 2010).

When the social intentions were not clear in ambiguous social situations, individuals may first look for the consistency between their moral self-concept and social judgment for attribution perspective, that is, they would make different interpretations of the ambiguous social situations. The ambiguity of the social events provided individuals a different pathway to express the influence from the enhancement of moral self-esteem. In such situations, people would seek for the consistency between their self-concepts and their cognitive intention inference. The moral self-esteem enhanced participants would be more sensitive to the positive moral implications in the ambiguous situations and make more positive attributions.

In addition, from the cognitive perspective, our experiments further demonstrated that such tendencies might be driven by the cognitive bias in the information processing process. The moral self-esteem enhanced individuals would be more sensitive to the information that contains negative moral implications. Therefore, they might show more avoidance in their perception and interpretation in their social judgments. In general, whether from the attribution aspect or from the cognitive information processing aspect, our current research demonstrated that individuals were always looking for consistency in their social judgments and their on-time moral self-concept. This pathway of the influence from moral self-esteem enhancement actually provided some positive influence on social judgments. When the situations were ambiguous, if individuals could boost their moral self-esteem, they might become more positive and optimistic in their social interactions.

The results of current studies also provided us with a lot of insights regarding moral identity research and moral personality research. Both moral identity theories and moral personality theories emphasized the chronic influence of moral self traits in the individual's social life. Our findings in the current dissertation shed some new light on this domain and argued that the moral self could fluctuate dramatically according to situational factors. Therefore, those situationally specific factors may play an important role as a moderator when researchers try to explain the relationship between moral identities and moral actions, or between moral personalities and moral actions.

4.2 Limitation and future directions

Although the results of the current research provided interesting insights for the moral self-esteem and social judgment study, there were a lot of limitations for the current study that need further investigation. First of all, the enhancement of moral self-esteem was based on the comparison with the control group. With the method we applied in the current study, it was hard for us to manipulate moral self-esteem independently from other self-concept components. Therefore, we have to be very careful when we were interpreting the results from the priming effect, since there might be some confounding influence from the increase in overall self-esteem or positive affect. Second, all the social judgments were made on the hypothetical social scenarios. While such methods were used widely in the research domain about social judgments, the results were limited because individuals might behave differently when they were facing real social judgment situations. More behavioral studies in real social setting can be done in the future to test the conclusion of current studies in the future. Third, in the ambiguous social scenarios, we mainly compared the ambiguous social situations with positive social situations. However, another important comparison omitted in the current study was the comparison between ambiguous social situations and positive social situations. Since negative information has strong adaptive implications in social life, individuals may behave differently in those social settings. Finally, the samples of current study were limited to UC Berkeley college students. Their education background, social cultural experience could all shape their social judgment patterns dramatically, especially for the judgments regarding moral issues. Therefore, more studies with diverse demographic samples need to be done before we could generalize our findings in the current study.

In addition, there were still many questions left to be answered in the future. For example, the cultural variables were not considered in the current study. The cultural influence might come from two different directions. On the one side, the effect of the moral self-esteem enhancement may be influenced by cultural variance dramatically. There have been many studies demonstrating how the self-concept could be interact with cultural variables (e.g., Chang, Asakawa, & Sanna, 2001; English & Chen, 2011; Heine, Lehman, Markus, & Kitayama, 1999; Heine et al., 2001; Heine, 2005) On the other side, the moral judgments were culturally dependent as well (e.g., Shweder, 1982; Miller & Bersoff, 1992, 1992b; Haidt, Koller, & Dias, 1993; Chiu, Dweck, Tong, & Fu, 1997). Therefore, the cultural impacts on the findings from the current study could provide directions for future work.

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Appendix 1

Moral identity measurement (Aquino & Reed, 2002)

Moral characteristics (9): **caring, compassionate, fair, friendly, generous, hardworking, helpful, honest, kind**

Listed below are some characteristics that may describe a person [list of nine traits]. 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, answer the following questions.

Symbolization:

1. I often wear clothes that identify me as having these characteristics.
2. The types of things I do in my spare time (e.g., hobbies) clearly identify me as having these characteristics.
3. The kinds of books and magazines that I read identify me as having these characteristics.
4. The fact that I have these characteristics is communicated to others by my membership in certain organizations.
5. I am actively involved in activities that communicate to others that I have these characteristics.

Internalization:

6. It would make me feel good to be a person who has these characteristics.
7. Being someone who has these characteristics is an important part of who I am.
8. I would be ashamed to be a person who has these characteristics. (R)
9. Having these characteristics is not really important to me. (R)
10. I strongly desire to have these characteristics.

Appendix 2

Global self-esteem

How good do you feel about yourself at this moment?

1.....2.....3.....4.....5.....6.....7

Very negative Neutral Very positive

Appendix 3

Positive Affect (Waston, Clark, and Tellen, 1988)

The PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent [INSERT APPROPRIATE TIME INSTRUCTIONS HERE]. Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely
___ interested			___ irritable	
___ distressed			___ alert	
___ excited			___ ashamed	
___ upset			___ inspired	
___ strong			___ nervous	
___ guilty			___ determined	
___ scared			___ attentive	
___ hostile			___ jittery	
___ enthusiastic			___ active	
___ proud			___ afraid	

We have used PANAS with the following time instructions:

Moment (you feel this way right now, that is, at the present moment)

Today (you have felt this way today)

Past few days (you have felt this way during the past few days)

Week (you have felt this way during the past week)

Past few weeks (you have felt this way during the past few weeks)

Year (you have felt this way during the past year)

General (you generally feel this way, that is, how you feel on the average)

Appendix 4

Word list in Stroop Test

Moral_Positive	Moral_Negative	Neutral_Positive	Neutral_Negative
CONSIDERATE	DISGRACEFUL	EFFORTLESS	UNSUITABLE
ALTRUISM	REPUGNANT	SKILLFUL	INHIBITED
TRUSTWORTHY	DESPICABLE	AFFECTIONATE	UNLUCKY
VIRTUOUS	SLEAZY	INGENIOUS	SARCASTIC
COMPASSIONATE	SHAMELESS	HILARIOUS	ILLITERATE
RESPECTABLE	HYPOCRITICAL	OUTGOING	CHILDISH
CHARITABLE	VILE	STYLISH	INEXPERIENCED
HONORABLE	DEGRADING	IMAGINATIVE	SLUGGISH
FAITHFUL	DISHONEST	FERTILE	INCOMPETENT
LOYAL	DECEPTIVE	ENERGETIC	DISCOURAGED
NOBLE	SHAMEFUL	CLEVER	STRESSFUL
BRAVE	GREEDY	NEAT	INCONSISTENT
GENEROUS	IRRESPONSIBLE	INNOVATIVE	NOISY
DECENT	SELFISH	OPTIMISTIC	FOOLISH
ETHICAL	VICIOUS	CONSCIOUS	USELESS
DEVOTED	CHEATING	QUALIFIED	DULL
INNOCENT	CORRUPT	SOPHISTICATED	BORING
PURE	CRUEL	EFFICIENT	LONELY
HONEST	UNFAIR	ATTRACTIVE	ANXIOUS
PROPER	EVIL	ACCURATE	UGLY