SOCIAL DESIRABILITY AT WORK
A NEW LOOK AT WHO DOES IT AND ITS CONSEQUENCES
FROM A GOAL DRIVEN APPROACH

CHIA TSE MIN SHERWIN IGNATIUS

NANYANG BUSINESS SCHOOL

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Dedicated to the memory of my father, Robert Chia Ah Bah
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ABSTRACT

In this dissertation, a goal-driven approach was used to study socially desirable responding and self-verification. This dissertation proposed that the way individuals regulate their goal pursuit or regulatory mode can affect how much individuals engage in socially desirable responding or self-verification and that this relationship operates through the need for cognitive closure. Also, it was proposed that these effects explain citizenship behaviors, which are important to performance in organizations. Five studies were conducted to test the proposed relations, of which four studies were used to test the relationships of regulatory mode on the two components of socially desirable responding and self-verification. Both survey and behavioral measures were utilized to test these relationships. The last study explored the regulatory mode-citizenship behavior link. Overall, the findings suggested that individuals high in locomotion mode (locomotors) who want to get things done tend to be decisive and believe in the positive characteristics about themselves. Individuals high in assessment mode (assessors) who want to get things done right tend to be consistent in their self-concept. At work, locomotors believe that they have positive characteristics and are inclined to impress others which lead them to effect changes in organizations (challenging citizenship behaviors) and help their coworkers (affiliative citizenship behaviors) respectively. In contrast, assessors tend to engage in challenging citizenship behaviors only. These findings can bridge research in socially desirable responding and self-verification, as well as, address the issue of faking in personnel selection and placement from a new goal-driven perspective of regulatory mode.
CHAPTER 1 INTRODUCTION

The organization is a complex social phenomenon, where employees have to coordinate their actions to meet organizational goals (March & Simon, 1958). Some actions are enforced, while others are discretionary (Bateman & Organ, 1983). All employees have some goals they have to meet, and the way they pursue their goals can affect their relationships with their managers, coworkers and clients through the way these employees present themselves. Employees can either try to present themselves in a manner that is consistent with their self-concept or they can present themselves in a favorable manner. When employees adopt the former strategy, they engage in self-verification (Swann, 1983). When employees adopt the latter strategy, they engage in socially desirable responding (SDR) (Holden & Passey, 2009).

Past research on SDR and self-verification have used either a person- or a situation-driven approach. In my dissertation, I depart from these two approaches and focus on the tendency to engage in SDR or self-verification from a goal-driven perspective, namely in the self-regulatory effects of goal pursuit. I also investigate a possible mediating mechanism (i.e., need for cognitive closure) for the effects of goal pursuit style on SDR and self-verification. Finally, I use my proposed framework to illuminate the motivational antecedents of citizenship behaviors, an important work behavior that is known to influence performance. In short, my research questions are:

\textit{RQ1: How does the self-regulation of goal-pursuit affect socially desirable responding?}

\textit{RQ2: How does the self-regulation of goal-pursuit affect citizenship behavior?}

For \textit{RQ1}, I propose that both SDR and self-verification are affected by the way individuals regulate their goal pursuit. I also propose that the need for cognitive closure can
be one of the mediating mechanisms. For RQ2, I propose that individuals’ regulation of goal pursuit may affect how individuals build relationships and make changes to their workplace environment (i.e., citizenship behaviors). I further propose that this effect runs through SDR. I investigate these relationships in the five studies reported in this dissertation.

In this chapter, I will briefly describe the relevant research that has motivated my dissertation. First, I will briefly review some outstanding issues in the research literature on SDR and self-verification. Next, I will discuss some theoretical connections between SDR and self-verification. Subsequently, I will briefly discuss the issues of SDR in citizenship behaviors. Finally, I will conclude this chapter with the contributions of this dissertation.

This dissertation is organized into the following chapters. Chapter 2 will review the relevant constructs in this dissertation and postulate the relationships among them. Subsequently, I will present each study separately in Chapters 3 to 7. Finally, I will close this dissertation by discussing the significant findings in Chapter 8.

ISSUES IN SOCIA LLY DESIRABLE RESPONDING AND SELF-VERIFICATION

SDR has been a major concern in organizational research and psychology. In organizational research, SDR has been traditionally treated as a source of response contamination, particularly in the area of personnel assessment and selection (Holden & Passey, 2009). Recruiters may use psychological instruments to select job candidates to predict their future job performance. For example, recruiters assess candidates for personality traits such as conscientiousness because these traits are linked to job performance (Barrick & Mount, 1991). Since recruiters prefer individuals with these personality traits, job candidates may fake their responses to psychological measures, giving socially desirable answers to the items (Barrick & Mount, 1996). Therefore, this type of response contamination can reduce the ability of such psychological measures to accurately select and
place personnel into appropriate roles, and may instead penalize potential employees who give honest responses (Ellingson, Sackett, & Hough, 1999). This has led researchers to label SDR as a response style.

However, other research in psychology has shown that SDR is an interpersonal style that is associated with important well-being outcomes (Holden & Passey, 2009). For example, self-enhancement which is one component of SDR is associated with better mental and physical health (Taylor & Brown, 1988; Taylor, Lerner, Sherman, Sage, & McDowell, 2003a, 2003b). Furthermore, measures on hopelessness reliably predict suicidal tendencies despite being strongly correlated with SDR (Holden & Mendonca, 1984; Linehan & Nielsen, 1981, 1983; Nevid, 1983). These researches suggest that SDR could serve some psychological functions. In other words, SDR has some substantive psychological content.

These findings have led to some debates. One major debate is in the area of personnel selection and placement (for a review, see Holden and Passey (2009)). One research stream has investigated the extent to which people fake their responses in personnel assessment measures. This has led researchers to term SDR as a response style. Advocates of SDR as a response style posit that people exhibit SDR because of their instrumental value: job candidates who exhibit SDR in personnel assessment measures may be able to secure job offers from organizations with their faked responses. Thus the traditional view is that SDR is a strategy to deceive others. Thus, results from this investigation have led some researchers to propose that social desirability is a source of artifact that needs to be removed to “improve” the quality of personnel assessment measures (Goffin & Christiansen, 2003; Nederhof, 1985), and others to question whether this adjustment is necessary (Ones, Viswesvaran, & Reiss, 1996). Another research stream has investigated on the psychological significance of SDR (Paulhus, 1998, 2002). These researchers argue that SDR is an interpersonal style that has implications on psychological health and general well-being.
Despite the research on SDR as an interpersonal style, the traditional view of SDR as deception is still influential in management research (e.g., Bolino, 1999; Bolino, Michele, Turnley, & Gilstrap, 2008; Bolino & Turnley, 1999; Jones & Pittman, 1982). This is because human resource practitioners still place a lot of emphasis on personnel assessment measures that helps to predict future job performance (Ones et al., 1996) and not obtaining honest responses from job candidates may reduce this predictive value which can be costly for organizations. However, if SDR does indeed serve some psychological functions, removing such variance may also remove important individual differences that predict meaningful behaviors and outcomes.

Another related body of work is in the area of social psychology which focuses on the advantages and disadvantages of engaging in either SDR or self-verification. Research on SDR conceptualized SDR as a psychological factor underlying well-being. For example, individuals who engage in self-enhancement seem to have better mental and physical health (Taylor & Brown, 1988; Taylor et al., 2003a, 2003b). However, research on self-verification have suggested otherwise, noting the negative well-being consequences of having an unrealistic, inflated socially desirable self-image. For example, engagement in socially desirable behaviors tend to have negative long-term psychological outcomes (Colvin, Block, & Funder, 1995). In terms of performance, people who self-verify may outperform those who are engage in socially desirable behaviors (Y.-h. Kim, Chiu, & Zou, 2010).

In short, there are mixed views on the nature and consequences of SDR. On one hand, SDR appears to be dysfunctional. SDR can contaminate personnel assessment responses leading to poor placement in hiring process. On the other hand, SDR seems to be functional. SDR may lead individuals to feel good about their selves. However, having a false illusion of one’s positive image may not be advantageous. For example, the self-verification literature suggests that being true to one self may help one to gain appropriate
insight and result in a better performance. Therefore, probing the motivational foundation of SDR and self-verification may help to clarify the nature of these self-processes. This may also lead to more understanding on the antecedents of SDR and self-verification.

Past research on the antecedents of SDR has generally concentrated on personality and situational variable. In personality, some research has investigated the associations between SDR and Agreeableness, which is one dimension of the Big Five personality traits (Graziano & Tobin, 2002). Situational variables, such as high versus low stakes testing, have found to be related to the magnitude of SDR (Paulhus, Bruce, & Trapnell, 1995; White, Young, & Rumsey, 2001).

While personality research on SDR provides a static perspective that only certain personality traits are more prone to engage in SDR, research on situational variables of SDR provide a more dynamic perspective on the circumstances that promote SDR. However, there lies a research gap in understanding the motivations to engage in SDR or self-verification. To fill this gap, I take a goal-driven approach to understand the reasons behind SDR and self-verification by using regulatory mode theory. Regulatory mode theory describes how people self-regulate to achieve their goals. The engagement of SDR or self-verification may be functional for individuals to achieve their goal for different modes of self-regulation (Snyder, 1993). Thus, I propose that people engage in SDR or self-verification may be due to the way they regulate their goal pursuit. Putting simply, depending on whether the individual’s dominant goal is to reach a goal quickly or accurately, the individual may be more or less inclined to engage in SDR or self-verification.
ISSUES OF SOCIALLY DESIRABLE RESPONDING IN CITIZENSHIP BEHAVIORS

I also propose that this goal-driven approach may help to further understand an important organizational behavior phenomenon, citizenship behaviors. Citizenship behaviors are important for organizations because these behaviors are known to be linked to individual and organizational performance (N. P. Podsakoff, Whiting, Podsakoff, & Blume, 2009). Most research on the antecedents of citizenship behaviors have focused on job attitudes and personality (Bolino, 1999; Organ & Ryan, 1995; Penner, Midili, & Kegelmeyer, 1997; Spitzmuller, Van Dyne, & Ilies, 2008). However, emerging research has begun to investigate the engagement of citizenship behaviors as an attempt to impress others (Bolino, 1999; Fandt & Ferris, 1990; Grant & Mayer, 2009; Rioux & Penner, 2001).

Rioux and Penner (2001) identified three motives in performing citizenship behaviors: prosocial values, organizational concerns and impression management. The impression management motive suggests that the performance of citizenship behaviors is self-serving, as oppose to selfless acts which prosocial values and organizational concerns motives suggest. As Bolino (1999) suggested, the reasons why employees engage in citizenship behaviors for prosocial and organizational concerns motives are because they are good soldiers who try to look out for their fellow compatriots and organizations. However, those who engage in citizenship behaviors for impression management motives are good actors trying to impress others and serve their own goals.

Thus, SDR can also be a concern in the evaluation of citizenship behaviors because impression management is a component of SDR (Paulhus, 1984). However, the research on citizenship behaviors views impression management as a self-presentation motive to avoid bad reputation and to deceive others (Jones & Pittman, 1982), which suggests that people fake to get what they want. This dissertation suggests that the performance of citizenship
behaviors is not merely faking but it is because the performance of citizenship behaviors psychologically and instrumentally supports the way people pursue their goals. Taking this goal-driven perspective can deepen our understanding of self-regulatory effects of goal pursuit on SDR and the performance of citizenship behaviors.

SUMMARY OF CONTRIBUTIONS

This dissertation contributes to knowledge in several ways. This dissertation connects several seemingly unrelated research literatures, linking regulatory mode to SDR, self-verification and citizenship behaviors. Regulatory mode as a goal-driven approach may help to clarify the nature and psychological functions of SDR and self-verification. Results from the present research will help to highlight who and for what reasons they will give socially desirable responses in personnel selection and placement. The relative tendency to engage in SDR or self-verification depends on the individuals’ habitual self-regulatory mode. That is, not everyone is motivated to “fake”. While one form of regulatory mode orients individuals to appear socially desirable, another form can prime one to self-verify. These results call for future research into the dynamic understanding of the relationship between regulatory mode and the psychology of self.

Finally, the present research extends past research on the relationship between SDR and citizenship behaviors by illustrating, how citizenship behaviors motivated by SDR originates from the individuals’ habitual way of pursuing personal goals.
CHAPTER 2: THE RELATIONSHIPS BETWEEN REGULATORY MODE, SOCIALLY DESIRABLE RESPONDING, SELF-VERIFICATION, NEED FOR COGNITIVE CLOSURE AND CITIZENSHIP BEHAVIORS

In this chapter, I will first discuss the relationship between regulatory mode, SDR and self-verification. Subsequently, I extend this relationship to citizenship behaviors. For the relationship between regulatory mode, SDR and self-verification, I will first elaborate on the direct effects before describing the need for cognitive closure as a potential mediator.

For the direct effects of regulatory mode on SDR and self-verification, I postulate that SDR is a basic interpersonal process that is intimately connected to one’s goals pursuit habits. I will begin by first clarifying the terms used in SDR and then describing some of the relevant concepts in SDR and self-verification. Subsequently, I will describe the concept of regulatory mode.

There is considerable confusion in the use of terms such as self-presentation and impression management in the literature. For example, self-presentation has been labeled as impression management (Leary & Kowalski, 1990) which is one component of SDR. The other component is called self-deception enhancement. To avoid confusion in terminologies in the current research, I use self-presentation and impression management interchangeably, and use self-deception enhancement and self-enhancement interchangeably. This usage is consistent with the view that self-enhancement and impression management are strategies for enhancing oneself intrapersonally and interpersonally respectively.

CONCEPTS IN SOCIALLY DESIRABLE RESPONDING

SDR is the tendency to rate oneself positively (Holden & Passey, 2009). It consists of two components: Self-deception enhancement and impression management (Paulhus, 1984). Self-deception enhancement refers to the tendency to describe oneself in an overly positive
but honest manner, whereas impression management refers to the tendency to make oneself appear more appropriate to others.

Recent research on SDR has revealed the presence of two behavioral biases: egoistic bias and moralistic bias (Paulhus, 2002; Paulhus & John, 1998). Individuals with an egoistic bias exaggerate their self-worth in terms of their social and intellectual competence, and view themselves as superheroes. A manifestation of egoistic bias is self-deception enhancement. In contrast, individuals with a moralistic bias exaggerate their character in terms of virtues, and view themselves as saints. A manifestation of moralistic bias is impression management. Egoistic and moralistic biases are also related to the two motives of self-presentation: self-glorification (Schlenker & Weigold, 1992) and pleasing the audience (Baumeister, 1982). For example, people self-glorify by feeling good and looking good. Feeling good is related to self-enhancement, while looking good and pleasing the audience are related to impression management.

According to Paulhus and John (1998), egoistic bias and moralistic bias may result from the values of agency and communion respectively. Agency refers to “the positive value placed on individuality, personal striving, growth and achievement” and communion refers to “the positive value placed on relationships, intimacy and benefiting others, even the society as a whole” (Paulhus & John, 1998, p. 1039). Therefore, this led people to engage in self-enhancement and impression management respectively.

Based on these concepts, SDR appears to be associated to important concepts that are associated with psychological health and general well-being. For example, both self-enhancement and impression management are related to self-esteem, self-identity, and self-determination. In the literature on self-esteem, self-esteem consists of self-competence and self-liking (Tafarodi & Swann, 1996). Self-competence refers to “feelings of being competent, efficacious, and agentic” (Bosson & Swann, 1999, p. 1230), and is related to self-
enhancement. Self-liking refers to “feelings of being loved, likable and socially worthy” (Bosson & Swann, 1999, p. 1230), and is related to impression management.

In self-identity literature has distinguished between personal and relational self-concepts (Brewer & Gardner, 1996). One’s personal self-concept builds on agency values, which relates to self-enhancement, whereas one’s relational self-concept builds on perception of one’s values in the community, and relates to impression management.

In addition, two of the three fundamental needs in self-determination theory (Ryan & Deci, 2000), are closely connected to the two facets of SDR. Need for competence coheres with self-enhancement and need for relatedness coheres with impression management. Likewise, the self-presentation literature emphasizes that people need self-worth and moral-worth (Jones & Pittman, 1982), which relates to self-enhancement and impression management respectively.

Thus, consistent with my view that SDR is a basic interpersonal style with important well-being consequences, past studies show that social desirability is associated with psychological health benefits. For example, Taylor and Brown (1988) reviewed pertinent past research and concluded that self-enhancement is associated with psychological well-being. Roth, Synder and Pace (1986) found that presenting a favorable self-image enhances self-esteem. Linehan and Neilsen (1981, 1983) research on hopelessness and suicidal behavior showed that individuals who report higher SDR are less likely to feel hopeless (correlations ranged from -.49 to -.73) and have lower levels of suicidal behaviors. Gravdal and Sandal (2006) also found that SDR is associated with fewer reports of health issues.

Moreover, SDR confers instrumental purpose. In the literature on self-presentation, people engage in self-promotion to gain respect and admiration for being competent, and in exemplification to gain respect and admiration for integrity (Jones & Pittman, 1982). The former behaviors and their attendant motivation are related to self-enhancement and the latter
behaviors and their attendant motivation are related impression management. In the SDR literature, the values of agency (which support self-enhancement) and communion (which support impression management) are often associated with values for “getting ahead” and “getting along” respectively (Hogan, 1983; Paulhus & John, 1998).

In the same vein, Goffman (1959) considered impression management to be important because it helps individuals to succeed in obtaining their valued goals. Baumeister (1982) suggested that self-presentation can serve the purpose of obtaining rewards and self-fulfillment. Gardner and Martinko (1988) contended that impression management can lead to many rewards and benefits, such as interview success, preferential treatment and personal success. Holden and Passey (2009) also found that SDR in personnel assessment measures may aid organization entry.

Thus, these literatures suggest that SDR is psychologically important for one to feel competent and feel loved, and is instrumentally important for one to get ahead and get along. I propose that this is related to one mode of self-regulation in goal pursuit.

CONCEPTS IN SELF-VERIFICATION

In contrast to SDR, self-verification researchers hold that individuals do not always want to think positively about themselves, but try to behave consistently with their self-view (Swann, 1990) and seek subjectively accurate feedback about their self-view (Swann, Pelham, & Krull, 1989). This is because these individuals want to believe in a predictable and controllable world (Swann, 1990).

According to the self-verification theory, people engage in self-verification for pragmatic (interpersonal) and epistemic (intrapsychic) reasons (Swann, 1990; Swann et al., 1989). The pragmatic reasons stem from the recognition that people want to be maintain a consistent identity in front of their social partners to gain acceptance and to manage social
interactions. The epistemic reasons are that having a stable self-concept, be it positive or negative, can be a source of assurance for the self and also provide individuals with confidence in the face of uncertainties. The motive of self-verification is to “maintain their self-concept which may lead them to maximize information value” (Swann, 1990, p. 429). Self-verifiers feel motivated to seek feedback to confirm their self-view, be it positive or negative. Self-verification seems to be related to several proposed motives of self-presentation in the literature: Self-consistency and self-authentication (Schlenker & Weigold, 1992) and self-construction (Baumeister, 1982). Overall, people engage in self-verification because they desire an accurate perception about their self-concept.

Self-verification helps individuals meet the fundamental epistemic needs of certainty and control. In the literature on decision-making, people find certainty comforting. They are unwilling to give up a sure outcome at the expense of a potentially more profitable outcome (Kahneman & Tversky, 1984). In the literature on trust, predictability has been identified as a major component of trust (Rempel, Holmes, & Zanna, 1985). The self-determination theory also posits that individuals have a need to have control over their own actions (Ryan & Deci, 2000). Thus, it is important for individuals to feel that they have control and certainty, and self-verification offers a sense of control and certainty to the individuals.

Self-verification has other psychologically benefits. For example, Adyuk, Grurak, Akinola and Mendes (2013), and Swann, Griffin, Predmore and Gaines (1987) showed that self-verification could lower anxiety. Jones and Pittman (1982) noted that under some occasions, such as being in an intimate relationship, having integrity and being authentic are necessary and individuals are expected to reveal their authentic selves. Shimizu and Pelham (2004) found that self-verification can lead to improved health for individuals with low self-esteem. Swann, De La Ronde, and Hixon (1994) showed that self-verification is positively associated with relationship quality in married couples.
Self-verification also has instrumental values in the organization. Accurate feedback provided to employees can lead to performance improvements especially when the problem is complicated (Creyer, Bettman, & Payne, 1990). Accurate portrayal of the candidate during personnel selection process may also result in better placement in organizations and job performance (Cable & Kay, 2012). Kim, Chiu and Zou (2010) showed that self-verification could result in better task performance. Cable and Kay (2012) showed that self-verifiers were also show better adjustment and performance in a new job.

Thus, both SDR and self-verification can benefit the individual and organizational outcomes. Despite this, past literature have contended with the view of which is more superior, although as Swann (1990) points out, SDR and self-verification should not be seen as competing, but rather complementing. However, few studies have examined how SDR and self-verification can complement each other. To close this gap, I posit that the engagement of SDR and self-verification complements the way people self-regulate their goal pursuit. This is because the engagement of SDR or self-verification fulfills the corresponding self-regulatory needs (Snyder, 1993). I develop these relationships using regulatory mode theory in the next section.

THE EFFECTS OF REGULATORY MODE ON SOCIALLY DESIRABLE RESPONDING AND SELF-VERIFICATION

When people self-regulate, they “decide what they want that they don’t currently have, figure out what they need to do to get what they want, and then they do it” (Higgins, Kruglanski, & Pierro, 2003, p. 293). Thus, self-regulation focuses on the “governing and directing of attention, resources, or actions towards one’s adopted goals” (Kruglanski, Orehek, Higgins, Pierro, & Shalev, 2010, p. 375). Regulatory mode theory suggests that individuals can differ in the preferred mode of self-regulation to accomplish their goals
In this sense, regulatory mode theory looks at the process of goal pursuit. Locomotion and assessment are two functions of self-regulation. Locomotion is the driving aspect of self-regulation and is concerned with movement from one state to another state, in this case from one goal to another goal. In the locomotion mode, people are motivated by movement and want to “just do it” (Kruglanski et al., 2000, p. 794). In contrast, assessment is the comparative aspect of self-regulation and is concerned with comparing various means and selecting the best one to achieve one’s goals. In the assessment mode, people are motivated by accuracy and want to “do the right thing” (Kruglanski et al., 2000, p. 794). Although both regulatory modes are important for goal attainments (i.e. to attain a goal, one often has to decide among several choices (assessment function), and mobilize sufficient resources to move toward the goal (locomotion function)), individual tend to differ in terms of their mode preference, leading them to be high or low in both modes or high in one and low in the other. While this suggests that individuals have a chronic regulatory mode preference, these preferences can also be induced by environment cues.

People who are high in locomotion (locomotors) want to accomplish goals quickly. As Kruglanski and his colleagues (2000) put it succinctly, locomotors are “go-getters”. Once locomotors achieved their goals, they will move on to another goal. Their next goal can be similar or more challenging. However, the latter would be more likely. This is because meeting more difficult challenges and overcoming them will provide locomotors with a sense of accomplishment. To reach one goals quickly and move to other more challenging goals, one needs to believe that one can get ahead with their own capabilities and get along with others (Baumeister, 1982; Goffman, 1959; Hogan, 1983). Doing otherwise would only impede goal progression. Indeed, past research found that locomotors tend to be individuals who are self-confident (high self-esteem) and determined (high attentional control). In Kruglanski et al. (2000), locomotion was positively correlated with Rosenberg’s (1965) self-
esteem (weighted average $r = .30, p < .001$) and optimism ($r = .38, p < .001$), and negatively correlated with Radloff’s (1977) depression scale ($r = -.18, p < .001$). Locomotion was also positively correlated with Costa and McCrae’s (1992) conscientiousness ($r = .56, p < .001$) and Huba, Aneshensel and Singer’s (1981) attentional control ($r = .43, p < .001$).

Hence, when in locomotion mode, people would have a positive opinion of one’s self (self-enhancement) and, be eager to impress others (impression management), which are two components of SDR, so as to bolster their self which aids goal progression.

_Hypothesis 1a: Locomotion mode will be positively related to self-enhancement._

_Hypothesis 1b: Locomotion mode will be positively related to impression management._

On the other hand, people who are higher on the assessment mode (assessors) are different from locomotors. Assessors would be less concerned with self-enhancement and impression management. This is because the assessment mode is concerned with accuracy, thus assessors are likely to be critical evaluators because they want to arrive at a best solution by being accurate in their judgments. Thus, assessors may also be more mindful in their judgments and decision making. Past research support this as Kruglanski et al. (2000) found that assessment was positively correlated with Fenigstein, Scheier and Buss’s (1975) public self-consciousness ($r = .54, p < .001$) and private self-consciousness ($r = .50, p < .001$), Hill’s (1987) need for social comparison subscale of the interpersonal orientation scale ($r = .39, p < .001$), and Jarvis and Petty’s (1996) need to evaluate scale (weighted average $r = .28, p < .001$).

In terms of perceiving their self, I propose that higher assessment should lead to higher engagement in self-verification. Since assessors are concerned with accurate judgment, they will evaluate their self based on a personal standard, and may seek feedback
to aid their evaluation. As mentioned earlier, people engage in self-verification because they desire an accurate self-view, and want predictability and controllability to help them manage social interactions and be confident in uncertain times (Swann, 1990; Swann et al., 1989). Since people high in assessment, will want to engage in self-verification because this enables assessors to be certain about their self which can help them make navigate in ambiguous situations. Assessors who are concerned with accuracy, may also be “concerned with the integrity or authenticity of their actions”, and these individuals are inclined to self-verify (Jones & Pittman, 1982, p. 234).

*Hypothesis 2: Assessment mode will be positively related to self-verification.*

**MEDIATING ROLE OF NEED FOR COGNITIVE CLOSURE**

Previously, I proposed that higher locomotion leads to both higher self-enhancement and impression management while higher assessment leads to higher engagement in self-verification. While regulatory mode identifies two ways of goal pursuit, the strategies to decide the means to pursue goals are different (Kruglanski et al., 2010). In this section, I posit that the need for cognitive closure (NFCC) can be one of these information processing strategies that mediates these relationships. In simpler terms, regulatory mode focuses on how people pursue their goals, while NFCC focuses on how people decide among the means to pursue their goals. First, I will introduce the concept of NFCC and subsequently develop the mediating role of NFCC.

NFCC is a common motivational process and is defined as “a desire for an answer on a given topic, any answer, … compared to confusion and ambiguity” (Kruglanski, 1990, p. 337). NFCC is also viewed as a process to gain understanding of the social environment. NFCC can exist as an individual difference, as well as, a situation induced state (Kruglanski & Fishman, 2009; Webster & Kruglanski, 1994). NFCC encompasses two general epistemic
tendencies: urgency and permanence. The urgency tendency refers to the “inclination to “seize” on closure quickly” (Kruglanski & Fishman, 2009, p. 345), whereas the permanence tendency refers to the “desire to perpetuate closure, giving rise to the dual inclination to preserve, or “freeze” on, past knowledge and to avoid having to consider other incoming information” (Kruglanski & Fishman, 2009, p. 345). Therefore, individuals high in NFCC has a tendency to quickly “seize” information to make their judgment and thereafter, to “freeze” on their judgment and avoid considering other information.

Past research shows that the NFCC factors can also be organized into two higher order factors (Kruglanski et al., 1997; Neuberg, Judice, & West, 1997; Roets, Van Hiel, & Cornelis, 2006). Decisiveness represents one higher order factor labeled as decisiveness, while the desire for order and structure, desire for predictability, intolerance with ambiguity, and closed-mindedness represent the other higher order factor named as the need for simple structure. Since closed-mindedness has been found to have low reliability and poor fit with need for simple structure (Kruglanski et al., 1997; Neuberg et al., 1997; Webster & Kruglanski, 1994), I excluded close-mindedness in the need for simple structure and renamed the second higher order factor as need for structure.

Neuberg and his colleagues (1997) also suggested that decisiveness is related to the urgency tendency or “seizing”, whereas the need for simple structure is related to the permanence tendency or “freezing”. However, Kruglanski and his colleagues (1997) disagreed with this interpretation as evidence for these associations remain inconclusive. This was further supported by Roets and his colleagues’ (2006) evidence that both higher order factors of NFCC are related to both urgency and permanence tendency.

In NFCC, decisiveness represents the need to reach closure quickly (Webster & Kruglanski, 1994), thus would relate more towards the urgency tendency. Individuals who are high in decisiveness, will be quicker in their judgment and decision making. The need for
structure represents the need to have certainty in ambiguous situations (Thompson, Naccarato, Parker, & Moskowitz, 2001). This certainty is managed by individuals desire to be able to predict the future, to have order in their lives (Webster & Kruglanski, 1994). Such individuals will also find ambiguous situations disconcerting. Thus, individuals high in need for structure will likely prefer a consistent and predictable environment so that decisions can be made with certainty.

Based on the past research reviewed above, I expect that NFCC would mediate the relationship between locomotion mode and the two components of SDR, and between assessment mode and self-verification. When pursuing a goal, individuals adopt knowledge-seeking or epistemic strategies that make sense to them. However, which strategies are meaningful depend on which regulatory modes predominates. Recall that higher locomotion leads to higher self-enhancement and impression management. I propose that decisiveness would mediate this relationship. Since locomotors are keen to make progress towards their goal, they are motivated to believe that they are making progress and are eager to obtain information that confirms their prior belief, such as information that confirms the belief that they are capable (self-enhancement belief), and the belief that they have followed the appropriate social norms of impression management. That is, as “go-getters”, locomotors need to be decisive or have the tendency to seize positive information about their self and not consider conflicting information that would slow down their goal pursuits. Consistent with this view, Kruglanski and his colleagues (2000) showed that locomotion is positively related to Kuhl’s (1985) action-decision subscale (weighted average $r = .42; p < .001$) and to Webster and Kruglanski’s (1994) NFCC’s Decisiveness sub-scale (weighted average $r = .30; p < .001$). Research has also shown that people high in the need for cognitive closure tend to seek favorable feedback. Lalwani (2009) showed that people high in NFCC tend to manage their impression while interacting with their respective audiences to reach social consensus.
Receiving favorable feedback and having supportive audiences are important for locomotion because they signal goal progress and hence help locomotors to move on with their goal pursuit. Thus, locomotors are inclined to *seize* favorable (albeit less accurate) social feedback about the self. Hence, decisiveness should mediate the relationship between locomotion and two components of SDR.

_Hypothesis 3a: Decisiveness will mediate the relationship between locomotion orientation and self-enhancement._

_Hypothesis 3b: Decisiveness will mediate the relationship between locomotion orientation and impression management._

In contrast, the mediating effect of NFCC is different for the relationship between assessment and self-verification. I propose that the need for structure would mediate this relationship. Assessors, being concerned with accuracy in their self-judgments, are motivated to be certain with their self so that they can accurately and consistently represent themselves to manage social interactions and handle uncertainty confidently. The need for structure provides assessors the desire to seek for consistent and stable self-knowledge, order and structure in their lives so that these epistemic strategies render decisions meaningful by increasing confidence in the accuracy of their self-perceptions. In short, the assessment mode drives the need for structure which fuels the self-verification processes directed to construct accurate and internally consistent representations of the self. Consistent with this idea, Kruglanski and his colleagues (2000) showed that assessment was positively related to Webster and Kruglaski’s (1994) NFCC’s intolerance with ambiguity subscale (weighted \( r = .39, p < .001 \)), order subscale (weighted \( r = .10 \)), and predictability subscale (weighted \( r = .15 \)). Thus, need for structure should mediate the relationship between assessment and self-verification.
Hypothesis 4: The need for structure will mediate the relationship between assessment orientation and self-verification.

In summary, I proposed that the way individuals regulate their goal pursuit can either lead to higher engagement in SDR or self-verification. Locomotors are motivated to be decisive and make decisions quickly. The need for decisiveness in turn fuels SDR that would allow locomotors to feel that they are able to get ahead and get along with major stakeholders. Assessors want to have order, predictability and avoid ambiguity. These epistemic needs help them to create a stable structure which fuels a self-verification process that affords confidence in the accuracy and consistency of one’s self-identities.

In the next section, I will develop the relationship between regulatory mode and citizenship behaviors and the mediating role of SDR. I will first introduce the framework of organizational citizenship behaviors proposed by Van Dyne and her colleagues (1995). Subsequently, I will connect this research to the development of these relationships.

CONCEPTS IN CITIZENSHIP BEHAVIORS

Citizenship behaviors refers to behaviors that are “discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the efficient and effective functioning of organization” (Organ, 1988, p. 4). In my dissertation, I adopt Van Dyne and her colleagues (1995) categorization of citizenship behaviors: Affiliative and challenging citizenship behaviors.

Employees engaging in affiliative citizenship behavior are concerned with strengthening or preserving relationships and the emphasis is on “helping and cooperative behaviors that are noncontroversial” (Van Dyne et al., 1995, p. 252). Employees who engage in affiliative citizenship behavior are more likely to be relationship oriented, have a higher
degree of trust in others and are more aware of others’ needs. This is related to a prosocial motive whereby employees who engage in affiliative citizenship behaviors are often described as good soldiers, as they want to do good towards others (Bateman & Organ, 1983; Organ, 1988). Indeed, several studies have shown that a prosocial motive predicts affiliative citizenship behaviors (Grant & Mayer, 2009; Y.-J. Kim, Van Dyne, Kamdar, & Johnson, 2013; Rioux & Penner, 2001). However, engaging in affiliative citizenship behaviors can be for instrumental reasons because building relationships in organizations can create social capital and social capital is important for career success (Bolino, Turnley, & Bloodgood, 2002; Bowler & Brass, 2006).

Employees engaging in challenging citizenship behaviors accept some risk in damaging the relationship and they are more likely to voice their opinions but in a way that is “characterized by the constructive expression of challenge with an intent to improve, rather than criticize the situation” (Van Dyne et al., 1995, p. 252). They can constructively express their challenges through proactive behaviors, rational issue selling and taking charge to make these changes (Grant & Mayer, 2009). Employees engage in challenging citizenship behaviors because they are concerned for the organizations (Rioux & Penner, 2001). They may also be described as good soldiers but this is because they want to do good towards the organizations. Past studies have found support between organizational concern motive and challenging citizenship behaviors (Y.-J. Kim et al., 2013; Rioux & Penner, 2001). However, displaying challenging citizenship behaviors can be instrumental as well. Employees who successfully engage in these behaviors signal their capability to the higher management (Stevens, 1997). This can lead to higher job performance (Crant, 1995; Grant, Parker, & Collins, 2009) and early career success (De Vos, De Clippeleer, & Dewilde, 2009).

Indeed, these research suggest that affiliative and challenging citizenship behaviors are valuable for employees’ to achieve their goals and attain success in the organization.
Since employees have to decide what they want and how to get there, the employees’ self-regulation of goal pursuits should influence how they engage in these two types of citizenship behaviors. I will develop these relationships in the next section.

THE RELATIONSHIP BETWEEN REGULATORY MODE AND CITIZENSHIP BEHAVIORS

Recall that locomotion is concerned with goal progress (Kruglanski et al., 2000). Locomotors want to achieve, perform and accomplish their current goal quickly so that they can progress to more valued goals. To get things done quickly, locomotors will likely engage in work behaviors that will provide quick attainment of their goals. Building social capital through relationships is one way to promote goal attainment. Thus people higher in locomotion are more likely to engage in affiliative citizenship behaviors. Offering suggestions to make process improvements may also offer quicker goal attainment because highlighting obstacles and providing solutions to remove these obstacles can improve efficiency in the organization and facilitate goal attainment. Display of citizenship behaviors also draws attention to one’s abilities. From this perspective, individuals higher in locomotion should find it more desirable to engage in citizenship behaviors that will aid their goal progress. Therefore, I hypothesize:

Hypothesis 5a: Locomotion orientation will be positively related to challenging citizenship behaviors.

Hypothesis 5b: Assessment orientation will be positively related to affiliative citizenship behaviors.

Recall that assessors are concerned with accuracy (Kruglanski et al., 2000). Assessment mode may not be associated with affiliative citizenship behaviors as these
behaviors are not related to the assessors’ concern with getting things done right. Assessors want to be accurate because they want to perform doing these tasks well in order to successfully reach their goals. Indeed, past research in Kruglanski and his colleagues (2000) found such a relationship. Assessment was positively correlated more strongly with Button et al. (1996) performance orientation ($r = .41, p < .001$). However, unlike locomotors, assessors are more likely to express their concerns in inadequate processes and resources objectively rather than to show off their capability. If assessors’ do not engage in challenging citizenship behaviors, they might risk not being able to complete their task successfully. Therefore, I hypothesize:

_Hypothesis 6: Assessment orientation will be positively related to challenging citizenship behaviors._

**THE MEDIATING ROLE OF Socially DESIRABLE RESPONDING IN THE RELATIONSHIP BETWEEN LOCOMOTION AND CITIZENSHIP BEHAVIORS**

Recall that the SDR concepts relates self-enhancement to an egoistic biases with agentic values of individuality, personal striving and achievement (Paulhus, 2002; Paulhus & John, 1998) and this fits well with the achievement motivation of challenging citizenship behaviors (Van Dyne et al., 1995). SDR concepts also relates impression management to an moralistic bias with communion values of relationship, intimacy and benefiting of others (Paulhus, 2002; Paulhus & John, 1998) and this fits well with the relational motivation of affiliative citizenship behaviors (Van Dyne et al., 1995). Thus, engaging in citizenship behaviors might be motivated differently by the two components of SDR.

Indeed, past research do suggest that some employees engage in citizenship behaviors because they think it is socially desirable to do so (Bolino, 1999; Snell & Wong, 2007). In particularly, impression management has been research as a motive in the engagement of
affiliative citizenship behaviors because of extrinsic rewards and to avoid social sanctions (Rioux & Penner, 2001). However, the support for this relationship has not been consistent (Grant & Mayer, 2009; Y.-J. Kim et al., 2013; Rioux & Penner, 2001). This could be because of the strong negative connotations found in the items of impression management motive measure by Rioux and Penner (2001) (Finkelstein & Penner, 2004). For example, one sample item reads “I engage in the above organizational citizenship behaviors to avoid looking lazy”. There have been few studies investigating the relationship between self-enhancement and challenging citizenship behaviors (Liu, Lee, Hui, Kwan, & Wu, 2013; Yun, Takeuchi, & Liu, 2007). However, in Liu and his colleagues’ (2013) study, self-enhancement was measured using organization based self-esteem which may not be a good representation of self-enhancement. To circumvent these issue, I used a more subtle but established measure of SDR.

Therefore, similar to these researchers, I propose that the two components of SDR will mediate the relationship between locomotion and citizenship behaviors. Given the positive benefits of engaging in citizenship behaviors (P. M. Podsakoff, MacKenzie, Paine, & Bachrach, 2000), employees seeking to get things done should be motivated to display citizenship behaviors. Locomotors are more likely to find it more desirable to engage in challenging through self-enhancement to feel competent. This is because the agentic values in self-enhancement can motivate these individuals to seek achievements by performing challenging citizenship behaviors. Performing these challenging citizenship behaviors will allow them to be recognized for their capabilities and get ahead. Locomotors are also more likely to find it more desirable to engage in affiliative citizenship behaviors through impression management to feel socially worthy. This is because the communion values in impression management can motivate individuals to seek social approval by performing
Performing these affiliative citizenship behaviors will allow them to build relationships to get along. Therefore, I hypothesize:

*Hypothesis 7a:* Self-enhancement will mediate the relationship between locomotion orientation and challenging citizenship behaviors.

*Hypothesis 7b:* Impression management will mediate between locomotion orientation and affiliative citizenship behaviors.

**SUMMARY OF THE DISSERTATION STUDIES**

I conducted five studies to test my hypotheses and present each study in a separate chapter. Study 1 (Chapter 3) tested the effects of locomotion on the two components of SDR using undergraduate students in the US (hypothesis 1). Study 2 (Chapter 4) replicated Study 1 and further tested the mediating role of NFCC using young adults sample in the US (hypotheses 1 & 3). Study 3 (Chapter 5) replicated Study 2 and additionally used a behavioral measure to test the effects of locomotion on self-enhancement and assessment on self-verification in a sample of undergraduate students in Singapore (hypotheses 1, 2, 3 & 4). Study 4 (Chapter 6) replicated Study 2 by manipulating regulatory mode in a sample of undergraduate students in Singapore (hypotheses 1 & 3). Study 5 (Chapter 7) tested the effects of regulatory mode on citizenship behaviors, and the mediating role of the two components of SDR between locomotion and citizenship behaviors using working adults in the US (hypotheses 1, 5, 6, & 7).
CHAPTER 3 THE RELATIONSHIP BETWEEN REGULATORY MODE AND
SOCIALLY DESIRABLE RESPONDING (STUDY 1)

In this study, I tested the direct effect of regulatory mode on the two components of SDR using undergraduate students located in the US (hypothesis 1). While regulatory mode focuses on the process of goal pursuit, another similar theory called regulatory focus concentrates on the outcomes of goal pursuit. Regulatory focus theory proposes that people can be motivated by the gains or losses in their goals pursuits (Higgins, 1997). When people are more concerned with gains, they have a promotion focus, whereas when people are more concerned with losses, they have a prevention focus. Past studies have shown that individuals with stronger promotion focus will have a tendency to engage in self-enhancement, while individuals with stronger prevention focus will have a tendency to engage in impression management (Lalwani, 2009; Lalwani, Shrum, & Chiu, 2009). Given the relevance of regulatory focus to the two components of SDR, I controlled for the effects of regulatory focus and showed that regulatory mode has incremental contribution over regulatory focus in the present study.

METHODS

Participants and Procedure

A total of 207 participants were recruited from a university in the United States. One participant was dropped from the analysis due to incomplete data. Informed consent was sought prior to the study and anonymity was guaranteed, thus demographics information was not obtained in the study.

Measures

Regulatory mode. I measured regulatory mode with a measure developed by Kruglanski et al. (2000). The scale measures two regulatory mode: Assessment (12 items)
and locomotion (12 items). Items were rated on a 6-point Likert scale ranging from 1 (Strongly disagree) to 6 (Strongly agree). Assessment measures the participants’ orientation towards critical evaluation of the available means for goal pursuits (e.g., “I often critique work done by myself and others”). Locomotion measures the participant’s orientation towards goal progress (e.g., “I am a “doer””). Coefficient alphas for both sub-scales were .757.

**SDR.** My measure of SDR was the Balanced Inventory of Desirable Responding by Paulhus (1991), which consists of two sub-scales: Self-deception enhancement (20 items) and impression management (20 items). Items were rated on a 7-point Likert scale ranging from 1 (Not true at all) to 7 (Very true). I measured self-enhancement using self-deception enhancement, which measures the participant’s claims of overly positive cognitive attributes (e.g., “I am a completely rational person”). Coefficient alpha was .677. Impression management measures the extent to which the participant’s claim to have performed desirable and undesirable behaviors (e.g., “I never read sexy books or magazines”). Coefficient alpha was .735. The coefficient alpha of the combined scale was .750.

**Regulatory focus.** The regulatory focus measure was taken from Higgins et al. (2001) and consists of two dimensions: Prevention focus (5 items) and promotion focus (5 items). Items were rated on a 5-point Likert scale ranging from 1 (Never or seldom) to 7 (Very often). Promotion focus measures the participants’ concerns with hopes and accomplishments (e.g., “I feel that I made progress toward being successful in my life”). Coefficient alpha was .656. Prevention focus measures the participants’ concerns with safety and responsibility (e.g., “Not being careful has gotten me into trouble at times”). Coefficient alpha was .793.
RESULTS

Descriptive statistics and bivariate correlations for all variables are given in Table 1.

As hypothesized, individuals with higher locomotion reported more self-enhancement ($r = .36; p < .001$) and impression management ($r = .20; p = .004$). Individuals higher in assessment reported less self-enhancement ($r = -.22; p = .002$). Assessment was also negatively associated with impression management ($r = -.11; p = .119$) but this relationship was not significant.

Past findings on the relationship between regulatory focus and the two components of SDR were replicated. Individuals with stronger promotion focus reported more self-enhancement ($r = .42; p < .001$). Individuals with stronger prevention focus reported more impression management ($r = .28; p < .001$). More importantly, the pattern of relationships of the two components of SDR with regulatory mode was different from that with regulatory focus.

I tested the main effect of regulatory mode on the two components of SDR in two hierarchical multiple regression analyses, one for self-enhancement and one for impression-management. The two regulatory focus variables were entered as control variables in Step 1. In the second step, the two regulatory mode variables were entered. The results are shown in Table 2.

As shown in Table 2 (Model 2), when self-enhancement was the dependent variable, regulatory mode variables contributed significantly to the model ($\Delta F(2, 201) = 13.458; p < .001; \Delta R^2 = .097$). Individuals higher in locomotion reported more self-enhancement ($B = \ldots$)
0.295, SE = 0.071, t = 4.150; p < .001), supporting hypothesis 1a. Interestingly, individuals with higher assessment reported less self-enhancement (B = -0.240, SE = 0.055, t = -4.362; p < .001).

When impression management was the dependent variable, as shown in Table 2 (Model 4), regulatory mode variables contributed significantly to the model (ΔF(2, 201) = 8.146; p < .001, ΔR² = .069). Individuals higher in locomotion reported more impression management (B = 0.338, SE = 0.097, t = 3.484; p = .001) supporting hypothesis 1b. Individuals higher in assessment reported less impression management (B = -0.232, SE = 0.075, t = -3.097; p = .002).

When the aggregate score of SDR (combining self-enhancement and impression management) was used as the dependent variable, as shown in Table 2 (Model 6), the regulatory mode variables contributed significantly to SDR (ΔF(2, 201) = 19.049; p < .001; ΔR² = .134). Individuals higher in locomotion responded in a more socially desirable manner (B = 0.317, SE = 0.062, t = 5.148; p < .001). Individuals higher in assessment responded in a less socially desirable manner (B = -0.236, SE = 0.048, t = -4.947; p < .001).

**SUMMARY AND CONCLUSIONS**

In summary, the results replicated the effects of regulatory focus on the two components of SDR (Lalwani et al., 2009). After controlling for the effects of regulatory focus, regulatory mode variables showed incremental contribution to SDR measures. Furthermore, the effects of regulatory focus were different from the effects of regulatory mode on the two components of SDR, suggesting that these two measures are different. More importantly, the results supported the hypothesized relationships between locomotion and the two components of SDR. People higher in locomotion were more likely to give socially desirable responses; they reported having more good qualities (self-enhancement).
and socially appropriate behavior (impression management). Interestingly, people higher in assessment showed the reverse tendencies. They were less likely to self-enhance or engage in impression management. I will discuss these implications in the final chapter.

In the next study reported in the next chapter, I replicated the direct effects of the current study using another sample. I also tested the mediating effects of NFCC between locomotion and the two components of SDR.
CHAPTER 4 THE MEDIATING EFFECTS OF NEED FOR COGNITIVE CLOSURE ON LOCOMOTION AND SOCIALLY DESIRABLE RESPONDING (STUDY 2)

I extended study 1 by replicating major results with a US adult online sample to test hypotheses 1 and 3. I also investigated the indirect effect of NFC on the relationship between locomotion and the two components of SDR: self-enhancement (hypothesis 3a) and impression management (hypothesis 3b).

METHODS

Participants and Procedure

A total of 750 participants were recruited online using Amazon Mechanical Turk. After informed consent was sought, participants were directed to Qualtrics to complete an online questionnaire. Participants were compensated US$1. A total of 583 participants (342 participants were female) were retained; the rest were excluded as they did not meet the inclusion criteria (US location and English as first language), or failed to follow instructions (77.7% retention rate). Most of the retained participants were young adults with the average age between 26 and 35. The majority of the participants (84.3%) had at least attended some college. Most participants were Caucasians (81.7%).

Measures

Regulatory mode. Similarly in Study 1, I measured regulatory mode with a measure developed by Kruglanski et al. (2000). The scale measures two regulatory mode: Assessment (12 items) and locomotion (12 items). Items were rated on a 6-point Likert scale ranging from 1 (Strongly disagree) to 6 (Strongly agree). Assessment measures the participants’ orientation towards critical evaluation of the available means for goal pursuits (e.g., “I often critique work done by myself and others”). Locomotion measures the
participant’s orientation towards goal progress (e.g., “I am a “doer””). Coefficient alpha was .830 for assessment and .869 for locomotion.

**NFCC.** This scale was taken from Webster and Kruglanski (1994) and consists of five sub-dimensions: Close-mindedness (8 items), decisiveness (7 items), intolerance with ambiguity (9 items), order (10 items) and predictability (8 items). Items were rated on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Based on past research (Kruglanski et al., 1997; Neuberg et al., 1997), I adopted a two higher order factor measurement model: Decisiveness and Need for Structure. Decisiveness measures the urgency to make judgment and decisions (e.g., “I usually make important decisions quickly and confidently”). Coefficient alpha was .844. Need for structure was formed by aggregating three sub-dimensions of NFC: intolerance with ambiguity (e.g., “I’d rather know bad news than stay in a state of uncertainty”), order (e.g., “I think that having clear rules and order at work is essential for success”) and predictability (e.g., “I don’t like to go into a situation without knowing what I can expect from it”). Coefficient alpha was .902. Close-mindedness was not included in the higher order factor of Need for Structure because past research showed that this sub-dimension does not cohere with this higher order factor (Kruglanski et al., 1997; Neuberg et al., 1997).

**SDR.** Similar to Study 1, SDR was measured using the Balanced Inventory of Desirable Responding by Paulhus (1991), which consists of two sub-scales: Self-deception enhancement (20 items) and impression management (20 items). Items were rated on a 7-point Likert scale ranging from 1 (Not true at all) to 7 (Very true). I measured self-enhancement using self-deception enhancement, which measures the participant’s claims of overly positive cognitive attributes (e.g., “I am a completely rational person”). Coefficient alpha was .759. Impression management measures the extent to which the participant’s claim to have performed desirable and undesirable behaviors (e.g., “I never read sexy books or
magazines”). Coefficient alpha was .848. The coefficient alpha of the combined scale was .860.

RESULTS

Descriptive statistics and bivariate correlations for the variables are shown in Table 3.

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Insert Table 3 here

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Similar to Study 1 results, the bivariate correlation analysis showed that locomotion was positively associated with self-enhancement (r = .34; p < .001), impression management (r = .19; p < .001), decisiveness (r = .35; p < .001) and need for structure (r = .11; p < .007). Assessment was negatively associated with their self-enhancement (r = -.37; p < .001), impression management (r = -.24; p < .001), and decisiveness (r = -.31; p < .001) but was positively associated with need for structure (r = .20; p < .001)

I tested the main effects of regulatory mode separately on each component of SDR using a 2-step hierarchical multiple regression. In the first step, age gender, and education were entered as controls. In the second step, the two regulatory modes were entered as main effects. The results are shown in Table 4.

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Insert Table 4 here

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As shown in Table 4 (Model 2), for self-enhancement, regulatory modes contributed significantly to the model (ΔF(2, 577) = 108.736; p < .001; ΔR² = .265). Individuals higher in locomotion rated their self-enhancement to be higher (B = 0.553, SE = 0.052, t = 10.654; p < .001) supporting hypothesis 1a, while individuals higher in assessment rated their self-enhancement to be lower (B = -0.568, SE = 0.051 t = -11.073; p < .001).
Table 4 (Model 4) shows that, for impression management, regulatory modes contributed significantly to the model ($\Delta F(2, 577) = 35.218; p < .001; \Delta R^2 = .105$). Locomotion predicted impression management ($B = 0.421, SE = 0.065, t = 6.448; p < .001$), supporting hypothesis 1b. However, individuals higher in assessment rated their impression management to be lower ($B = -0.381, SE = 0.065, t = -5.905; p < .001$).

I explored the main effects on the combined SDR measure. Table 4 (Model 6) shows that results in the second step suggested that the regulatory modes contributed significantly to the model ($\Delta F(2, 577) = 83.606; p < .001; \Delta R^2 = .220$). Individuals higher in locomotion made more socially desirable responses ($B = 0.313, SE = 0.035, t = 8.851; p < .001$), while individuals higher in assessment made fewer ($B = -0.355, SE = 0.035, t = -10.151; p < .001$).

**Indirect Effects Analysis**

The mediating effects of decisiveness between locomotion and the two components of SDR were tested using indirect effects analysis (Preacher & Hayes, 2008). The indirect effects were analyzed with assessment, age, gender, and education as covariates.

Indirect effects analysis was conducted using Preacher and Hayes’ (2008) procedure to estimate direct and indirect effects. Analyses were conducted using SPSS 20.0 with INDIRECT.SPS (Hayes, 2013). Ninety five percent confidence intervals (CIs) were used and 20,000 bootstrapping samples were run. CIs were adjusted for bias (bias-corrected and accelerated; BCa). The results are shown in Figure 1.

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Insert Figure 1 here

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Results from a simple mediation analysis conducted using ordinary least squares path analysis reveal that locomotion indirectly influenced participants’ report of self-enhancement through its effects on participants’ decisiveness supporting hypothesis 3a. As shown in Figure 1 (Panel A), participants with higher locomotion reported higher levels of decisiveness.
(B = 0.505, SE = 0.049, t = 10.384; p < .001) and need for structure (B = 0.077, SE = 0.038, t = 2.044; p = .041). Participants with higher decisiveness reported higher self-enhancement (B = 0.309, SE = 0.026, t = 11.824; p < .001). Need for structure was not related to self-enhancement (B = -0.027, SE = 0.034, t = -0.814; p = .416). The CI for the indirect effect of decisiveness (B = 0.156, SE = 0.021) based on 20,000 bootstrap samples did not include zero (0.116 to 0.199), whereas for need for structure (B = -0.002, SE = 0.002), the CI included zero (-0.013 to 0.002). Participants’ locomotion had a positive direct effect on self-enhancement above and beyond the indirect effects of decisiveness and need for structure (B = 0.214, SE = 0.033, t = 6.425; p < .001).

Locomotion influenced impression management through its effects on decisiveness, supporting hypothesis 3b and need for structure. As shown in Figure 1 (Panel B), participants with higher locomotion reported higher levels of decisiveness (B = 0.505, SE = 0.048, t = 10.384; p < .001) and need for structure (B = 0.077, SE = 0.038, t = 2.044; p = .041). Participants with higher decisiveness reported more impression management (B = 0.136, SE = 0.044, t = -3.070; p = .002). Participants with higher need for structure reported more impression management (B = 0.149, SE = 0.057, t = 2.618; p = .009). The CI for the indirect effect of decisiveness (B = 0.069, SE = 0.023) based on 20,000 bootstrap samples did not include zero (0.027 to 0.118). The CI for the indirect effect of need for structure (B = 0.012, SE = 0.008) based on 20,000 bootstrap samples did not include zero (0.000 to 0.035). However, the indirect effect of decisiveness was significantly stronger than the effect of need for structure (Contrast CI: 0.011 to 0.109). Participants’ locomotion had a positive direct effect on impression management above and beyond the indirect effects of decisiveness and need for structure (B = 0.177, SE = 0.057, t = 3.117; p = .002).

I also investigated the effects of locomotion on the combined measure of SDR. These analyses revealed that locomotion indirectly influenced participants’ levels of SDR through
its effects on participants’ decisiveness. From Figure 1 (Panel C), participants with higher levels of locomotion reported higher levels of decisiveness ($B = 0.505$, $SE = 0.049$, $t = 10.384$; $p < .001$) and need for structure ($B = 0.077$, $SE = 0.038$, $t = 2.044$; $p = .041$).

Participants with higher decisiveness responded in a more socially desirable manner ($B = 0.222$, $SE = 0.029$, $t = 7.729$; $p < .001$). However, need for structure was not related to SDR ($B = 0.061$, $SE = 0.037$, $t = 1.647$; $p = .100$). The CI for the indirect effect of decisiveness ($B = 0.112$, $SE = 0.018$) based on 20,000 bootstrap samples did not include zero (0.080 to 0.151), whereas for need for structure ($B = 0.005$, $SE = 0.004$), the CI included zero (-0.001 to 0.018). Participants’ locomotion had a positive direct effect on SDR above and beyond the indirect effects of decisiveness and need for structure ($B = 0.196$, $SE = 0.037$, $t = 5.316$; $p < .001$).

**Testing of Alternative Model**

I tested the alternative hypothesis with NFCC affecting the two components of SDR through the indirect effects of regulatory modes because NFCC can be a disposition, as well as, a state (Kruglanski & Fishman, 2009). The results are reported in Figure 2.

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Insert Figure 2 here

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The competing indirect effect of locomotion between decisiveness and self-enhancement ($B = 0.059$, $SE = 0.013$) was weaker than the hypothesized indirect effect of decisiveness between locomotion and self-enhancement ($B = 0.156$, $SE = 0.021$). Similarly, the competing hypothesized indirect effect of locomotion between decisiveness and impression management ($B = 0.049$, $SE = 0.017$) was weaker than the hypothesized indirect effect of decisiveness between locomotion and impression management ($B = 0.069$, $SE = 0.023$). I assessed model fit of the indirect effect of NFCC on impression management through locomotion and the indirect effect of locomotion on impression management through
the NFCC using LISREL 8.80 (Jöreskog & Sörbom, 1996). Before testing the structural models, a confirmatory factor analysis was conducted. I used parcels to reduce the number of indicators (Coffman & MacCallum, 2005). Decisiveness, regulatory mode and SDR measures were parceled using homogenous parceling. Since need for structure measures composed of the need for order, the preference for predictability and intolerance with ambiguity, I reduced the parcels by using total aggregation parceling, which comprised of all the indicators that belong to each variable. The overall fit of confirmatory factor analysis model was acceptable [$\chi^2 (237) = 1076.417$, RMSEA = .078 (90% CI: .073, .083), SRMR = .082, CFI = .94, NNFI = .93]. The results of the two structural models are shown in Figure 3.

The fit indices were slightly worse for the indirect effect of NFCC on the two components of SDR through regulatory mode [Figure 3 (Panel B), $\chi^2 (239) = 1114.937$, RMSEA = .079 (90% CI: .075, .084), SRMR = .087, CFI = .94, NNFI = .93, AIC = 1236.937, EVCI = 2.114] as compared to the indirect effect of regulatory mode on two components of SDR through the NFCC [Figure 3 (Panel A), $\chi^2 (239) = 1077.310$, RMSEA = .077 (90% CI: .073, .082), SRMR = .082, CFI = .94, NNFI = .93, AIC = 1199.310, EVCI = 2.050].

The results suggested that the competing model had a poorer fit than the proposed model, although the results do not rule out the competing model. In Study 4, I conducted an experiment by manipulating regulatory mode to test the effects of need for cognitive closure on two components of SDR. This should provide a stronger test for the causal effect of regulatory mode.
SUMMARY AND CONCLUSIONS

Similar to Study 1, the relationships between locomotion and the two components of SDR were replicated using another sample consisting of adults. Locomotion was also positively related to SDR as an aggregate measure. Assessment was negatively related to SDR, self-enhancement and impression management.

Decisiveness has a positive indirect effect that links locomotion to self-enhancement, impression management and the aggregate measure of SDR. People higher in locomotion are more decisive and people who are more decisive perceive themselves to be more self-enhancing, as well as, to be engaging in impression management.

To address the limitations of using self-report measures (e.g. common method variance), in the next study, a trait selection task was developed to determine how locomotion and assessment affect the selection of positive and negative traits and a delayed trait recognition task was used to assess the effects of regulatory modes on the depth of trait information processing.
CHAPTER 5 ESTABLISHING THE RELATIONSHIP BETWEEN REGULATORY MODE, SOCIA LLY DESIRABLE RESPONDING AND SELF-VERIFICATION USING TRAIT SELECTION MEASURES (STUDY3)

I conducted a conceptual replication of Study 2 in Singapore to test hypotheses 1, 2, and 3. To increase the methodological diversity of the research program, I used a behavioral task to measure self-enhancement (hypothesis 1a). In addition, to measure self-verification, I used both trait recognition and signal detection analysis to estimate the trait recognition accuracy (hypothesis 2).

To measure self-enhancement, I followed Holtgraves’s (2004) approach which presents positive and negative trait words to participants and asked them to decide whether each word described them. Past research on the Pollyanna hypothesis showed that people have a general tendency to attribute more positive traits versus negative traits to the self (Boucher & Osgood, 1969). Accordingly, I expect a self-enhancement bias in the participants’ choices. However, this bias should be more pronounced among participants with a stronger preference for locomotion. This provides another method to test for the relationship between locomotion and self-enhancement for hypothesis 1a.

In addition, to examine the robustness of the self-enhancement bias for locomotors, I included another set of trials in which the participants were explicitly told to choose traits that accurately describe themselves. This instruction should attenuate the self-enhancement bias. Nonetheless, if the hypothesized association between locomotion and self-enhancement is robust, it should remain significant even when the participants were given the accuracy instructions further supporting hypothesis 1a.

Self-verification motivates individuals to form consistent perceptions of the self (Swann, 1983) and hence deepens processing of self-related information. Swann and Read (1981) found that self-verification improves recall of self-related information after a short
delay. Thus, in the current study, for hypothesis 2, participants with stronger preferences for assessment will process self-related information more deeply and hence have better memory of self-related information in a subsequent surprise recognition test. Following the procedures used in Sui, Zhu and Chiu (2007), after the trait attribution task and a brief delay, participants were given a surprise recognition task in which they were asked to identity old trait words (words that were shown in the attribution task) from new ones. Individuals with stronger preferences for assessment will have engage in self-verification as indicated by a better recognition memory of the trait words, as measured by the sensitivity index, d’ in signal detection analysis.

**METHODS**

**Participants**

The participants were 130 undergraduates recruited from a local public university in Singapore. Due to software performance issues, complete data from 97 participants (56 females) were included in the data analysis. The mean age of the participants were 21.55 years (SD = 1.61). Most of them (92%) were of Chinese ethnicity. Participants came from diverse disciplines: Business (N = 34), engineering (N = 34), humanities, arts and social sciences (N = 16), and physical sciences (N = 14).

**Procedure**

Similar to Holtgraves’ (2004), I obtained likeability ratings of personality traits from Anderson (1968). Based on the likeability ratings, 50 positive personality traits (traits with likeability ratings that are one standard deviation above the mean), and 50 negative personality traits (traits with likeability ratings that were one standard deviation below the mean) were selected. These traits are shown in Table 5.
Subsequently, I asked seven senior graduate students to judge the valence (positive, neutral or negative) of each selected trait, and eliminated traits that received mixed judgments. The final list consisted of 30 positive and 30 negative traits. I used these traits to construct 3 lists, each consisting of 10 randomly selected positive traits and 10 randomly selected negative traits. These lists are shown in Table 6.

Word frequencies of the selected traits were obtained from Kučera and Francis (1967). The three lists did not differ in terms of word frequency \([F(5, 46) = 1.988, p = .098]\), word length \([F(5, 54) = 0.3256, p = .895]\) and syllable length \([F(5, 54) = 0.224, p = .951]\). The three lists also did not differ in mean likeability for positive traits \([F(2, 27) = 0.025, p = .975]\) and for negative traits list \([F(2, 27) = 0.560, p = .577]\).

In a cover story, participants were told that the study concerned motivation and work behaviors. The participants were tested individually in a sound proof experimental room equipped with a computer. Participants received instructions on the trait attribution task and proceeded to the first part of the test. During the test, participants placed their index fingers on the keys designated for the “Describe me” and “Does not describe me” responses. For half of the participants, the “Describe me” key was assigned to the left-handed finger and the “Does not describe me” key was assigned to the right-handed finger. For the remaining participants, the “Describe me” key was assigned to the right-handed finger and the “Does not describe me” key was assigned to the left-handed finger.

On each trial of the test, a crosshair was shown in the middle of the screen for 500ms to 1000ms. Then, one of the 20 trait words from one of the two trait lists (List A or B) was
presented at the center of a computer display and the participants were asked to choose whether the word “Describes me” or “Does not describe me” by pressing one of the designated keys.

After the participants had completed this block of trials, they proceeded to the second block. The only difference between the two blocks was that the second block, participants judged whether the trait words accurately described them. Participants who were shown words on List A (List B) in Block 1 were shown words on List B (List A) in Block 2.

Superlab 4.5 was used to present the stimuli and record the participants’ responses. Practice trials were included at the beginning of each block of trials. In each block, the words were presented in a random order, with a different random order for each participant.

Upon completing the trait attribution task, participants were asked to complete an online survey and were told that this survey was not related to the current study. The survey consisted of similar self-rated measures that were used in Study 2. The survey was programmed to last exactly for 10 minutes. Next, the participants were given a surprise recognition test. In this test, the words in the two lists the participants had been exposed to during the encoding phase were mixed with 20 new words from List C. On each trial, a crosshair was presented in the middle of the screen for 500ms to 1000ms, following by one of the 60 words. Upon seeing the word, the participants judged whether it was old or new. If the response was old, participants were asked to respond if they remembered seeing the trait (Remember) or the trait looked familiar (Familiar). Again, practice trials were included at the beginning of the recognition test, and the words were presented in a random order, with a different random order for each participant.

Measures

Regulatory mode. Similarly in Study 1 and 2, I measured regulatory mode with a measure developed by Kruglanski et al. (2000). The scale measures two regulatory mode:
Assessment (12 items) and locomotion (12 items). Items were rated on a 6-point Likert scale ranging from 1 (Strongly disagree) to 6 (Strongly agree). Assessment measures the participants’ orientation towards critical evaluation of the available means for goal pursuits (e.g., “I often critique work done by myself and others”). Locomotion measures the participant’s orientation towards goal progress (e.g., “I am a “doer””). Coefficient alpha was .668 for assessment and .750 for locomotion.

**Decisiveness.** The decisiveness scale from Webster and Kruglanski (1994) used in Study 2 was shortened using exploratory factor analysis (EFA) and CFA methodology was used to measure decisiveness (Results are available from the author). Five items were rated on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Decisiveness measures the urgency to make judgment and decisions (e.g., “I usually make important decisions quickly and confidently”). Coefficient alpha was .772.

**Intolerance with ambiguity.** The intolerance with ambiguity scale from Webster and Kruglanski (1994) used in Study 2 was shortened using EFA and CFA methodology was used to measure intolerance with ambiguity (Results are available from the author). Five items were rated on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Intolerance with ambiguity represents one facet of need for structure and measures the feeling of discomfort in uncertainty (e.g., “I don’t like situations that are uncertain”). Coefficient alpha was .791.

**SDR.** The SDR scale by (Paulhus, 1991) used in Study 1 and 2 was shortened using EFA and CFA methodology (Results are available from the author). Of the 11 items, 5 measure self-enhancement and 6 measure impression management. Items were rated on a 7-point Likert scale ranging from 1 (Not true at all) to 7 (Very true). Self-enhancement measures the participant’s claims of overly positive cognitive attributes (e.g., “I am a completely rational person”). Coefficient alpha was .660. Impression management measures
the extent to which the participant’s claim to have performed desirable and undesirable behaviors (e.g., “I always obey laws, even if I’m unlikely to get caught”). Coefficient alpha was .627. The coefficient alpha of the combined scale was .677.

**Self-verification.** Self-verification was measured using two methods. The first method is the based on the number of traits recalled correctly. The second method measures accuracy in trait recognition, similar to the notation used by Paulhus and his colleagues (2003). I calculated accuracy by subtracting the Z-transformed false alarm rates (incorrectly select words that are new as old) from the Z-transformed hit rates (correctly select words that are old). In signal detection theory, this is called the sensitivity index, $d'$. A larger $d'$ indicates that the individual is more accurate in discriminating old words from new words. As perfect hit rates and false alarm rates causes errors in the calculation of $d'$, I followed the correction recommended by Macmillan and Kaplan (1985), where there were perfect hit rates and false alarm rates.

**RESULTS**

**Results of SDR From Survey Measures**

Descriptive statistics and bivariate correlations for the measured variables are shown in Table 7.

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Insert Table 7 here
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As in Study 1 and 2, locomotion was significantly and positively associated with self-enhancement ($r = .30; p = .003$), impression management ($r = .27; p = .007$) and decisiveness ($r = .26; p = .009$). Assessment was not correlated with self-enhancement ($r = .12; p = .257$) and impression management ($r = -.07; p = .492$), but had marginally significant negatively correlation with decisiveness ($r = -.17; p = .088$). More importantly, the self-enhancement
measure showed convergent relationships with the trait selection measures. Participants who reported higher self-enhancement selected more positive traits ($r = .37; p < .001$), and fewer negative traits ($r = -.41; p < .001$) to describe themselves. They did so even when they were asked to make accurate self-descriptions ($r = .33; p = .001$ for positive traits and $r = -.24; p = .017$ for negative traits). Identical patterns were obtained for impression management. Participants who reported higher levels of impression management selected more positive traits ($r = .35; p < .001$), and fewer negative traits ($r = -.22; p = .030$) to describe themselves. They did so even when they were asked to make accurate self-descriptions ($r = .26; p = .011$ for positive traits and $r = -.21; p = .039$ for negative traits).

Results of the hierarchical multiple regression analysis are shown in Table 8.

Results of hierarchical multiple regression analysis showed that after age, and gender were entered as controls in step 1, regulatory mode variables entered at step 2 contributed significantly to the model ($\Delta F(2, 92) = 4.084; p = .020; \Delta R^2 = .078$) as shown in Table 10 (Model 2). Individuals with stronger preference for locomotion reported higher levels of self-enhancement ($B = 0.438, SE = 0.165, t = 2.654; p = .009$) supporting hypothesis 1a.

For self-reported impression management, after controlling for age, and gender in step 1, regulatory mode variables contributed significantly to the model ($\Delta F(2, 92) = 3.793; p = .026; \Delta R^2 = .071$) as shown in Table 10 (Model 4). Individuals with stronger preference for locomotion reported higher levels of impression management ($B = 0.428, SE = 0.169, t = 2.538; p = .013$) supporting hypothesis 1b. For self-reported SDR (consisting of both self-enhancement and impression management), after controlling for age and gender in step 1, regulatory mode variables contributed significantly to the model ($\Delta F(2, 92) = 5.819; p$
= .004; $\Delta R^2 = .102$). As seen in Table 10 (Model 6), individuals with stronger preferences for locomotion scored higher on SDR ($B = 0.433$, $SE = 0.127$, $t = 3.411$; $p = .001$).

The hypothesized indirect effects of decisiveness and intolerance with ambiguity were tested using Preacher and Hayes’ (2008) procedure. Analyses were conducted using 20.0 with INDIRECT.SPS (Hayes, 2013). Bias corrected and accelerated 95% confidence interval (CIs) were constructed from 20,000 bootstrap sample. The results are shown in Figure 4.

Ordinary least squares path analysis shows that after controlling for age, gender, and the alternate regulatory mode, locomotion indirectly influenced self-reports of self-enhancement through its effects on decisiveness supporting hypothesis 3a. Figure 4 (Panel A) show that participants with stronger preference for locomotion reported higher levels of decisiveness ($B = 0.540$, $SE = 0.200$, $t = 2.695$; $p = .008$), which in turn, predicted higher self-enhancement ($B = 0.467$, $SE = 0.072$, $t = 6.533$; $p < .001$). The 95% CI for the indirect effect of decisiveness ($B = 0.252$, $SE = 0.095$) based on 20,000 bootstrap samples was above zero (0.079 to 0.453). Participants with higher intolerance with ambiguity marginally reported lower levels of self-enhancement ($B = -0.143$, $SE = 0.080$, $t = -1.792$; $p = .077$). Participants’ locomotion influence on self-enhancement was not independent of the effect of decisiveness and intolerance with ambiguity ($B = 0.163$, $SE = 0.134$, $t = 1.223$; $p = .225$).

As seen in Figure 4 (Panel B), the indirect effect of participants’ decisiveness hypothesized to mediate the relationship between locomotion and impression management was not significant, disconfirming hypothesis 3b.

For SDR (consisting of both self-enhancement and impression management), indirect effect analysis reveals that locomotion indirectly influenced SDR through its effects on decisiveness. As shown in Figure 4 (Panel C), participants with higher locomotion reported
higher levels of decisiveness ($B = 0.540$, $SE = 0.200$, $t = 2.695$; $p = .008$). Participants who reported higher levels of decisiveness exhibited more SDR ($B = 0.289$, $SE = 0.061$, $t = 4.750$; $p < .001$). The 95% CI for the indirect effect of decisiveness ($B = 0.156$, $SE = 0.066$) based on 20,000 bootstrap samples was above zero (0.051 to 0.319). Locomotion significantly predicted SDR independent of the effect of decisiveness and intolerance with ambiguity ($B = 0.261$, $SE = 0.114$, $t = 2.297$; $p = .024$).

**Results of Self-Enhancement Using Trait Attribution**

Table 7 shows the correlations between locomotion and the number of positive traits attributed to the self. Participants with stronger preference for locomotion described themselves with more positive traits ($r = .43; p < .001$), and fewer negative traits ($r = -.26; p = .011$). These relationships remained even when participants were instructed to make accurate self-descriptions ($r = .37; p < .001$ for positive traits and $r = -.19; p = .069$ for negative traits), although the relationship between locomotion and negative trait was only marginally significant when accuracy was emphasized. Assessment was not related to the trait attribution measures.

In addition, participants who reported higher levels of decisiveness also described themselves with more positive traits ($r = .26; p = .010$) and fewer negative traits ($r = -.27; p = .007$). These relationships remained even when the participants were instructed to make accurate self-descriptions ($r = .26; p = .011$ for positive traits and $r = -.24; p = .019$ for negative traits).

Intolerance with ambiguity showed the opposite pattern. Participants who reported higher levels intolerance with ambiguity selected fewer positive traits ($r = -.23; p = .026$) and more negative traits ($r = .14; p = .172$) to describe themselves, although the relationship between intolerance with ambiguity and negative trait attributions was not significant. They
did so even when they were asked to make accurate self-descriptions ($r = -.21; p = .038$ for positive traits and $r = .28; p = .006$ for negative traits).

A general linear model analysis was run using number of traits attributed to the self as the dependent variable, with trait valence as a within-subjects factor, either regulatory mode measure (grand mean-centered) as predictors, and age, gender, response format (describe me key on the left or right) and word list (List A or B used in Block 1) as controls. Separate models were performed on traits selected to describe the self and traits selected to describe the self accurately. The results are plotted in Figure 5 and Figure 6.

As shown in Figure 5, the main effect of valence was significant across all four models based on least significant difference test ($\alpha = .05$). In the model that tested the effect of locomotion on trait selection (Panel A), participants selected more positive traits than negative traits to describe the self ($M = 7.23, SE = 0.19$ for positive traits versus $M = 3.01, SE = 0.28$ for negative traits) and to describe the self accurately ($M = 7.30, SE = 0.21$ for positive traits versus $M = 2.62, SE = 0.25$ for negative traits). The same results was obtained in the model that tested the effect of assessment on trait selection (Panel B; $M = 7.30, SE = 0.19$ for positive traits versus $M = 2.96, SE = 0.23$ for negative traits for self-descriptions, and $M = 7.33, SE = 0.21$ for positive traits versus $M = 2.58, SE = 0.25$ for negative traits for accurate self-descriptions).

Figure 6 shows that the self-enhancement bias in trait selection was more pronounced among participants with stronger preference for locomotion (above grand mean) and those with weaker preference for locomotion (below grand mean). In the model that tested the effect of locomotion on trait selection for self-description (Panel A), there was a significant interaction of locomotion and trait valence on self-description ($F(1,91) = 5.463, p = .022$,
\( \eta_p^2 = .057 \), supporting hypothesis 2. From Figure 6 (Panel A), participants with stronger preference for locomotion selected more positive traits \( (M = 7.72, SE = 0.25) \) and fewer negative traits \( (M = 2.60, SE = 0.31) \) to describe themselves than did those with weaker preference for locomotion \( (M = 6.75, SE = 0.29 \text{ for positive traits and } M = 3.42, SE = 0.36 \text{ for negative traits}) \).

In the model that tested the effect of locomotion on trait selection for accurate self-description (Panel B), the interaction was not significant \( (F(1, 91) = 1.883, p = .173, \eta_p^2 = .020) \). Once the accuracy motivation was highlighted, the regulatory mode effect was attenuated.

**Results of Self-Verification Based on Number of Traits Recalled**

As shown in Table 7, in the delayed recognition test, participants with stronger preference for locomotion were tended to correctly recognize fewer negative traits \( (r = -.17; p = .092) \) and more positive traits \( (r = .20; p = .053) \). There were no relationships between assessment and recognition of positive or negative traits.

The multiple regression analysis results presented in Table 9 (Model 2) showed that after controlling for age, gender, response format and word list identity in step 1, the regulatory mode variables contributed marginally to the model \( (\Delta F(2, 90) = 2.740; p = .070; \Delta R^2 = .041) \). Participants with stronger preference for assessment had better recognition memory for the trait words \( (B = 2.573, SE = 1.157, t = 2.224; p = .029) \) supporting hypothesis 2. Locomotion did not predict the number of traits correctly recognized \( (B = -1.075, SE = 1.125, t = -0.956; p = .342) \).

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Table 9 (Model 4) shows the results when the dependent variable for recognition memory for positive traits. The regulatory mode variables contributed significantly to the
model ($\Delta F(2, 90) = 3.747; p = .027; \Delta R^2 = .035$) after controlling for age, gender, response format and word list identity. Individuals with higher preference for assessment correctly recognized more positive traits ($B = 1.503, SE = 0.567, t = 2.648; p = .010$) supporting hypothesis 2. Again, locomotion was not related to the number of positive traits correctly recognized ($B = 0.229, SE = 0.552, t = 0.416; p = .679$).

Table 9 (Model 6) shows that for the recognition of negative traits, the effect of assessment was not significant ($F(6, 90) = 1.717; p = .126$), indicating that the effect of assessment on trait recognition was driven primarily by its effect on the recognition of positive traits.

Contrary to hypothesis 4, I did not find any indirect effects of intolerance with ambiguity between assessment and recognition of traits.

**Results of Self-Verification Using Accuracy of Trait Recognition**

The main effects of locomotion and assessment on accuracy were tested using hierarchical multiple regression analysis. In the first step, age, gender, response format and word list identity were added as controls. In the second step, the number of correctly recognized traits was regressed on the two regulatory mode variables. The results are shown in Table 10.

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For accuracy in trait recognition (Table 10, Model 2), the regulatory mode variables contributed significantly to the model ($\Delta F(2, 90) = 4.416; p = .015; \Delta R^2 = .043$). Individuals with stronger preference for assessment were more accurate in trait recognition ($B = 0.307, SE = 0.128, t = 2.409; p = .018$) supporting hypothesis 2. Individuals stronger preference for locomotion were marginally less accurate in trait recognition ($B = -0.246, SE = 0.124, t = -1.981; p = .051$).
For recognition of positive trait (Table 10, Model 4), the regulatory mode variables had a marginally significant contribution to the model ($\Delta F(2, 90) = 2.618; p = .078; \Delta R^2 = .017$). Individuals with stronger preference for assessment were marginally more accurate in recognizing old positive traits ($B = 0.239, SE = 0.133, t = 1.801; p = .075$). Locomotion was not related to the recognition accuracy positive traits ($B = -0.205, SE = 0.129, t = -1.591; p = .115$).

For recognition of negative traits (Table 13, Model 6), the effect of assessment was not significant ($F(6, 90) = 1.611; p = .153$), further confirming that the effect of assessment on trait recognition is stronger for positive traits.

Contrary to hypothesis 4, I did not find any indirect effects of intolerance with ambiguity between assessment and accuracy of recognizing traits.

SUMMARY AND CONCLUSIONS

The results from the self-report measures studies replicated the main effects of locomotion on self-enhancement and impression management in a sample of Singaporean undergraduates supporting hypotheses 1a and 1b. Results also replicated decisiveness an indirect effect of decisiveness that mediates the relationship between locomotion and self-enhancement supporting hypothesis 3a. However, I did not find a significant indirect effect of decisiveness that mediates the relationship between locomotion and impression management, so hypothesis 3b was not supported.

For self-enhancement based on trait attribution, results showed that people with stronger preference for locomotion selected more positive traits and fewer negative traits to describe themselves supporting hypothesis 1a but this effect was attenuated when people were asked to accurately describe themselves.
For self-verification, participants with stronger preference for assessment recognized more traits correctly and the effects of assessment on trait recognition were particularly strong for positive traits. In contrast, locomotors did not predict trait recognition. The results were found in both number of traits correctly recognized and in signal detection analysis, supporting hypothesis 2.

Study 1, 2 and 3 were all correlational studies and thus causal effects cannot be supported. To test for causal effects, regulatory mode was manipulated by asking participants to recall pertinent experiences in the next study.
CHAPTER 6 THE EFFECTS OF REGULATORY MODE MANIPULATION ON
SOCIALLY DESIRABLE RESPONDING (STUDY 4)

The past three studies showed that regulatory mode is related to two components of SDR. The evidence is particularly strong for decisiveness-mediated effects of locomotion on self-enhancement and for the link between assessment and self-verification. The goal of the current study is to further extend these results by examining the causal effect of regulatory mode (hypotheses 1 & 3) in an experiment that manipulates regulatory mode through recalling of pertinent experiences (Avnet & Higgins, 2003). However, the efficacy of a manipulation through the recall of personal experiences depends on the cognitive fluency of the recall. High fluency in recall evokes the perception that the recalled experiences are common, whereas low fluency in recall evokes the perception that the recalled experiences are uncommon. Therefore, I also measured cognitive fluency of recall in the current study. Thus, participants who are able to recall locomotion experiences fluently will report more self-enhancement (hypothesis 1a) and impression management (hypothesis 1b) which will be mediated by decisiveness (hypothesis 3).

METHODS

Participants

A total of 106 participants were recruited from a local public university in Singapore. The participants were compensated S$8 (US$10) for their time. Data from 21 participants were excluded because these participants did not follow instructions in the manipulations; they did not recall experiences related to locomotion or assessment. The remaining 85 participants (43 females) had a mean of 20.82 years (SD = 1.83) and most of them were of Chinese ethnicity (91%). Participants came from diverse disciplines: Business (N = 23),
engineering (N = 31), humanities, arts and social sciences (N = 17), and physical sciences (N = 14).

**Procedure**

The procedure was similar to Study 3, except that participants were exposed to a regulatory mode manipulation at the beginning of the study. Participants were randomly assigned to one of the three conditions: Locomotion (N = 28), Assessment (N = 28) and Control (N = 29). I adapted Avnet and Higgins (2003) procedure for the manipulation of regulatory mode. I asked participants to think and write down three experiences in which they showed either locomotion- or assessment-related behaviors. I gave participants three situations taken from the regulatory mode scale (Kruglanski et al., 2000). In the locomotion condition, participants were asked to recall times when they: “acted like a “doer””, “finished one project and did not wait long before starting a new one” and “decided to do something, and could not wait to get started. In the assessment condition, participants were asked to recall times when they: “compared yourselves to others”, “thought about your positive and negative characteristics”, and “critiqued work done by others or yourself”. Participants in the control condition were asked to recall: “activities you did in the past”, “food/dishes you have had”, and “places you have visited in Singapore”. After recalling these experiences, participants rated how difficult it was to generate these experiences as a measure of recall fluency.

Subsequently, participants proceeded to complete the self-report measures of SDR and NFCC. After the participants had completed the experiment, they were compensated, debriefed and thanked.

**Measures**

**NFCC.** The NFCC scales by Webster and Kruglanski (1994) used in Study 2 were revised to measure momentary instead of chronic NFCC. For example, words emphasizing
chronic tendency such as “often” and “usually” were removed from the items. Items were rated on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Decisiveness measures the urgency to make judgment and decisions (e.g., “I make important decisions quickly and confidently”). Coefficient alpha was .774. Need for structure was formed by aggregating three sub-dimensions of NFC: intolerance with ambiguity (e.g., “I’d rather know bad news than stay in a state of uncertainty”), order (e.g., “I think that having clear rules and order at work is essential for success”) and predictability (e.g., “I don’t like to go into a situation without knowing what I can expect from it”). Coefficient alpha was .800.

SDR. The SDR scale by Paulhus (1991) used in Study 1 & 2 was shortened using EFA and CFA methodology (Results are available from the author). Of the 11 items, 5 measure self-enhancement and 6 measure impression management. Items were rated on a 7-point Likert scale ranging from 1 (Not true at all) to 7 (Very true). Self-enhancement measures the participant’s claims of overly positive cognitive attributes (e.g., “I am a completely rational person”). Coefficient alpha was .583 after dropping one item. Impression management measures the extent to which the participant’s claim to have performed desirable and undesirable behaviors (e.g., “I always obey laws, even if I’m unlikely to get caught”). Coefficient alpha was .517 after dropping two items. The coefficient alpha of the combined scale was .547. As the reliability of the social desirability scale was below acceptability level, the results should be interpreted with caution.

Recall fluency. This was a single item measure asking participants to rate how difficult it was for them to describe the previous locomotion- or assessment-related experiences (e.g., “Please rate how difficult it is for you to describe the previous experiences”). The level of difficulty was rated on a 7-point Likert scale ranging from 1 (Very difficult) to 7 (Very easy) and was reverse coded.
RESULTS

Descriptive statistics and bivariate correlations for the variables are shown in Table 11.

Bivariate correlation analysis revealed that compared to participants in the control group, participants in the locomotion condition had more difficulty in recalling experiences \( (r = -.37; p < .001) \). Participants who reported higher levels of decisiveness also reported higher levels of self-enhancement \( (r = .62; p < .001) \), impression management \( (r = .29; p = .008) \) and SDR \( (r = .55; p < .001) \). Participants who reported a higher need for structure also reported more self-enhancement \( (r = .28; p = .008) \) and impression management \( (r = .32; p = .003) \).

The effects of regulatory mode on self-enhancement and impression management were tested using hierarchical multiple regression analysis. In the first step, age, and gender were entered as controls. In the second step, the target component of SDR was regressed on recall fluency and the two dummy variables created from for the regulatory mode manipulation using the control conditions as the baseline. In the third step, I included the interactions of recall fluency with each of the two dummy variables. The results are shown in Table 12 and Figure 7.

In Table 12 (Model 3), when self-enhancement was the dependent variable, the interaction terms contributed significantly to the model \( (\Delta F(2, 77) = 5.383; p = .006; \Delta R^2 = .111) \). The locomotion manipulation did not directly influence self-enhancement \( (B = 0.450, SE = 0.294, t = 1.529; p = .130) \). However, recall fluency significantly moderated the...
effects of the locomotion manipulation on self-enhancement ($B = 0.880, SE = 0.296, t = 2.970; p = .004$). I plot the interactions based on Aiken and West (1991). As shown in Figure 7 (Panel A), considering fluency ($B = -0.116, SE = 0.181, t = -0.639; p = .524$) and locomotion, the interaction suggested that participants who easily recalled the locomotion-related experiences reported higher levels of self-enhancement, supporting hypothesis 1a.

In Table 12 (Model 6), when impression management was the dependent variable, the interaction term did not contribute significantly to the model ($\Delta F(2, 77) = 1.003; p = .372; \Delta R^2 = .024$). Locomotion did not directly influence impression management ($B = 0.420, SE = 0.327, t = 1.283; p = .203$). Recall fluency did not significantly moderate the effects of locomotion manipulation on impression management ($B = 0.427, SE = 0.330, t = 1.293; p = .200$), failing to support hypothesis 1b.

In Table 12 (Model 9), when SDR was the dependent variable, the interaction terms contributed significantly to the model ($\Delta F(2, 77) = 4.340; p = .016; \Delta R^2 = .086$). Participants in both locomotion ($B = 0.890, SE = 0.235, t = 3.781; p < .001$) and assessment ($B = 0.519, SE = 0.216, t = 2.396; p = .019$) conditions reported more SDR compared to those in the control condition. Recall fluency moderated the effect of the locomotion manipulation on SDR ($B = 0.593, SE = 0.237, t = 2.499; p = .015$). As shown in Figure 7 (Panel C), considering recall fluency ($B = 0.082, SE = 0.145, t = 0.567; p = .572$) and locomotion, participants who recalled the locomotion-related experiences also easily reported more SDR.

No indirect effects of decisiveness and need for structure were significant. Since the interaction between recall fluency and locomotion was significant, I tested the moderation effect of recall fluency on the indirect effects of decisiveness and need for structure using Preacher and Hayes’ (2008) procedure. Age, gender, and the alternate regulatory mode variables were included as control variables. Analyses were conducted using SPSS 20.0 with
PROCESS.SPS (Hayes, 2013). Bias-corrected (BC) 95% confidence intervals (CI) were constructed from 20,000 bootstrap samples. The results are shown in Table 13, Figure 8.

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Insert Table 13 here
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Insert Figure 8 here
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Mediation analysis conducted using ordinary least squares path analysis revealed that locomotion has its indirect effect on the self-report measures of self-enhancement through decisiveness only when recall fluency was high, supporting hypothesis 3a. As shown in Figure 8 (Panel A) and Table 13, locomotion did significantly influence decisiveness ($B = 0.635$, $SE = 0.297$, $t = 2.141$; $p = .035$, BC: 0.044, 1.225) but not need for structure ($B = -0.044$, $SE = 0.169$, $t = -0.269$; $p = .797$, BC: -0.379, 0.292). Participants with high levels of decisiveness significantly reported higher levels of self-enhancement ($B = 0.531$, $SE = 0.084$, $t = 6.317$; $p < .001$, BC: 0.364, 0.699). Participants with higher need for structure marginally reported higher levels of self-enhancement ($B = 0.283$, $SE = 0.158$, $t = 1.791$; $p = .077$, BC: -0.032, 0.597). More importantly, the interaction of locomotion and recall fluency on decisiveness was significant and positive ($B = 0.917$, $SE = 0.288$, $t = 3.178$; $p = .002$, BC: 0.342, 1.491) although this interaction on need for structure was not significant ($B = 0.065$, $SE = 0.164$, $t = 0.394$; $p = .695$, BC: -0.262, 0.391). The 95% CI for the indirect effect of recall fluency on decisiveness based on 20,000 bootstrap samples was above zero only when recall fluency was 1SD above the mean (0.349 to 1.664) and when it was at the mean level (0.057, 0.736) but included zero when it was 1SD below the mean (-0.651, 0.265). The 95% CI for the indirect effect of need for structure included zero for all levels of recall fluency. The locomotion manipulation did not significantly influence self-enhancement independent of the effects of decisiveness and need for structure ($B = -0.010$, $SE = 0.193$, $t = -0.051$; $p = .960$, BC: -0.393, 0.374).
As shown in Figure 8 (Panel B) and Table 13, locomotion has its indirect effect on the self-report measures of impression management through decisiveness only when recall fluency was high, supporting hypothesis 3b. Locomotion did significantly influence decisiveness ($B = 0.635, SE = 0.297, t = 2.141; p = .035, BC: 0.044, 1.225$) but not need for structure ($B = -0.044, SE = 0.169, t = -0.269; p = .797, BC: -0.379, 0.292$). Participants with high levels of decisiveness significantly reported higher levels of impression management ($B = 0.245, SE = 0.105, t = 2.339; p = .022, BC: 0.037, 0.454$). Participants with higher need for structure significantly reported higher levels of impression management ($B = 0.476, SE = 0.197, t = 2.415; p = .018, BC: 0.084, 0.868$). More importantly, the interaction of locomotion and recall fluency on decisiveness was significant and positive ($B = 0.917, SE = 0.288, t = 3.178; p = .002, BC: 0.342, 1.491$) although this interaction on need for structure was not significant ($B = 0.065, SE = 0.164, t = 0.394; p = .695, BC: -0.262, 0.391$). The 95% CI for the indirect effect of recall fluency on decisiveness based on 20,000 bootstrap samples was above zero only when recall fluency was 1SD above the mean (0.047 to 0.917) and when it was at the mean level (0.003, 0.431) but included zero when it was 1SD below the mean (-0.651, 0.265). The 95% CI for the indirect effect of need for structure included zero for all levels of recall fluency. The locomotion manipulation did not significantly influence impression management independent of the effects of decisiveness and need for structure ($B = 0.300, SE = 0.240, t = 1.249; p = .215, BC: -0.178, 0.778$).

Nonetheless, locomotion had its indirect effect on SDR through decisiveness only when recall fluency was high. Figure 8 (Panel C) and Table 13 show that locomotion significantly and positively affected decisiveness ($B = 0.635, SE = 0.297, t = 2.141; p = .035, BC: 0.044, 1.225$) but not need for structure ($B = -0.044, SE = 0.169, t = -0.259; p = .797, BC: -0.379, 0.292$). Participants with higher levels of decisiveness reported more SDR ($B = 0.439, SE = 0.072, t = 6.089; p < .001, BC: 0.295, 0.582$). However, need for structure did
not predict SDR \((B = -0.067, SE = 0.135, t = -0.493; p = .624, BC: -0.336, 0.203)\). More importantly, the interaction of locomotion and recall fluency had significant positively effect on decisiveness \((B = 0.917, SE = 0.288, t = 3.178; p = .002, BC: 0.342, 1.491)\), although this interaction effect on need for structure was not significant \((B = 0.065, SE = 0.164, t = 0.394; p = .695, BC: -0.262, 0.391)\). The 95% CI for the indirect effect of decisiveness on SDR based on 20,000 bootstrap samples was above zero when recall fluency was at the grand mean level \((0.039, 0.645)\) or 1SD above the mean \((0.295 to 1.381)\) but not when recall fluency was 1SD below the mean \((-0.507, 0.247)\). The 95% CI for the indirect effect on need for structure on SDR included zero for all levels of recall fluency. The locomotion manipulation significantly and positively influenced SDR independent of the effects of decisiveness and need for structure \((B = 0.360, SE = 0.165, t = 2.1821; p = .032, BC: 0.032, 0.689)\).

**SUMMARY AND CONCLUSIONS**

Recall fluency moderated the mediation of the need to be decisive between locomotion and the two components of SDR: self-enhancement and impression management. As compared to control group, when participants recalled locomotion-related experiences easily, they indicated higher need to be decisive, which in turn increased their report engaging in self-enhancement, as well as, impression management.

Most of the hypotheses were supported in the past four studies. In the next study, I test the effects of regulatory mode on citizenship behaviors, an important work behavior in the organization that aids performance, using working adults.
CHAPTER 7 THE EFFECTS OF REGULATORY MODE ON CITIZENSHIP BEHAVIORS (STUDY 5)

Citizenship behaviors are important for effective organizational functioning (Bolino & Turnley, 2003) and employees engage in some form of self-presentation while at work (Arkin & Shepperd, 1989; Baumeister, 1989). As undergraduate students studying full-time in university may not relate well to these behaviors, I recruited full-time working adults who have to contend with issues arising from working with others, meeting expectations and performance to test the relationships between regulatory mode and citizenship behaviors in this study (hypotheses 5 & 6). Similar to the previous studies, I replicate the direct effects of regulatory mode on the two components of SDR (hypothesis 1), and test for the mediating role of the two components of SDR (hypothesis 7).

METHODS

Participants and Procedure

A sample of 500 working adults located in the US were recruited online using Amazon Mechanical Turk. Informed consent was sought. Confidentiality of the respondents was assured. Participants were directed to Qualtrics to complete an online questionnaire and compensated US$1. Thirty-seven participants were excluded because they were not full time employees, did not speak English as the first language or did not live in the US, leaving 463 participants (241 females) in the analysis. Participants’ average age was between 26-35 years and 36-45 years. Most of them (84.0%) were white Caucasians. The average total working experience was 13.05 years ($SD = 8.90$), with an average of 6.70 years ($SD = 5.00$) with their current employer. Half of the participants (50.5%) had at least a college degree. Less than half of the participants (42.1%) were holding managerial positions. Most participants (75.8%) reported working in the private sector. In this study, I focused on the altruism and
conscientiousness dimensions of OCB developed by Organ (1988) to capture affiliative citizenship behaviors, because the contents of these dimensions fit the description of affiliative citizenship behaviors defined by Van Dyne and her colleagues (1995). I also focused on the rational issue selling, taking charge and voice dimensions of proactive behaviors studied by Grant and his colleagues (2009) to capture challenging citizenship behaviors. These dimensions fit the description of challenging citizenship behaviors as suggested by Van Dyne and her colleagues (1995).

**Measures**

**Regulatory mode.** Similar to Study 1, 2 and 3, I measured regulatory mode with a measure developed by Kruglanski et al. (2000). The scale measures two regulatory mode: Assessment (12 items) and locomotion (12 items). Items were rated on a 6-point Likert scale ranging from 1 (Strongly disagree) to 6 (Strongly agree). Assessment measures the participants’ orientation towards critical evaluation of the available means for goal pursuits (e.g., “I often critique work done by myself and others”). Locomotion measures the participant’s orientation towards goal progress (e.g., “I am a “doer””). Coefficient alpha was .851 for assessment and .880 for locomotion.

**Affiliative citizenship behaviors.** This OCB scale used in the current study was developed by Organ (1988) that measures five facets of OCB. Only two facets which represented affiliative citizenship behaviors as suggested by Van Dyne and her colleagues (1995) were included in the current study: Altruism (five items) (e.g. “Helps others who have heavy work loads”) and Conscientiousness (six items) (e.g. “Does not take extra breaks”) were utilized. A 7-point Likert scale was used, which ranged from 1 (Strongly disagree) to 7 (Strongly agree). The scale had acceptable reliability ($\alpha = .898$).

**Challenging citizenship behaviors.** This scale used in the current study (Grant et al., 2009) measures three facets of challenging citizenship behaviors: Rational issue selling
(three items from Kipnis and Schmidt (1980) (e.g., “Used logic to convince the supervisor”), taking charge (three items from Morrison and Phelps (1999) (e.g., “This person tries to bring about improved procedures for the work unit or department”) and voice (four items from Van Dyne and LePine (1998) (e.g., “This particular co-worker speaks up and encourages others in this groups to get involved in issues that affect the group”). A 5-point Likert scale was used: Taking charge and voice (1 (Very infrequently) to 5 (Very frequently)), rational issue selling (1 (Strongly disagree) to 5 (Strongly agree)). The reliability of the scale was high ($\alpha = .925$).

**SDR.** The SDR scale by Paulhus (1991) used in Study 1 and 2 was shortened using EFA and CFA methodology (Results available from the author). Of the 11 items, 5 measure self-enhancement and 6 measure impression management. Items were rated on a 7-point Likert scale ranging from 1 (Not true at all) to 7 (Very true). Self-enhancement measures the participant’s claims of overly positive cognitive attributes (e.g., “I am a completely rational person”). Coefficient alpha was .788. Impression management measures the extent to which the participant’s claim to have performed desirable and undesirable behaviors (e.g., “I always obey laws, even if I’m unlikely to get caught”). Coefficient alpha was .742. The coefficient alpha of the combined scale was .812.

**RESULTS**

Descriptive statistics and bivariate correlations for all variables are shown in Table 14.

Insert Table 14 about here

Bivariate correlation analysis showed that individuals with stronger preference for locomotion significantly reported more affiliative citizenship behaviors ($r = .62, p < .001$), challenging citizenship behaviors ($r = .47, p < .001$), self-enhancement ($r = .41, p < .001$) and
impression management \( (r = .29, p < .001) \). However, individuals with stronger preference for assessment significantly reported more challenging citizenship behaviors \( (r = .14, p = .003) \), but less self-enhancement \( (r = -.32, p < .001) \) and impression management \( (r = -.22, p < .001) \). Individuals who reported more affiliative citizenship behaviors also reported more self-enhancement \( (r = .29, p < .001) \) and impression management \( (r = .37, p < .001) \). Similarly, individuals who reported more challenging citizenship behaviors also reported more self-enhancement \( (r = .30, p < .001) \) and impression management \( (r = .14, p = .002) \).

Hierarchical multiple regression analysis were used to test the main effects on citizenships behavior. In the first step, for each dependent variable, gender, and total work experience were entered as controls. In the next step, the main effects of the self-enhancement, impression management and the two regulatory mode variables were added. The regression results are summarized in Table 15.

As shown in Table 15 (Model 2), when challenging citizenship behaviors was regressed on the independent variables, the independent variables contributed significantly to the model \( (\Delta F(4,456) = 39.821, p < .001, \Delta R^2 = .257) \). Participants who reported higher self-enhancement reported more challenging citizenship behaviors \( (B = 0.134, SE = 0.032, t = 4.200, p < .001) \). Participants who had stronger preference for locomotion reported more challenging citizenship behaviors \( (B = 0.375, SE = 0.046, t = 8.102, p < .001) \) supporting hypothesis 5a. Participants who had stronger preference for assessment reported more challenging citizenship behaviors \( (B = 0.163, SE = 0.041, t = 4.007, p < .001) \), supporting hypothesis 6.

As shown in Table 15 (Model 4), when affiliative citizenship behaviors was regressed on the independent variables, the independent variables contributed significantly over the
control variables ($\Delta F(4,456) = 81.193, p < .001, \Delta R^2 = .404$). Participants who reported higher impression management reported more affiliative citizenship behaviors ($B = 0.155, SE = 0.030, t = 5.109, p < .001$). Participants who had stronger preference for locomotion reported more affiliative citizenship behaviors ($B = 0.700, SE = 0.050, t = 14.070, p < .001$) supporting hypothesis 5b.

**Mediating Role of SDR**

I tested the indirect effects of impression management and self-enhancement motives between regulatory mode, and citizenship behaviors using two types of analysis. First, I test the indirect effects using multiple mediation analysis (Preacher & Hayes, 2008). The indirect effects were analyzed separately for locomotion and assessment. Second, I repeated the results by testing the indirect effects using structural equation modeling. For all analysis, gender, total work experience, and the alternate regulatory mode were used as controls. I first report the results for the multiple mediation analysis, followed by the structural equation modeling analysis.

The indirect effects analysis was conducted using Preacher and Hayes’ (2008) procedure which extrapolating estimates of direct and indirect effects. Analyses were conducted using SPSS 20.0 with INDIRECT.SPS (Hayes, 2013). Bias-corrected and accelerated (BCa) 95% confidence intervals (CIs) were constructed using 20,000 bootstrap samples. The results are shown in Figure 9.

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Insert Figure 9 about here
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Locomotion positively and indirectly influenced challenging citizenship behaviors through its effects on self-enhancement supporting hypothesis 7a. As shown in Figure 9 (Panel A), participants with greater preference for locomotion reported higher self-enhancement ($B = 0.691, SE = 0.063, t = 10.956, p < .001$) and higher impression
management ($B = 0.474, SE = 0.071, t = 6.70, p < .001$), supporting hypotheses 1a and 1b respectively. Participants with higher self-enhancement reported more challenging citizenship behaviors ($B = 0.126, SE = 0.032, t = 3.946, p < .001$). More importantly, the 95% CI for the indirect effect of self-enhancement ($B = 0.087, SE = 0.028$) based on 20,000 bootstrap samples was above zero (0.038 to 0.149). Locomotion increased challenging citizenship behaviors independent of the effects of self-enhancement and impression management ($B = 0.385, SE = 0.046, t = 8.347, p < .001$).

Locomotion positively and indirectly influenced affiliative citizenship behaviors through its effects on participants’ impression management supporting hypothesis 7b. As shown in Figure 9 (Panel B), participants with greater preference for locomotion reported higher self-enhancement ($B = 0.691, SE = 0.063, t = 10.956, p < .001$) and higher impression management ($B = 0.474, SE = 0.071, t = 6.702, p < .001$), supporting hypotheses 1a and 1b respectively. Participants with higher impression management reported more affiliative citizenship behaviors ($B = 0.159, SE = 0.031, t = 5.161, p < .001$). More importantly, the 95% CI for the indirect effect of impression management ($B = 0.075, SE = 0.018$) based on 20,000 bootstrap samples was entirely above zero (0.045 to 0.116). The influence of locomotion on affiliative citizenship behaviors was significant and positive independent of the effects of self-enhancement and impression management ($B = 0.704, SE = 0.050, t = 14.057, p < .001$).

I accounted for measurement error using structural equation modeling. This analysis was performed using LISREL 8.80 (Jöreskog & Sörbom, 1996). Prior to the analysis, I parceled the items using homogenous parceling (Coffman & MacCallum, 2005) to reduce the number of indicators. I performed the analysis using two steps. First, a confirmatory factory analysis (CFA) was performed to test the measurement model for fit. Subsequently, the full
structural model was analyzed. I first report results for the measurement model, followed by the results for the structural model.

For the CFA, I left out demographic variables of gender and total work experience. The CFA results suggested an acceptable fit \( \chi^2(120) = 488.122, \text{RMSEA} = .082 \) (90% C.I. = .074, .089), SRMR = .059, CFI = .96, NNFI = .95 based on cutoff values recommended by Hu and Bentler (1999), and Schreiber, Nora, Stage, Barlow and King (2006), except for RMSEA. All factor loadings were significant and sizeable (mean estimated standardized loading = .87).

With the measurement model showing acceptable fit, I proceeded to test the structural model for the indirect effects of the two components of SDR. The initial model was structured in the following manner. The two regulatory modes were both linked to the two components of SDR and citizenship behaviors. Impression management was linked to affiliative citizenship behaviors only. Self-enhancement was linked to challenging citizenship behaviors only. Gender and total work experience were included as control variables in citizenship behaviors. Impression management and self-enhancement, as well as, affiliative and challenging citizenship behaviors were allowed to covary based on correlational results in Table 14. The fit for the initial structural model was acceptable \( \chi^2(156) = 557.866, \text{RMSEA} = .075 \) (90% C.I. = .068, .081), SRMR = .064, CFI = .96, NNFI = .95.

Because the fully mediated models are nested under the partially mediated models, I compared these two models directly. The model with impression management only fully mediating the relationship between assessment and affiliative citizenship behaviors remained statistically equivalent with the previous model \( \chi^2(157) = 558.836, \text{RMSEA} = .074 \) (90%
C.I. = .068, .081), SRMR = .064, CFI = .96, NNFI = .95, EVCI = 1.439, AIC = 664.836, \( \Delta \chi^2(1) = 0.970, p = .325 \). Thus, I report the results for this model as shown in Figure 10 (Panel A).

Locomotion positively and indirectly influenced challenging citizenship behaviors through self-enhancement \((B = 0.108, SE = 0.038, Z = 2.874, p = .004)\) supporting hypothesis 7a and affiliative citizenship behaviors through impression management \((B = 0.058, SE = 0.019, Z = 3.001, p = .003)\) supporting hypothesis 7b. Participants with greater preference for locomotion also reported more challenging citizenship behaviors \((B = 0.471, SE = 0.068, Z = 6.941, p < .001)\), and affiliative citizenship behaviors \((B = 0.761, SE = 0.061, Z = 12.509, p < .001)\), supporting hypotheses 5a and 5b respectively independent of the effects of self-enhancement and impression management.

Assessment negatively and indirectly influenced challenging citizenship behaviors through self-enhancement \((B = -0.075, SE = 0.027, Z = -2.798, p = .005)\) and affiliative citizenship behaviors through impression management \((B = -0.040, SE = 0.014, Z = -2.826, p = .005)\). Participants with greater preference for assessment reported more challenging citizenship behaviors \((B = 0.154, SE = 0.050, Z = 3.096, p = .002)\) independent of the effects of self-enhancement and impression management supporting hypothesis 6.

**Testing of Alternative Model**

I tested the alternative hypothesis with the two components of SDR affecting citizenship behaviors through the indirect effects of regulatory modes. The results are shown in Figure 11.

The competing indirect effect of locomotion between self-enhancement and challenging behaviors \((B = 0.086, SE = 0.018)\) was similar to the hypothesized indirect effect.
of self-enhancement between locomotion and challenging behaviors \( (B = 0.087, SE = 0.028) \). However, the competing hypothesized indirect effect of locomotion between impression management and affiliative citizenship behaviors \( (B = 0.050, SE = 0.024) \) was weaker than the hypothesized indirect effect of impression management between locomotion and affiliative citizenship behaviors \( (B = 0.075, SE = 0.018) \).

I also assessed model fit of the competing indirect effects of two components of SDR on citizenship behaviors through regulatory mode using LISREL 8.80 (Jöreskog & Sörbom, 1996) as shown in Figure 10 (Panel B). Compared to the hypothesized model, the fit of the competing model was worse \( \chi^2(157) = 592.665, \text{RMSEA} = .078 \text{ (90\% C.I. = .071, .084)}, \text{SRMR} = .078, \text{CFI} = .95, \text{NNFI} = .95, \text{EVCI} = 1.512, \text{AIC} = 698.665 \).

Thus, the results suggest that the hypothesized model is much superior compared to the competing model.

**SUMMARY AND CONCLUSIONS**

In this study, I found support for the main effects of regulatory mode on citizenship behaviors. Locomotion was positively associated with affiliative and challenging citizenship behaviors, supporting hypotheses 5a and 5b. Assessment was positively associated with challenging citizenship behaviors, supporting hypothesis 6.

There was also support for the indirect effects of self-enhancement and impression management. Locomotion positively and indirectly influenced challenging citizenship behaviors through its effects on self-enhancement, supporting hypothesis 7a. Locomotion also showed similar influence on affiliative citizenship behaviors through its effects on impression management, supporting hypothesis 7b. Assessment negatively and indirectly influenced challenging citizenship behaviors through its effects on self-enhancement.
CHAPTER 8 DISCUSSION AND IMPLICATIONS OF FINDINGS

In this chapter, I will first summarize the findings from the five studies. Second, I will discuss the findings related to the major outcome measures: self-enhancement, impression management and citizenship behaviors. I will next discuss the implications of the findings for understanding the two components of SDR and citizenship behaviors. Finally, I will discuss the limitations and future research directions.

SUMMARY OF SIGNIFICANT FINDINGS

The summary of the results across the five studies are tabulated in Table 16.

As shown in Table 16, across all studies, locomotion consistently showed a positive relationship with self-enhancement. However, the relationship between locomotion and impression management was less consistent (The recall of locomotion experiences did not influence the report of impression management). First, participants with greater preference for locomotion had a greater tendency to select more positive traits and fewer negative traits to describe themselves, although this effect was attenuated when participants were asked to accurately describe themselves. There is also consistent support that locomotion influenced self-enhancement through decisiveness. Interesting, assessment was negatively related to self-enhancement and impression management only among US participants.

The hypothesized relationship between assessment and self-verification has received some support. People with greater preference for assessment recalled more self-related traits but the effect was stronger for positive traits than negative traits. Contrary to my hypothesis, need for structure does not mediate the link between assessment and recognition accuracy.
With respect to citizenship behaviors, I found support for all the hypothesized relationships. Locomotion indirectly influenced challenging citizenship behaviors through self-enhancement and indirectly influenced affiliative citizenship behaviors through impression management. Both of the indirect relationships were positive. Assessment showed a positive relationship with challenging citizenship behaviors. Interestingly, assessment negatively and indirectly influenced challenging citizenship behaviors through self-enhancement.

THE RELATIONSHIP BETWEEN REGULATORY MODE AND SOCIALLY DESIRABLE RESPONDING

The results provided consistent support only for locomotion and self-enhancement, and decisiveness mediated this relationship. This result provides an answer to RQ1 on how self-regulation of goal pursuit influences SDR. Based on our theoretical model, self-enhancement can bolster self-worth, increase well-being (Taylor & Brown, 1988; Taylor et al., 2003a, 2003b), and support pursuit of achievement (Paulhus & John, 1998). Since self-enhancement is linked to agency values, it can be a powerful driver of behaviors (Hogan, 1983). From this perspective, self-enhancement should be connected to locomotion, because locomotion is concerned with quick progress (Kruglanski et al., 2000) so that one can attain the current goal quickly and move on to another more challenging goal. To individuals with a strong preference for locomotion, feeling capable can motivate them to charge ahead and to achieve their goal expediently. Given the need for quick movement to goals that defines the locomotion mode, not surprisingly, the need to be decisive mediates the relationship between locomotion and self-enhancement.

I expect locomotion to be related to impression management and I did find consistent support for this relationship in the four correlational studies. However, the lack of the
manipulation effect of locomotion mode on impression management suggested that causal effects cannot be inferred. People who need to achieve their goals quickly may also desire social capital that enables them to attain their goals. One reason for the lack of this manipulation effect is the context of data collection in during that study. Responding to surveys in solitude may not have reminded individuals with a strong preference for locomotion, the value of building social capital through impression management.

Meanwhile, there is some evidence assessment is negatively related to social desirability. This relationship seemed plausible on two accounts. First, assessment is positively associated with fear of failure, social anxiety, and low self-esteem (Kruglanski et al., 2000). Being more fearful of failure, social anxious and less self-confident may lead assessors to not engage in self-enhancement and impression management. Second, assessors often engage in over-correction due to their self-critical nature (Appelt, Zou, & Higgins, 2010). As Study 3 shows, assessors are also more concerned with accuracy. They may be strongly motivated to correct their biases, leading them to refrain from self-enhancement biases and impression management. The need for accuracy and the tendency to engage in bias correction may explain the negative relationships between assessment and the two components of SDR. However, the negative relationship between assessment and the two components of SDR was found in the US only. Further replication study in Singapore and other parts of Asia may help to clarify this relationship.

The hypothesized relationship between assessment and self-verification received some support. It seems that assessors process information more deeply and hence remembered them better when making judgments about the self. Interestingly, this relationship was stronger for positive traits than for negative ones, probably because assessors are particularly concerned about avoiding making false positive judgments, which
reflects a tendency to correct for the prevalent self-enhancement in self-perception. This possibility merits future investigation.

**THE RELATIONSHIP BETWEEN REGULATORY MODE AND CITIZENSHIP BEHAVIORS**

Recall that self-enhancement is linked to agency values of “personal striving, growth and achievement” and impression management is linked to communion values that is related to “relationships, intimacy and benefiting of others” (Paulhus & John, 1998, p. 1039). The findings between the two components of SDR and citizenship behavior support the different value associations of self-enhancement and impression management. Challenging citizenship behaviors occur relatively infrequently because they disrupts regular processes and therefore may upset employees who are used to follow those processes or the benefits associated with following these processes (Van Dyne & LePine, 1998). Therefore, self-enhancement and its attendant self-confidence enable employees to raise their self-efficacy in participating in challenging citizenship behaviors and enjoy the social esteem when their challenging citizenship behaviors results in positive organization outcomes (Stevens, 1997).

In contrast, affiliative citizenship behaviors are more relational. It requires taking the perspectives of one’s coworkers. This orientation is not compatible with that of the self-enhancers who are more concerned about their superior capability. Instead, impression management, which is concerned with making the self look good from the others’ viewpoint, should support affiliative citizenship behaviors. Although past research had linked impression management with opportunistic goals such as social capital accumulation (Bolino et al., 2002; Bowler & Brass, 2006), impression management may also be associated with communal, prosocial behavior such as affiliative citizenship behaviors. Indeed, impression
management is linked to a moralistic bias, those engaging in impression management display saint-like characteristics (Paulhus & John, 1998).

In summary, citizenship behaviors are not merely instrumental behaviors. Like social desirability, people do not just engage in citizenship behaviors for psychological or instrumental benefits. They do it because they fit their self-regulatory preferences. Depending on whether they prefer locomotion or assessment, individuals may engage in different components of SDR, which are accompanied by different ways of expressing extra-role behaviors in the organization. To the individuals pursuing their valued goals, it does not matter whether these actions will benefit the self psychologically or instrumentally. They will perform citizenship behaviors as long as it is compatible with their regulatory mode. When people want to get things done quickly (they prefer locomotion), they will want to think positively about the self (Kruglanski et al., 2000). An unattended consequence is that they will also develop a sense of agency that increases the self-efficacy and likelihood of engaging in challenging citizenship behaviors. Thus, locomotors engage in challenging citizenship behaviors indirectly through self-enhancement. Likewise, people who want to get things done quickly can sustain their efforts more easily if they feel that others appreciate them and regard them positively. An unintended consequence is that people will have a strong preference for locomotion will engage in impression management which in turn supports affiliative citizenship behavior. In contrast, when people want to get things done accurately (they prefer assessment), they want to do the right thing even if that requires challenging the status quo. Thus, this moralistic bias may increase the motivation to engage in challenging citizenship behaviors. Taken together, these findings answer RQ2 on the effects of the self-regulation of goal pursuits on citizenship behaviors.
IMPLICATIONS

This research has both theoretical and practical implications. One theoretical implication concerns the debate between self-enhancement and self-verification. Research suggests that both self-enhancement and self-verification can produce psychological benefits (Y.-h. Kim et al., 2010; Taylor et al., 2003a, 2003b). A question is who will benefit from self-enhancement and who will benefit from self-verification. My research suggests that self-enhancement will benefit locomotors more than assessors, whereas self-verification will benefit assessors more although future research is needed to test this hypothesis.

In relation to clinical psychology, one study showed that people who are depressive tend to have low locomotion or high assessment (Hong, Tan, & Chang, 2004). This pattern of regulatory mode was also found in borderline personality disorder (Bornovalova, Fishman, Strong, Kruglanski, & Lejuez, 2008). Since self-enhancement is associated with well-being, and locomotion is positively related to self-enhancement, encouraging people to become more locomotive may be helpful to individuals with these clinical disorders. However, more research is required to test this possibility.

Regulatory mode can be a state or a trait. As a trait, it would be interesting to understand what kind of stable ecology and dispositions would support locomotion, and what kind of stable ecology and dispositions would support assessment. Viewed as a state, it would be interesting to examine what kind of task and task contexts would promote locomotion and assessment. For example, if regulatory mode changes across tasks and task contexts, would the employees’ self-presentation styles and citizenship behaviors also change correspondingly? Will employees tend to withdraw affiliative citizenship behaviors when accuracy and accountability are more emphasized in the task? These are important questions to answer in future research.
Another theoretical implication is on the issue of whether SDR is faking. From the perspective of regulatory mode, the two components of SDR is associated with the means individuals choose to regulate their goal pursuits, and not necessarily with their intention to deceive others. My results do support the link between locomotion and impression management, which is more closely tied to faking (Holden & Passey, 2009). Nonetheless, if a major component of SDR is linked to the preference for regulatory mode, SDR should not be treated as merely a response bias or the tendency to deceive. Instead, it may capture important motivational processes with important outcomes. For example, self-deceptive enhancement as a tendency to believe in the self and having unrealistically positive qualities may be a strategy locomotors use to maintain optimism in making quick progress in goal pursuits. Because SDR has important implications both for the self through its links to self-regulation and for others through its associations with citizenship behaviors, organization seeking talents who are driven by goal progress and are willing to display citizenship behaviors may want to select those who report high socially desirable responses instead of screening out these candidates because they “fake” their responses to look good.

On the other hand, when lowering SDR is a desirable goal in evaluation, this goal can be achieved in part by emphasizing the assessment mode. For example, to obtain objective assessment of clients’ physical and psychological conditions in clinical diagnosis, clinicians need to understand that valuing getting a speedy evaluation and diagnosis may inflate SDR in the clients’ responses, whereas highlighting the importance of doing right would reduce the SDR biases. Recent research had indeed shown that it is possible to strengthen the preference for the assessment mode through the use of warnings to candidates in the personnel assessment measures (Converse et al., 2008; McFarland, 2003). Nonetheless, when using this warnings to increase the preference for assessment, caution is needed to ensure that the inflated preference for assessment would not lead to over-correction (Appelt et al., 2010).
In citizenship behavior research, impression management has been linked to organizational politics and Machiavellianism (Fandt & Ferris, 1990; Ferris, Treadway, Perrewé, Brouer, & Douglas, 2007; Gardner & Martinko, 1988; Jones & Pittman, 1982). When viewed from a regulatory mode perspective, people may not intend impression management to be manipulative tactics. Impression management and its attendant affiliative citizenship behaviors could be expression of that the employees are eager to get things done and to feel assured from social feedback that they are on the right track. Likewise, some employees may be motivated to engage in challenging citizenship behaviors because they want to do the right thing for the organization. Therefore, managers and consultants should be aware that even though employees are motivated to perform citizenship behaviors, their intentions may differ depending on the employees’ preferred regulatory mode.

LIMITATIONS

Like all research, there are several limitations to this dissertation. First, many of my findings are based on self-reports. To address this limitation, I have developed a behavioral task with performance measures to test my hypotheses. Nonetheless, future studies that use more diverse methods are welcome. For example, future studies on the link between regulatory mode, the two components of SDR and citizenship behaviors can use observer ratings of citizenship behaviors as the dependent variables.

Second, I cannot infer direction of causality for many of the proposed relationships, because most of the findings are correlational. Study 4 shows that it is possible to experimentally manipulate regulatory mode. However, this manipulation also has its limitation because recall fluency can undermine the efficacy of the manipulation. Future research should explore new techniques for manipulating regulatory mode to establish the causal effects of regulatory mode in experimental studies.
Third, given the low reliability of the measures of self-enhancement and impression management in Study 3 and 4, caution should be taken when these results are interpreted. Fortunately, I found convergent results for self-enhancement in Study 3 using behavioral measure of self-enhancement. Based on this measure and other studies in the current research, there seems to be consistent support for the link between regulatory mode and the two components of SDR. Nonetheless, future research is needed to further verify these relationships with more reliable measures of SDR (especially in Asia).

Fourth, I used NFCC as a motivational variable in the current study. However, NFCC can also be as a disposition. Thus, it is possible that NFCC is the antecedents of regulatory mode. In Study 2, I reported some evidence to test for the robustness of my proposed causal direction. In Study 4, I showed evidence from an experimental study on the causal impact of regulatory mode. Nonetheless, in future research, to fully explore the two possible causal directions, it would be interesting to see if manipulating NFCC would also alter the preference for locomotion versus assessment.

Fifth, past research have reported that the decisiveness sub-scale in NFCC scale measures both ability and need (Roets & Van Hiel, 2007). However, this distinction may not be an issue in these studies, because the decisiveness sub-scale is reliable. Rating high on decisiveness indicate high need and ability. Nonetheless, using items that measure need only should strengthen the hypothesized relationship between locomotion and decisiveness. This is a good topic for future research.

Six, in most studies, I only measured individual differences in regulatory mode. Study 4 seeks to address this issue by manipulating regulatory mode in the laboratory. Nonetheless, regulatory mode can also be environmentally induced through organizational culture and task structuring. For example, cultures or functions that require accuracy such as in the oil and gas industry and safety engineering may lead employees to prefer assessment
more. Future research should test these possibilities and the implications of these ecological factors for citizenship behaviors.

Seventh, I investigate the relationships of assessment and locomotion separately. Since both assessment and locomotion are separate motivational preferences, individuals can be high or low in both, or high in one and low in the other (Kruglanski et al., 2000). The interaction of assessment and locomotion is not well understood and merits future investigation.

Last, given the convenience samples recruited from MTurk were used in several of my studies. Future studies are needed to test the generalizability of my results with other samples of working adults.

CONCLUSIONS

In conclusion, my findings suggest if individuals high in locomotion mode want to get things done become are more decisive, they tend to believe that they possess unrealistic positive qualities. In contrast, individuals high in assessment mode want to get things done right, tend to process information about the self more thoroughly and have better memory of the information they studied. These tendencies have important implications for understanding citizenship behaviors at work. Locomotors believe that they have positive characteristics and want to have positive impressions on others, therefore they engage in more citizenship behaviors that challenge organizations to change and help their coworkers. In contrast, assessors want to do the right things and are more prepared to engage in challenging citizenship behaviors and the reasons for doing may differ from locomotors.

The present research takes a goal-oriented perspective to understand who are more likely to display self-enhancement and impression management and the motivation behind their preferences. Hopefully, the results shed light on the motivational significance of self-
enhancement and impression management for the self (via its connection to regulatory mode) and for others (via its impact on citizenship behaviors).
TABLES
### Table 1

**Descriptive Statistics and Correlations Between Variables (Study 1)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Locomotion</td>
<td>4.18</td>
<td>0.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Assessment</td>
<td>4.05</td>
<td>0.71</td>
<td>.23**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Self-Enhancement</td>
<td>4.18</td>
<td>0.61</td>
<td>.36***</td>
<td>-.22**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Impression Management</td>
<td>3.78</td>
<td>0.76</td>
<td>.20**</td>
<td>-.11</td>
<td>.19**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. SDR</td>
<td>3.98</td>
<td>0.53</td>
<td>.35***</td>
<td>-.20**</td>
<td>.71***</td>
<td>.83***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Prevention</td>
<td>3.34</td>
<td>0.84</td>
<td>.05</td>
<td>.12</td>
<td>.13</td>
<td>.28***</td>
<td>.27***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Promotion</td>
<td>3.79</td>
<td>0.68</td>
<td>.52***</td>
<td>-.11</td>
<td>.42***</td>
<td>.10</td>
<td>.31***</td>
<td>.06</td>
<td></td>
</tr>
</tbody>
</table>

**Note.**  
N = 206. Cronbach’s alpha appears in parentheses.  
†p < .10.  
*p < .05.  
**p < .01.  
***p < .001.
### Table 2

**Unstandardized Regression Results (Study 1)**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Self-Enhancement</th>
<th>Impression Management</th>
<th>SDR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
</tr>
<tr>
<td>Constant</td>
<td>2.539*** (0.260)</td>
<td>2.863*** (0.338)</td>
<td>2.595*** (0.345)</td>
</tr>
<tr>
<td>Prevention Focus</td>
<td>0.077 (0.046)</td>
<td>0.098 (0.043)</td>
<td>0.245*** (0.061)</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>0.366*** (0.057)</td>
<td>0.194 (0.065)</td>
<td>0.098 (0.076)</td>
</tr>
<tr>
<td>Locomotion</td>
<td>0.295*** (0.071)</td>
<td></td>
<td>0.338** (0.097)</td>
</tr>
<tr>
<td>Assessment</td>
<td>-0.240*** (0.055)</td>
<td></td>
<td>-0.232** (0.075)</td>
</tr>
</tbody>
</table>

| $R^2$                 | .184      | .281      | .084     | .152     | .162      | .296      |
| Adjusted $R^2$        | .176      | .267      | .075     | .136     | .154      | .282      |

$\Delta F$  

$\Delta R^2$


| .184      | .097      | .084     | .069     | .162      | .134      |

**Note.**  

N = 206.

$^\dagger p < .10$.  

$^* p < .05$.  

$^{**} p < .01$.  

$^{***} p < .001$.  


Table 3

*Descriptive Statistics and Correlations Between Variables (Study 2)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Locomotion</td>
<td>4.40</td>
<td>0.72</td>
<td>(.87)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Assessment</td>
<td>3.92</td>
<td>0.76</td>
<td>.06</td>
<td>(.83)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Decisiveness</td>
<td>3.84</td>
<td>0.97</td>
<td>.35***</td>
<td>-.31***</td>
<td>(.84)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Need for Structure</td>
<td>4.09</td>
<td>0.68</td>
<td>.11**</td>
<td>.20***</td>
<td>-.06</td>
<td>(.90)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Self-Enhancement</td>
<td>4.25</td>
<td>0.70</td>
<td>.34***</td>
<td>-.37***</td>
<td>.59***</td>
<td>-.10**</td>
<td>(.76)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Impression Management</td>
<td>3.90</td>
<td>0.96</td>
<td>.19***</td>
<td>-.24***</td>
<td>.25***</td>
<td>.07†</td>
<td>.40***</td>
<td>(.85)</td>
<td></td>
</tr>
<tr>
<td>7. SDR</td>
<td>4.08</td>
<td>0.70</td>
<td>.30***</td>
<td>-.35***</td>
<td>.47***</td>
<td>.00</td>
<td>.78***</td>
<td>.89***</td>
<td>(.86)</td>
</tr>
</tbody>
</table>

*Note.*  
$N = 583$. Cronbach’s alpha appears in parentheses.  
†$p < .10$.  
*p < .05*.  
**$p < .01$.  
***$p < .001$.  

Table 4
Unstandardized Regression Results (Study 2)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Self-Enhancement</th>
<th>Impression Management</th>
<th>SDR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
</tr>
<tr>
<td>Constant</td>
<td>3.995*** (0.177)</td>
<td>3.983*** (0.326)</td>
<td>3.492*** (0.201)</td>
</tr>
<tr>
<td>Age</td>
<td>0.111*** (0.036)</td>
<td>-0.018 (0.033)</td>
<td>0.144*** (0.041)</td>
</tr>
<tr>
<td>Gender&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.230 (0.089)</td>
<td>-0.279*** (0.076)</td>
<td>0.224 (0.101)</td>
</tr>
<tr>
<td>Education</td>
<td>0.055 (0.034)</td>
<td>0.089*** (0.030)</td>
<td>0.070 (0.039)</td>
</tr>
<tr>
<td>Locomotion</td>
<td>0.553*** (0.052)</td>
<td></td>
<td>0.421*** (0.065)</td>
</tr>
<tr>
<td>Assessment</td>
<td>-0.568*** (0.051)</td>
<td></td>
<td>0.381*** (0.065)</td>
</tr>
</tbody>
</table>


R<sup>2</sup>: .032 .297 .038 .143 .021 .241

Adjusted R<sup>2</sup>: .027 .291 .034 .136 .016 .234

ΔF: 6.331*** 108.736*** 7.727*** 35.218*** 4.128*** 83.606***

ΔR<sup>2</sup>: .032 .265 .038 .105 .021 .220

Note.  N = 583.

<sup>a</sup>Females dummy coded as 1

†p < .10.  *p < .05.  **p < .01.  ***p < .001.
<table>
<thead>
<tr>
<th>Positive</th>
<th>Likability</th>
<th>Freq</th>
<th>Negative</th>
<th>Likability</th>
<th>Freq</th>
</tr>
</thead>
<tbody>
<tr>
<td>active</td>
<td>4.55</td>
<td>88</td>
<td>antisocial</td>
<td>1.44</td>
<td>2</td>
</tr>
<tr>
<td>adventurous</td>
<td>4.41</td>
<td>5</td>
<td>careless</td>
<td>1.4</td>
<td>8</td>
</tr>
<tr>
<td>amiable</td>
<td>4.46</td>
<td>2</td>
<td>childish</td>
<td>1.09</td>
<td>11</td>
</tr>
<tr>
<td>amusing</td>
<td>4.6</td>
<td>-</td>
<td>complaining</td>
<td>1.27</td>
<td>5</td>
</tr>
<tr>
<td>attentive</td>
<td>4.5</td>
<td>5</td>
<td>deceptive</td>
<td>1.17</td>
<td>4</td>
</tr>
<tr>
<td>capable</td>
<td>4.71</td>
<td>66</td>
<td>disagreeable</td>
<td>1.34</td>
<td>1</td>
</tr>
<tr>
<td>clean-cut</td>
<td>4.6</td>
<td>-</td>
<td>disobedient</td>
<td>1.28</td>
<td>2</td>
</tr>
<tr>
<td>competent</td>
<td>4.47</td>
<td>21</td>
<td>egotistical</td>
<td>1.16</td>
<td>-</td>
</tr>
<tr>
<td>composed</td>
<td>4.39</td>
<td>-</td>
<td>foolish</td>
<td>1.40</td>
<td>16</td>
</tr>
<tr>
<td>congenial</td>
<td>4.52</td>
<td>7</td>
<td>gloomy</td>
<td>1.36</td>
<td>3</td>
</tr>
<tr>
<td>conscientious</td>
<td>4.81</td>
<td>10</td>
<td>gossipy</td>
<td>1.19</td>
<td>27</td>
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<tr>
<td>constructive</td>
<td>4.68</td>
<td>15</td>
<td>grouchy</td>
<td>1.17</td>
<td>-</td>
</tr>
<tr>
<td>cordial</td>
<td>4.52</td>
<td>6</td>
<td>helpless</td>
<td>1.36</td>
<td>21</td>
</tr>
<tr>
<td>creative</td>
<td>4.62</td>
<td>49</td>
<td>immature</td>
<td>1.54</td>
<td>7</td>
</tr>
<tr>
<td>cultured</td>
<td>4.5</td>
<td>4</td>
<td>impolite</td>
<td>1.03</td>
<td>-</td>
</tr>
<tr>
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aBased on Anderson (1968). bBased on Kučera and Francis (1967).
### Table 6

**Lists of Selected Personality Adjectives (Study 3)**

#### Set A

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<th>Freq&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Negative</th>
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<th>Freq&lt;sup&gt;b&lt;/sup&gt;</th>
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| M           | 4.60                   | 24.56            | M            | 1.31                   | 5.90             |
| SD          | 0.16                   | 25.34            | SD           | 0.18                   | 4.58             |

#### Set B

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| M           | 4.59                   | 23.10            | M            | 1.24                   | 5.63             |
| SD          | 0.14                   | 29.60            | SD           | 0.19                   | 4.53             |

#### Set C

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| M           | 4.58                   | 24.10            | M            | 1.32                   | 8.13             |
| SD          | 0.13                   | 21.39            | SD           | 0.17                   | 8.10             |

<sup>a</sup>Based on Anderson (1968).

<sup>b</sup>Based on Kučera and Francis (1967).
Table 7

Descriptive Statistics and Correlations Between Variables (Study 3)

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Note. N = 97. Cronbach’s alpha appears in parentheses.

†p < .05. *p < .05. **p < .01. ***p < .001.
Table 8
Unstandardized Regression Results (Study 3)

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<th>Socially Desirable Responding</th>
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<td>$\Delta R^2$</td>
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Note.  $N = 97$.

† Female dummy coded as 1

*p < .10.  *p < .05.  **p < .01.  ***p < .001.
Table 9  
*Unstandardized Regression Results for Delayed Recognition Task (Study 3)*  

<table>
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<th>Negative Traits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
</tr>
<tr>
<td>Age</td>
<td>0.170(0.399)</td>
<td>0.313(0.396)</td>
<td>0.024(0.198)</td>
</tr>
<tr>
<td>Gender*a</td>
<td>1.162(1.299)</td>
<td>1.556(1.304)</td>
<td>0.325(0.615)</td>
</tr>
<tr>
<td>Response Format*b</td>
<td>-6.979****(1.176)</td>
<td>-7.327***(1.184)</td>
<td>-6.146****(0.583)</td>
</tr>
<tr>
<td>Word List*c</td>
<td>1.034(1.177)</td>
<td>1.011(1.169)</td>
<td>-0.183(0.584)</td>
</tr>
<tr>
<td>Locomotion</td>
<td>-1.075(1.125)</td>
<td>-1.075(1.125)</td>
<td>0.229(0.552)</td>
</tr>
<tr>
<td>Assessment</td>
<td>2.573*(1.157)</td>
<td>1.503*(0.567)</td>
<td>1.503*(0.567)</td>
</tr>
</tbody>
</table>

| F                      | 9.204***                      | 7.282***                 | 28.084***                           | 21.089*** | 1.238 | 1.717 |
| \(R^2\)               | .286                         | .327                     | .550                                | .584      | .051 | .103 |
| Adjusted \(R^2\)      | .255                         | .282                     | .530                                | .557      | .010 | .043 |
| \(\Delta F\)          | 9.204***                     | 2.740†                   | 28.084*                             | 3.747†    | 1.238† | 2.589† |
| \(\Delta R^2\)        | .286                         | .041                     | .550                                | .035      | .051 | .052 |

Note.  
\(N = 97\).  

*a* Females dummy coded as 1  
*b* Right handed response as “Describe me” coded as 1.  
*c* List A used as Block 1 coded as 1.  
†\(p < .10\).  
*\(p < .05\).  
**\(p < .01\).  
***\(p < .001\).
## Table 10

**Unstandardized Regression Results for Signal Detection (Study 3)**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>d’ (All Traits)</th>
<th></th>
<th>d’ (Positive Traits)</th>
<th></th>
<th>d’ (Negative Traits)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
<td>Model 5</td>
<td>Model 6</td>
</tr>
<tr>
<td>Constant</td>
<td>3.838*** (1.010)</td>
<td>3.141† (1.252)</td>
<td>3.762*** (1.032)</td>
<td>3.274† (1.303)</td>
<td>3.349*** (1.125)</td>
<td>2.985*** (1.429)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.067 (0.045)</td>
<td>-0.047 (0.044)</td>
<td>-0.069 (0.046)</td>
<td>-0.053 (0.045)</td>
<td>-0.043 (0.050)</td>
<td>-0.028 (0.050)</td>
</tr>
<tr>
<td>Gender</td>
<td>0.091 (0.146)</td>
<td>0.122 (0.144)</td>
<td>0.090 (0.149)</td>
<td>0.112 (0.150)</td>
<td>0.139 (0.162)</td>
<td>0.156 (0.164)</td>
</tr>
<tr>
<td>Response Format†</td>
<td>-1.279*** (0.132)</td>
<td>-1.347*** (0.131)</td>
<td>-1.909*** (0.135)</td>
<td>-1.965*** (0.136)</td>
<td>-0.225 (0.147)</td>
<td>-0.281 (0.149)</td>
</tr>
<tr>
<td>Word List‡</td>
<td>0.002 (0.132)</td>
<td>-0.018 (0.129)</td>
<td>-0.010 (0.135)</td>
<td>-0.028 (0.134)</td>
<td>-0.097 (0.147)</td>
<td>-0.117 (0.147)</td>
</tr>
<tr>
<td>Locomotion</td>
<td>-0.246 (0.124)</td>
<td></td>
<td>-0.205 (0.129)</td>
<td></td>
<td>-0.210 (0.142)</td>
<td></td>
</tr>
<tr>
<td>Assessment</td>
<td>0.307 (0.128)</td>
<td></td>
<td>0.239 (0.133)</td>
<td></td>
<td>0.219 (0.146)</td>
<td></td>
</tr>
</tbody>
</table>

**F**                  | 24.722***       | 19.178*** | 51.557*** | 36.453*** | 1.377       | 1.611       |

**R²**                 | .518            | .561       | .692       | .708       | .056        | .097        |

Adjusted **R²**        | .497            | .532       | .678       | .689       | .015        | .037        |

**ΔF**                 | 24.722***       | 4.416†     | 51.557***  | 2.618†     | 1.377       | 2.018       |

**ΔR²**                | .518            | .043       | .692       | .017       | .056        | .041        |

**Note.**  
N = 97.

a Females dummy coded as 1
b Right handed response as “Describe me” coded as 1.
c List A used as Block 1 coded as 1.
†p < .10  
*p < .05  
**p < .01  
***p < .001.
Table 11
Descriptive Statistics and Correlations Between Variables (Study 4)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Locomotion Condition</td>
<td>0.33</td>
<td>0.47</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Assessment Condition</td>
<td>0.33</td>
<td>0.47</td>
<td>-0.49</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Recall Fluency</td>
<td>3.22</td>
<td>1.52</td>
<td>-0.37</td>
<td>-0.17</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Decisiveness</td>
<td>3.71</td>
<td>0.98</td>
<td>0.15</td>
<td>-0.12</td>
<td>0.057</td>
<td>0.77</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>5. Need for Structure</td>
<td>4.59</td>
<td>0.51</td>
<td>0.00</td>
<td>0.02</td>
<td>0.24</td>
<td>0.80</td>
<td>0</td>
<td>0.02</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Impression Management</td>
<td>4.90</td>
<td>0.96</td>
<td>0.09</td>
<td>0.06</td>
<td>-0.08</td>
<td>0.52</td>
<td>0</td>
<td>0.29</td>
<td>0.32</td>
<td>0</td>
</tr>
<tr>
<td>7. Self-Enhancement</td>
<td>4.32</td>
<td>0.93</td>
<td>0.06</td>
<td>0.01</td>
<td>0.62</td>
<td>0.58</td>
<td>0.13</td>
<td>0.28</td>
<td>0.61</td>
<td>0</td>
</tr>
<tr>
<td>8. SDR</td>
<td>3.68</td>
<td>0.76</td>
<td>0.17</td>
<td>0.13</td>
<td>0.55</td>
<td>0.61</td>
<td>0.11</td>
<td>0.48</td>
<td>0.61</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. N = 85. Cronbach’s alpha appears in parentheses.

* Dummy variable, control condition as baseline.
† p < .05.  * p < .05.  ** p < .01.  *** p < .001.
### Table 12

**Unstandardized Regression Results for Survey Measures (Study 4)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Self-Enhancement (SE)</th>
<th>Impression Management (IM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Constant</td>
<td>4.727** (0.304)</td>
<td>4.564** (0.349)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.030 (0.054)</td>
<td>-0.027 (0.056)</td>
</tr>
<tr>
<td>Gendera</td>
<td>-0.528** (0.196)</td>
<td>-0.541** (0.201)</td>
</tr>
<tr>
<td>Locomotionb</td>
<td>0.251 (0.285)</td>
<td>0.450 (0.294)</td>
</tr>
<tr>
<td>Assessmentb</td>
<td>0.226 (0.269)</td>
<td>0.001 (0.270)</td>
</tr>
<tr>
<td>Recall Fluency</td>
<td>0.104 (0.102)</td>
<td>-0.116 (0.181)</td>
</tr>
<tr>
<td>Locomotion</td>
<td></td>
<td>0.880** (0.296)</td>
</tr>
<tr>
<td>Recall Fluency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recall Fluency</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| F               | 3.656*            | 1.649  | 2.847*            | 1.346  | 1.078  | 1.056  |
| R²              | 0.082             | 0.095  | 0.206             | 0.032  | 0.064  | 0.088  |
| Adjusted R²     | 0.059             | 0.037  | 0.133             | 0.008  | 0.005  | 0.005  |
| ΔF              | 3.656*            | 0.368  | 5.383**           | 1.346  | 0.903  | 1.003  |
| ΔR²             | 0.082             | 0.013  | 0.111             | 0.032  | 0.032  | 0.024  |

<table>
<thead>
<tr>
<th>Variables</th>
<th>SDR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 7</td>
</tr>
<tr>
<td>Constant</td>
<td>3.570** (0.257)</td>
</tr>
<tr>
<td>Age</td>
<td>0.033 (0.046)</td>
</tr>
<tr>
<td>Gendera</td>
<td>-0.102 (0.166)</td>
</tr>
<tr>
<td>Locomotionb</td>
<td>0.720** (0.225)</td>
</tr>
<tr>
<td>Assessmentb</td>
<td>0.663** (0.213)</td>
</tr>
<tr>
<td>Recall Fluency</td>
<td>0.205* (0.095)</td>
</tr>
<tr>
<td>Locomotion X</td>
<td></td>
</tr>
<tr>
<td>Recall Fluency</td>
<td></td>
</tr>
<tr>
<td>Recall Fluency</td>
<td></td>
</tr>
</tbody>
</table>

| F               | 0.498  | 2.745* | 3.697** |
| R²              | 0.012  | 0.148  | 0.234   |
| Adjusted R²     | -0.112 | 0.94   | 0.165   |
| ΔF              | 0.498  | 4.204** | 4.340* |
| ΔR²             | 0.012  | 0.136  | 0.086   |

**Note.** N = 85.

Females dummy coded as 1
Control as baseline condition
†p < .10. *p < .05. **p < .01. ***p < .001.
Table 13  
*Conditional Indirect Effects of Locomotion on SDR Variables Through Proposed Mediators with Controls (Study 4)*

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Fluency</th>
<th>Bootstrap Effect</th>
<th>Normal Effect</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bias –corrected and accelerated CIs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1 SD</td>
<td>0.235</td>
<td>-0.150</td>
<td>-0.651</td>
<td>0.265</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>0</td>
<td>0.173</td>
<td>0.337</td>
<td>0.057</td>
<td>0.736</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>+1 SD</td>
<td>0.337</td>
<td>0.824</td>
<td>0.349</td>
<td>1.664</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>-1 SD</td>
<td>0.071</td>
<td>-0.031</td>
<td>-0.192</td>
<td>0.107</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>0</td>
<td>0.060</td>
<td>-0.012</td>
<td>-0.123</td>
<td>0.130</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>+1 SD</td>
<td>0.112</td>
<td>0.006</td>
<td>-0.165</td>
<td>0.289</td>
</tr>
</tbody>
</table>

Conditional Indirect Effect of Locomotion on Self Deception Enhancement at Different Values of Fluency

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Fluency</th>
<th>Bootstrap Effect</th>
<th>Normal Effect</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-1 SD</td>
<td>0.119</td>
<td>-0.069</td>
<td>-0.328</td>
<td>0.163</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>0</td>
<td>0.112</td>
<td>0.156</td>
<td>0.003</td>
<td>0.431</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>+1 SD</td>
<td>0.219</td>
<td>0.381</td>
<td>0.047</td>
<td>0.917</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>-1 SD</td>
<td>0.104</td>
<td>-0.052</td>
<td>-0.266</td>
<td>0.165</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>0</td>
<td>0.093</td>
<td>-0.021</td>
<td>-0.189</td>
<td>0.191</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>+1 SD</td>
<td>0.169</td>
<td>0.010</td>
<td>-0.276</td>
<td>0.420</td>
</tr>
</tbody>
</table>

Conditional Indirect Effect of Locomotion on Impression Management at Different Values of Fluency

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Fluency</th>
<th>Bootstrap Effect</th>
<th>Normal Effect</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-1 SD</td>
<td>0.190</td>
<td>-0.124</td>
<td>-0.507</td>
<td>0.247</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>0</td>
<td>0.153</td>
<td>0.279</td>
<td>0.039</td>
<td>0.645</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>+1 SD</td>
<td>0.277</td>
<td>0.681</td>
<td>0.295</td>
<td>1.381</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>-1 SD</td>
<td>0.035</td>
<td>0.007</td>
<td>-0.049</td>
<td>0.099</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>0</td>
<td>0.027</td>
<td>0.003</td>
<td>-0.031</td>
<td>0.073</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>+1 SD</td>
<td>0.046</td>
<td>-0.001</td>
<td>-0.094</td>
<td>0.103</td>
</tr>
</tbody>
</table>

Conditional Indirect Effect of Locomotion on Social Desirability at Different Values of Fluency

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Fluency</th>
<th>Bootstrap Effect</th>
<th>Normal Effect</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-1 SD</td>
<td>0.190</td>
<td>-0.124</td>
<td>-0.507</td>
<td>0.247</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>0</td>
<td>0.153</td>
<td>0.279</td>
<td>0.039</td>
<td>0.645</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>+1 SD</td>
<td>0.277</td>
<td>0.681</td>
<td>0.295</td>
<td>1.381</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>-1 SD</td>
<td>0.035</td>
<td>0.007</td>
<td>-0.049</td>
<td>0.099</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>0</td>
<td>0.027</td>
<td>0.003</td>
<td>-0.031</td>
<td>0.073</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>+1 SD</td>
<td>0.046</td>
<td>-0.001</td>
<td>-0.094</td>
<td>0.103</td>
</tr>
</tbody>
</table>

Note.  
*N* = 85.

*Controls include age, gender, assessment condition and alternate socially desirable responding component.

*Controls include age, gender, and assessment condition.
Table 14
Descriptive Statistics and Correlations Between Higher Order Variables (Study 5)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Locomotion</td>
<td>4.51</td>
<td>.75</td>
<td>.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Assessment</td>
<td>3.83</td>
<td>.84</td>
<td>.08</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Self-Enhancement</td>
<td>4.76</td>
<td>1.19</td>
<td>.41</td>
<td>.32</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Impression Management</td>
<td>4.60</td>
<td>1.23</td>
<td>.29</td>
<td>.22</td>
<td>.45</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Affiliative CB&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.70</td>
<td>0.93</td>
<td>.62</td>
<td>.00</td>
<td>.29</td>
<td>.37</td>
<td>.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Challenging CB&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3.69</td>
<td>0.76</td>
<td>.47</td>
<td>.14</td>
<td>.30</td>
<td>.14</td>
<td>.52</td>
<td>.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Gender&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.52</td>
<td>0.50</td>
<td>.10</td>
<td>-.01</td>
<td>-.01</td>
<td>.15</td>
<td>.10</td>
<td>-.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Total Work Experience</td>
<td>13.05</td>
<td>8.90</td>
<td>.07</td>
<td>-.16</td>
<td>.10</td>
<td>.15</td>
<td>.13</td>
<td>-.07</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note.  
N = 463. Cronbach’s alpha appears in parentheses.
<sup>a</sup>CB represents citizenship behaviors.
<sup>b</sup>Females dummy coded as 1.
†p < .10.  *p < .05.  **p < .01.  ***p < .001.
### Table 15

**Unstandardized Regression Results on Citizenship Behavior Variables (Study 5)**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Challenging CB</th>
<th></th>
<th>Affiliative CB</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
</tr>
<tr>
<td>Constant</td>
<td>3.633*** (0.138)</td>
<td>0.717 (0.292)</td>
<td>5.157*** (0.166)</td>
<td>1.567*** (0.313)</td>
</tr>
<tr>
<td>Gender&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.011(0.048)</td>
<td>0.011(0.042)</td>
<td>0.140(0.058)</td>
<td>0.094*(0.046)</td>
</tr>
<tr>
<td>Total Work Experience</td>
<td>0.007(0.005)</td>
<td>0.004(0.005)</td>
<td>0.003(0.007)</td>
<td>0.000(0.005)</td>
</tr>
<tr>
<td>Self-Enhancement</td>
<td>0.134*** (0.032)</td>
<td>0.017(0.046)</td>
<td>0.155*** (0.030)</td>
<td>0.150*** (0.030)</td>
</tr>
<tr>
<td>Impression Management</td>
<td>-0.017(0.028)</td>
<td>0.375*** (0.046)</td>
<td>0.700*** (0.050)</td>
<td>0.700*** (0.050)</td>
</tr>
<tr>
<td>Locomotion</td>
<td>0.007(0.005)</td>
<td>0.004(0.005)</td>
<td>0.003(0.007)</td>
<td>0.000(0.005)</td>
</tr>
<tr>
<td>Assessment</td>
<td>0.163*** (0.041)</td>
<td>0.155*** (0.030)</td>
<td>0.155*** (0.030)</td>
<td>0.155*** (0.030)</td>
</tr>
</tbody>
</table>

\[
F = 1.266, \quad 27.112***, \quad 7.044**, \quad 58.114***
\]

\[
R^2 = .005, \quad .263, \quad .030, \quad .433
\]

\[
\text{Adjusted } R^2 = .001, \quad .253, \quad .025, \quad .426
\]

\[
\Delta F = 1.266, \quad 39.821***, \quad 7.044**, \quad 81.193***
\]

\[
\Delta R^2 = .005, \quad .257, \quad .030, \quad .404
\]

**Note.** \(N = 463\). CB represents citizenship behaviors.

<sup>a</sup>Females dummy coded as 1.

<sup>†</sup>\(p < .10\).  \(\ast p < .05\).  **\(p < .01\).  ***\(p < .001\).
Table 16

Summary of Findings

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
<th>Study 4</th>
<th>Study 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a: L → SE</td>
<td>+***</td>
<td>+***</td>
<td>+</td>
<td>+***</td>
<td></td>
</tr>
<tr>
<td>H1b: L → IM</td>
<td>+**</td>
<td>+***</td>
<td>+</td>
<td></td>
<td>+***</td>
</tr>
<tr>
<td>H1a: L → (Pos-Neg) Describe</td>
<td>+**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1a: L → (Pos-Neg) Accurate</td>
<td></td>
<td>ns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1a: LxRecall Fluency → SE</td>
<td></td>
<td></td>
<td>**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1b: LxRecall Fluency → IM</td>
<td></td>
<td></td>
<td></td>
<td>ns</td>
<td></td>
</tr>
<tr>
<td>H2: A → SV (Recognition)</td>
<td></td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3a: L → Decide → SE</td>
<td>+**</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3b: L → Decide → IM</td>
<td>+**</td>
<td></td>
<td>ns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3a: LxRecall Fluency → Decide → SE</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3b: LxRecall Fluency → Decide → IM</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H4: A → Structure → SV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ns</td>
</tr>
</tbody>
</table>

Citizenship Behaviors as Outcome Variable

| H5a: L → Challenging | +*** |
| H5b: L → Affiliative | +*** |
| H6: A → Challenging | +*** |
| H7a: L → SE → Challenging | + |
| H7b: L → IM → Affiliative | + |

Note. A represents assessment, L represent locomotion, SE represent self-verification, IM represents impression management, d’ represent trait recognition accuracy, + indicates positive relationship for main effect or positive indirect effect, - indicates negative relationship for main effect or negative indirect effect, ns represent non-significance. †p < .10. *p < .05. **p < .01. ***p < .001.
Figure 1. Coefficients representing the indirect effects of NFCC on locomotion and SDR (Study 2). \( N = 583. \) \( ^\dagger p < .10. \) \( ^\ast p < .05. \) \( ^{**} p < .01. \) \( ^{***} p < .001. \)
Figure 2. Coefficients representing the indirect effects of regulatory mode on decisiveness and SDR (Study 2). \( N = 583. \quad { }^\dagger p < .10. \quad ^* p < .05. \quad ^{*}\!^* p < .01. \quad ^{*}\!^*\!^* p < .001. \)
Panel A: Hypothesized Model

Decisiveness

Locomotion

Assessment

Need for Structure

Self-Enhancement

Impression Management

Fit: $\chi^2$ (239) = 1077.310, RMSEA = .077 (90% CI: .073, .082), SRMR = .082, CFI = .94, NNFI = .93, AIC = 1199.310, EVCI = 2.050

Panel B: Competing Model

Locomotion

Self-Enhancement

Impression Management

Decisiveness

Need for Structure

Assessment

Fit: $\chi^2$ (239) = 1114.937, RMSEA = .079 (90% CI: .075, .084), SRMR = .087, CFI = .94, NNFI = .93, AIC = 1236.937, EVCI = 2.114

Figure 3. Current versus alternative hypothesis structural model. † $p < .10$.  * $p < .05$.  ** $p < .01$.  *** $p < .001$. 

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Figure 4. Coefficients representing the indirect effects of NFCC on regulatory modes on and SDR (Study 3). $N = 97$. †$p < .10$. ‡$p < .05$. ‡‡$p < .01$. ‡‡‡$p < .001$. 

Panel A
Controlled for age, gender, and assessment

\[
F(6, 90) = 13.659, p < .001, R^2 = .477, \text{Adj. } R^2 = .442
\]

\[
\begin{align*}
\text{Locomotion} & \rightarrow 0.540^{**}(0.200) \rightarrow \text{Decisiveness} \\
& \rightarrow 0.467^{***}(0.071) \rightarrow \text{Self-Enhancement} \\
& \rightarrow -0.160(0.180) \rightarrow \text{Intolerance with Ambiguity} \\
& \rightarrow -0.143^{†}(0.080) \\
\end{align*}
\]

CI: 0.079, 0.453
CI: -0.029, 0.126

Panel B
Controlled for age, gender, and assessment

\[
F(6, 90) = 2.978, p = .011, R^2 = .166, \text{Adj. } R^2 = .110
\]

\[
\begin{align*}
\text{Locomotion} & \rightarrow 0.540^{**}(0.200) \rightarrow \text{Decisiveness} \\
& \rightarrow 0.111(0.094) \rightarrow \text{Impression Management} \\
& \rightarrow -0.160(0.180) \rightarrow \text{Intolerance with Ambiguity} \\
& \rightarrow -0.054(0.104) \\
\end{align*}
\]

CI: -0.029, 0.231
CI: -0.028, 0.111

Panel C
Controlled for age, gender, and assessment

\[
F(6, 90) = 10.433, p < .001, R^2 = .410, \text{Adj. } R^2 = .371
\]

\[
\begin{align*}
\text{Locomotion} & \rightarrow 0.540^{**}(0.200) \rightarrow \text{Decisiveness} \\
& \rightarrow 0.289^{***}(0.061) \rightarrow \text{SDR} \\
& \rightarrow -0.160(0.180) \rightarrow \text{Intolerance with Ambiguity} \\
& \rightarrow -0.098(0.067) \\
\end{align*}
\]

CI: 0.051, 0.319
CI: -0.018, 0.096
Figure 5. Traits selection across regulatory modes (Study 3).
Figure 6. Interaction of regulatory modes and trait valence on traits selection across frames (Study 3).
Figure 7. Interaction between regulatory modes and recall fluency on socially desirable response (Study 4). $N = 85$.

$\hat{p} < .10$. $^* p < .05$. $^{**} p < .01$. $^{***} p < .001$. 
**Figure 8.** Coefficients representing conditional indirect effects of NFCC on locomotion and SDR (Study 4). \( N = 85 \).

*\( p < .10 \).  *\( p < .05 \).  **\( p < .01 \).  ***\( p < .001 \).
Panel A  
Controlled for gender, total work experience, and assessment

\[ F(6,456) = 28.228, \ p < .001, \ R^2 = .271, \text{ Adj. } R^2 = .261 \]

**Figure 9.** Indirect effects of SDR on regulatory modes and citizenship behaviors with controls* (Study 5). \( N = 463 \).

*CB represents citizenship behaviors.

†\( p < .10 \). *\( p < .05 \). **\( p < .01 \). ***\( p < .001 \).
Figure 10. Results of structural model (Study 5). N = 463.

a CB represents citizenship behaviors.
b Females dummy coded as 1.
† p < .10. * p < .05. ** p < .01. *** p < .001.
Panel A
Controlled for gender, total work experience, and impression management
\[
F(6, 456) = 28.228, p < .001, R^2 = .271, \text{ Adj. } R^2 = .261
\]
CI: 0.055, 0.124

[Diagram]

Panel B
Controlled for gender, total work experience, and self-enhancement
\[
F(6, 456) = 28.228, p < .001, R^2 = .271, \text{ Adj. } R^2 = .261
\]
CI: 0.004, 0.055

[Diagram]

Panel C
Controlled for gender, total work experience, and impression management
\[
F(6, 456) = 56.920, p < .001, R^2 = .428, \text{ Adj. } R^2 = .421
\]
CI: 0.109, 0.209

[Diagram]

Panel D
Controlled for gender, total work experience, and self-enhancement
\[
F(6, 456) = 56.920, p < .001, R^2 = .428, \text{ Adj. } R^2 = .421
\]
CI: 0.007, 0.101

[Diagram]

Figure 11. Indirect effects of regulatory modes on SDR and citizenship behaviors with controls\(^a\) (Study 5). \(N = 463.\)
\(\text{\textsuperscript{a}}\)CB represents citizenship behaviors.
\(\text{\textsuperscript{\dagger}}p < .10. \text{ \textsuperscript{*}}p < .05. \text{ \textsuperscript{**}}p < .01. \text{ \textsuperscript{***}}p < .001.\)
REFERENCES


Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-00PI-R) and NEO Five Factor Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.


