Decomposing Trait and State Aspects of Regulatory Focus in Daily Life

by

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

Regulatory focus theory describes two independent motivational systems, promotion and prevention focus, that regulate behavioural strategies toward desired goals (Higgins, 1997). Promotion focus prioritizes nurturance needs and achieving goals related to one’s hopes, dreams, and aspirations. Promotion focus also sensitizes a person to the presence and absence of rewards where success and failure are experienced as happiness and sadness, respectively. This is contrasted with prevention focus, which prioritizes safety needs and fulfilling one’s duties, responsibilities, and obligations. Prevention focus sensitizes a person to the presence and absence of losses where success and failure are experienced as calm and anxiety, respectively. The present study assessed emotion in daily life related to trait regulatory focus and success and their daily fluctuations in an experience sampling experiment. Participants completed a daily experiences survey every day for a month that measured their emotions and regulatory focus and success. The Big Five Personality dimensions were also measured to examine associations with individual differences in emotion. Regulatory focus predictions were only partially supported. In fact, regulatory focus was a consistently stronger predictor of daily emotion than success.
Importantly, promotion focus was consistently related to more positive emotions and less negative emotions. In contrast, prevention focus was consistently related to more negative emotions and less positive emotions. Promotion focus also buffered against the negative emotions associated with goal failure as well as boosted the positive emotions associated with success. Conversely, prevention focus exacerbated the negative emotions of goal failure and attenuated the positive emotions associated with success. Personality also moderated different aspects of regulatory variables to predict different emotions. Decomposing regulatory focus and success into traits and daily fluctuations from trait levels predicted different emotions. Thus, to fully understand how regulatory focus influences emotion, success and focus must be differentiated at both the trait and day level.
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Chapter 1
General Introduction

1 Motivation

Motivated behaviour can be most simply understood under the framework of the hedonic principle where people pursue pleasure and avoid pain (Gray, 1982; Higgins, 1997). Indeed, all biological life forms can be shown to involve basic forms of motivational patterns that comprise these approach and avoidance behaviours (Bradley & Lang, 2000). The hedonic principle is elegant because it describes agentic behaviour that can be adaptive by simply pursuing reward and avoiding threat or pain. However, it is limited when trying to understand how different instances of negative emotion (i.e., anger and disgust) can be fully understood by indexing avoidance tendencies for aversive stimuli. Most importantly, the hedonic principle fails to explain how people adopt different strategies to pursue goals in their environment. People can pursue goals by selectively focusing on specific aspects of their environment that denote goal progress (Higgins, 1997). This feedback information is important, as it allows for adaptive motivated behavior in a complex and changing environment. There are many ways one can pursue a goal by selectively focusing on specific information during goal pursuit and by framing the goal in a particular way. Moreover, goal focus and pursuit involve aspects of emotional experience that help to titrate motivation to ensure goal success (Higgins, 1997; Brockner & Higgins, 2001). The ways that people regulate these aspects of goal pursuit and representation is detailed in the regulatory focus theory of motivation (Higgins, 1997).

1.1 Regulatory Focus Theory

Regulatory focus theory states that the hedonic principle is applied along two dimensions to regulate pleasure and pain. Specifically, people can pursue goals by adopting promotion- or prevention-focused strategies (Higgins, 1997). Promotion-focused strategies concern goal pursuits based on approaching rewards and opportunities and avoiding situations where rewards and opportunities are absent. Promotion goals are represented as
hopes, dreams, and aspirations. These are goals that represent someone’s ideal self-guide, and involve goals that people want to reach (Higgins, 1997). Discrepancies from one’s actual-self and ideal-self generate emotional experience that allows for motivation to be sustained or altered according to environmental feedback (Higgins, 1997; Brockner & Higgins, 2000). People who adopt a promotion-focused strategy are concerned with matches to desired end-states and are more concerned with advancement and the presence or absence of positive incentives. Conversely, prevention-focused strategies concern the avoidance of risks and potential loss as well as the approach of situations without risk and potential loss. Prevention goals are represented as duties, responsibilities, and obligations. These are goals that represent an ought self-guide and are construed as goals someone must reach. The adoption of a prevention-focused strategy involves focusing on mismatches to desired end-states and is more concerned with the presence or absence of negative outcomes, thus behaviour is oriented toward being vigilantly tuned to potential loss, and risks and engenders seeking safety and security (Crowe and Higgins, 1997).

It is important to note that at the representational level, promotion and prevention focus involve approaching a match to desired end-states and avoiding mismatches to undesired end-states respectively. However, at the tactical level, someone could employ either an approach or avoidance strategy under either focus (Higgins, 1997). In other words, someone in a prevention focus can engage in approach or avoidance behavior to achieve an end goal. For example, to avoid doing poorly in a job interview a prevention focused person can avoid going to bed too late and can chose to read about the company they have applied to work for so as to avoid being uninformed during the interview. Here the reference state is the avoidance of doing poorly in the job interview and the behaviours are oriented around that negative reference state, whereas for someone in a promotion-focused state the reference state would be a positively-laden one involving acing the job interview. The attendant behaviours toward these goals may be similar but the framework that shapes the behaviours is difference in valence. Thus, at the representational level, a prevention focus involves avoiding loss and achieving that goal can tactically involve both approach and avoidance behaviours.
Regulatory focus describes strategies for minimizing discrepancies between actual states and desired end-states, whereas promotion focus involves approaching matches to desired end-states and prevention focus involves avoiding mismatches to desired end-states. So, although approach and avoidance can be implemented in either a promotion or prevention focus, there are predilections where promotion most often involves approach and prevention most often involves avoidance preferences and behavior (Higgins, Roney, Crowe, & Hymes, 1994; Higgins, 1997; Crowe & Higgins, 1997; Shah, Higgins, & Friedman, 1998; Freitas, Liberman, & Higgins, 2002). Although there is flexibility within each framework, there is specificity regarding different tendencies and proclivities for both promotion and prevention focus. Both are adaptive motivational strategies that can be employed in ways that are best in service to task demands. Promotion and prevention focus represent two independent ways in which motivation can be oriented during goal pursuit.

Although regulatory focus can be momentarily induced (Roney, Higgins, and Shah, 1995), regulatory focus predilections are often operationalized as chronic motivational tendencies (Higgins, 1997). These motivational predilections can also be transiently invoked by having task performance consequences couched in either promotion or prevention terms as well as feedback that is either more promotion focused (e.g., “Right, you got that one”) or more prevention focused (e.g., “No, you missed that one”) (Roney, Higgins, and Shah, 1995). These kinds of regulatory focus manipulations resulted in differences in subsequent task persistence and performance as well as different emotional experiences, where failure during promotion manipulations elicited more dejection emotions (i.e., sadness) and instances of failure during prevention manipulations resulted in more agitated emotions (i.e., anxiety) (Roney, Higgins, and Shah, 1995). Moreover, success in a promotion state resulted in feelings of happiness and satisfaction, and success in a prevention state resulted in feelings of relief and calm. (Shah & Higgins, 2001).

Even though promotion and prevention focus represent two different motivation strategies, evidence suggests that they lie within an overarching motivational system where positive and negative stimuli are preferentially processed according to the strategy adopted. For example, promotion focus results in a sensitivity and bias toward positive stimuli and
evaluation, whereas prevention focus relates to a sensitivity to negative stimuli and evaluations (Cunningham, Raye, & Johnson, 2005). Moreover, these differences are associated with differential activation in brain areas subserving attentional processes and evaluation. People high in promotion focus showed increased activation in the amygdala, anterior cingulate cortex (ACC), as well as selective attention areas in extrastriate cortex when rating the valence of concept words that were more positive versus negative. These same neural areas increased in activation for people high in prevention focus while rating negative concept words, suggesting that similar areas that subserve vigilance and attentional sensitivity are preferentially activated for valenced concepts as a function of regulatory fit (Cunningham, Raye, & Johnson, 2005). Thus, regulatory focus involves early perceptual processes that aid in selecting relevant information under the different regulatory foci. Moreover, these differences show how bottom up processing differences may allow for differences in affective experience by preferentially extracting different valenced information during goal pursuit. Thus, promotion and prevention may reflect the same underlying motivation system. In sum, both of these motivational tendencies provide us with adaptive strategies to explore an uncertain and ever-changing environment that best align with our goals and dispositions.

1.1.1 Regulatory Focus, Success, and Emotion

Humans, like most animals, are exploratory creatures and evolution has equipped us with a brain and a body well suited for environmental diversity and uncertainty. In numerous ways, all of our emotions can be seen as motivating us to flexibly move within our environments to arrive at different desired end-states. The word “emotion” is derived from the Latin word *moevere*, which means to move. Approach and avoidance behaviour is an organizing principle for all motivated action in biological agents and can be seen in the simplest organisms where approach is adopted for procuring food and avoidance is adopted for escaping threat (Schneirla, 1959). Motivation in animals has been traditionally reduced to a focus on intensity and valence as basic parameters that shape behaviour (Hebb, 1949). Regulatory focus is a framework within which valence is inherent in the motivational profiles of promotion and prevention focus. These two foci are orthogonal dimensions where one can be high in both allowing for behavioural flexibility. This
flexibility is crucial to successful goal pursuance and sustained motivation. Thus, motivation reflects an adaptively flexible organizing force that impels us to explore and react to our environment in ways that best allow us to make progress to achieve our goals. How we react to an ever-changing and unpredictable environment relates not only to which motivational strategy we will adopt but also relates to what affective landscape we will inhabit (Bradley & Lang, 2000). Regulatory focus theory is useful in showing how different emotions arise and influence motivation.

One way that regulatory focus influences motivation is via its relationship with developmental needs. Promotion focus refers to the need for nurturance and prevention focus refers to the need for security and safety. This relationship is best illustrated when considering that promotion focus is most concerned with potential environmental rewards and prevention focus is most concerned with potential environmental punishments. Moreover, promotion focus is sensitive to the presence and absence of positive outcomes, whereas prevention focus is sensitive to the presence and absence of loss. Goal success and failure are also experienced differently where different emotions are experienced depending on the regulatory focus that is adopted (Roney, Higgins, and Shah, 1995). Specifically, under a promotion focus, success is experienced as satisfied, cheerful emotions and failure is associated with dejected emotions. Conversely, prevention success is experienced as feelings of relief and failure is experienced as agitation-related emotions (Higgins, Shah & Friedman, 1997).

Interestingly, these emotions have been shown to preferentially influence goal pursuit evaluation, such that anticipated sadness under promotion focus and anticipated agitation under prevention focus led to more favorable evaluations of action during goal pursuit (Higgins, 1997; Higgins, 1996). In other words, differential emotional experiences of regulatory success and failure help to sustain motivation. Moreover, promotion success (i.e., resulting in happiness) is experienced as more intense than promotion failure (i.e., resulting in sadness), and prevention failure (i.e., resulting in anxiety) is experienced as more intense than prevention success (i.e., resulting in calm) (Idson, Lieberman, & Higgins, 2000). Under promotion focus, sadness serves to replace a missed reward and activates a goal of replacing the missed positive outcome, whereas under a prevention
focus anxiety results from the belief of pending negative outcomes and prioritizes the goal of uncertainty reduction. People also report greater motivation, enjoyment of goal pursuit and showed better performance when they experience a match between their regulatory focus and the means used to pursue their goals (Higgins, 2000). This match is called regulatory fit and can be seen when a promotion focused-person adopts eager approach means (e.g., solving anagrams) and when a prevention-focused person adopts vigilant avoidance means (e.g., proofreading) to goal pursuit (Higgins, 2000).

Thus, regulatory fit is a way to increase alertness, the value of goals, and the enjoyment of goal pursuit by highlighting the emotions that are most intensely experienced and anticipating those emotions, which, in turn, serve to sustain motivation during goal pursuit (Higgins, 2000; Leone, Perugini, & Bagozzi, 2005). Emotions can be seen as fuel and reparations to the needs that regulatory focus purports to address. Promotion focus concerns reducing sadness to restore rewarding nurturance needs and prevention focus concerns reducing anxiety to restore safety and security needs (Leone, Perugini, & Bagozzi, 2005). Therefore, it is no surprise that these differences in emotional experience of regulatory focus also relate to personality differences.

1.1.2 Regulatory Focus, Success, and Personality

Self-regulation results in positive affect when goal progress meets or exceeds one’s expectations, whereas negative affect arises when one does not achieve their goal progress expectations or experiences impediments to achievement (Higgins, 1997). Recall that promotion focus involves a sensitivity to rewards and positive emotion and prevention focus relates to a sensitivity to punishment and negative affect (Gorman et al, 2012), it makes sense that there would be individual differences in trait affect along these regulatory focus dimensions. Research supports this notion and has shown that promotion and prevention focus also relate to the Big Five personality characteristics (Gorman et al., 2012). Namely, promotion focus has been shown to be related extraversion and conscientiousness (Gorman et al., 2012). Prevention focus is also related to conscientiousness and neuroticism (Gorman et al., 2012; Vianen et al., 2012). Most of the theoretical literature connects regulatory focus and personality in terms of approach versus
avoidance tendencies (Higgins, 1998; Clark & Watson, 1999), where extraversion, and conscientiousness are seen as approach-related traits and neuroticism is related to avoidance related traits (Higgins, 1989; Higgins et al, 2001). Thus, in the present analyses only conscientiousness, extraversion and neuroticism will be explored in relation to emotion and regulatory variables.

The Big Five capture enduring personality dimensions that reflect independent facets of human behaviour and individual differences (McCrae & Costa, 1987). Extraversion is a personality trait that relates to high sociability, eagerness and enthusiasm. Extraversion can be easily seen to relate to the eager approach style that captures promotion focus. Although prevention focus is related to neuroticism, which involves a tendency to worry, emotional instability and general negative affect, it is also related to a more positively associated trait: conscientiousness (McCrae & Costa, 1987).

Conscientiousness is being organized, dependable, driven to succeed, careful and diligent in one’s work (Costa & McCrae, 1997). Moreover, conscientiousness has shown to predict safety behaviours (Arthur & Doverspike, 2001; Wallace & Chen, 2006), suggesting that it would be more related to prevention focus than promotion focus. However, it has been suggested that both foci are associated with conscientiousness through different facets, namely that promotion focus captures the desire for achievement and prevention focus captures the dependability in conscientiousness respectively (Wallace and Chen, 2006). Highly prevention-focused people would also be high in conscientiousness due to needs for safety, control, and risk avoidance. Overall, both foci seem to map onto different personality traits and highlight different aspects of motivated strategies. One question that can be is asked is how these differences in emotion and personality relate to regulatory focus to influence motivation and goal success over time.

1.1.3 Regulatory Focus and Success Over Time

Regulatory focus predilections are stable traits, but they can also be momentarily induced in laboratory setting (Higgins, 1997). The influence of regulatory focus on performance and behavior has been investigated and shown to predict different outcomes. Promotion focused people showed decreases in task performance when more distractors are present,
whereas prevention focused people showed increased performance (Freitas, Liberman, & Higgins, 2002). Promotion focused people also seem to be more easily distracted and are more likely to switch tasks when interrupted on a current task, whereas prevention focused people are more likely to resume an interrupted task and less likely to start a new task (Liberman, et al., 1999). Both foci show performance tradeoffs; promotion-focused people are quicker to complete tasks, but at the cost of increased errors, whereas prevention focus allows for the commission of fewer errors, but at the cost of speed (Forster et al., 2003; Wallace and Chen, 2006). Therefore, adopting a promotion or prevention focus can be adaptive depending on the task at hand. For example, an air traffic controller would most likely benefit from being in a prevention-focused state, whereas a screenwriter in a brainstorming meeting would best be served by adopting a promotion-focused mindset.

Although research has shown that whether people adopt a promotion or prevention focus is a mix of contextual and dispositional influences, it is unclear how regulatory focus is influenced by goal success and personality to predict emotion over time. It could be that promotion-focused people only experience happy and sad emotions when they are highly promotion focused and experience high or low goal success. Likewise, for prevention-focused people, calm and anxiety may only arise on days when prevention focus is high and goal success is high or low, respectively. Moreover, the personality traits associated with regulatory focus could operate as moderators of emotional experience where extra could attenuate negative emotional experience in light of low goal success and boost positive emotional experience during high goal success. Additionally, neuroticism may attenuate any positive emotional experiences in the face of high goal success and exacerbate negative experiences during low goal success. Lastly, it is unclear how focus changes over time. It could be that people who have more trait promotion focus tend to switch to prevention focus more if they experienced less promotion success the day before. Conversely, it could be that prevention focused people would be less likely to switch foci if unsuccessful under prevention focus given a general reluctance to switch (Liberman et al., 1999). In sum, research has shown that regulatory focus at the state and trait level matter in goal pursuit and outcome. It is well known how lab manipulations influence motivation, but it is unclear if experimental manipulations of state regulatory
focus are influencing the same construct as trait regulatory focus. Therefore, examining regulatory focus over time using an experience sampling method at the day and trait level allows for a direct comparison of the contribution of regulatory focus and success in predicting daily emotion.

1.2 Overview of Present Experiment

Regulatory focus theory stipulates differences in emotional experience based on success and failure. Specifically, promotion success and failure result in happiness and sadness respectively, whereas prevention success and failure result in calm and anxiety respectively. Thus, the association of regulatory success with emotional experience conflates regulatory focus with success. By definition, promotion success or failure is a goal outcome under a promotion focus where goals are represented as hopes, dreams, and aspirations and approaching rewards is prioritized. Conversely, prevention success or failure are goal outcomes under a prevention focus where goals are represented as duties, obligations, and responsibilities and avoiding losses is prioritized. As such, the relationship between emotion and regulatory success always involves the corresponding influence of regulatory focus. Therefore, it is impossible to assess the independent contributions of regulatory focus or success on emotional experience. Moreover, it is explicitly presumed that promotion and prevention focus are “nonemotional motivational states” (Higgins, 2001, pg. 201). Thus, one key investigation of the present study is to assess if regulatory focus itself is associated with emotional experience.

The present experiment is the first to assess the contribution of regulatory focus and success on emotional experience in daily life with an experience sampling method. It has been well established that regulatory focus can be induced by state manipulations of task and feedback type (Roney, Higgins, and Shah, 1995) and is also influenced by trait regulatory focus tendencies (Higgins, 1997). However, there have not been assessments of the influence that daily fluctuations in regulatory focus and success have on emotional experience. It could be the case that one’s level of regulatory success on a given day best predicts one’s emotional experience on that day or it could be that it is that day’s deviation from one’s regulatory baseline that best predicts emotional experience.
For example, if someone has a very high level of promotion success and experiences high levels of happiness, then their emotional experience reflects their total regulatory success. This total comprises both the trait-level of their promotion success baseline as well as fluctuations from their trait baseline on that day. Thus, emotional experience as a result of regulatory success reflects two levels of regulatory resolution that must be assessed. In other words, one’s regulatory baseline (i.e., trait level) may confer the best explanation of someone’s emotional experience in daily life. An alternative possibility is that it is not one’s regulatory focus or success baseline that matters, but rather deviations from this baseline that best explains daily emotional experience.

These possibilities are depicted in Figure 1, which depicts two people’s promotion success over 5 days with the days of interest circled. Please note that the promotion success “baseline” in Figure 1 (i.e., dashed vertical lines) is the average promotion success of the 5-day week depicted. On the circled day of interest in Figure 1, David rates his day an 80 in promotion success and Wallace rates his day a 90 in promotion success. Recall that regulatory focus theory predicts that promotion success results in happiness. It could be that David experiences less happiness on this day than Wallace because David has an objectively lower promotion successful day than Wallace. Or David could experience more happiness on that day because he experiences more promotion success than he usually does on that day. The crucial distinction is whether absolute regulatory success (i.e., a rating on a given day) or more regulatory success than usual (i.e., the deviation from one’s regulatory baseline) best predicts daily emotional experience. If absolute regulatory success matters most, then Wallace will experience more daily happiness on that day. However, if deviations from one’s regulatory baseline matter most (i.e., horizontal dotted lines), then David will experience more happiness because he is more promotion successful on that day than he usually is and his deviation from his own baseline is greater than Wallace’s.

There is another alternative that must be considered; Wallace may experience more happiness because he is, overall, a more promotion-successful person than David. An examination of all of these possible influences on daily emotion is necessary. Thus, in understanding what predicts daily emotion, a first assessment of someone’s “total”
regulatory state on a given day will be made and then decomposed into their trait-level regulatory baselines and deviations from their baselines. This will allow for an assessment of whether regulatory variables at trait levels or fluctuations from one’s trait baseline matter most in understanding daily emotional experience. One way of parsing apart these regulatory influences is through experience sampling methodology.

Figure 1. Promotion success levels, ranging from 0-100, for David and Wallace on 5 different days. The dashed vertical lines represent David (i.e., top vertical dashed line) and Wallace’s (i.e., bottom dashed vertical line) baseline promotion success for that week (i.e., the average). Each solid vertical line represents self-reported levels of promotion success on that specific day. The circled lines represent days where David and Wallace rated their promotion success that day as being 80 and 90, respectively. The top dotted horizontal line shows the baseline deviation of David’s day rated as 80. The bottom dotted horizontal line shows the baseline deviation of Wallace’s day rated as 90.

The present experiment assesses regulatory focus and success in predicting emotional experience in an experience sampling experiment over the course of 30 days. The Big Five personality dimensions were also collected and of those only conscientiousness, neuroticism, and extraversion were focused on as they relate most to regulatory focus theory. The overall goal of this experiment was to assess regulatory focus and success variables over time at different levels of analysis: total daily ratings, fluctuation ratings (i.e., fluctuations from baseline over time), and ratings at the trait level. From these ratings, an examination of how these different levels of analysis relate to emotional
experience and the role personality plays in this relation was conducted. Another aim was to understand what best predicts someone’s motivational orientation on a given day. Specifically, which level of analysis (e.g., total, fluctuation, or trait) of regulatory focus and success best predicts motivational orientation on a given day? In the present study, I assessed total daily factors as being the current or prior day’s regulatory focus and success averages. Fluctuation factors are regulatory focus and success baseline fluctuations on the current and previous day, and trait factors are personality and regulatory focus and success as averaged over the month for each participant.

First, I predicted the main findings from regulatory focus theory, which state that promotion success and failure result in happiness and sadness, respectively, and that for prevention success and failure people experience calm and anxiety, respectively (Higgins, 1997). Moreover, I expected that the magnitude of these emotion patterns would be titrated based on someone’s regulatory focus where if someone was highly prevention focused and highly prevention successful for that day they would experience higher daily calm than someone who was less prevention successful. The intensity of emotional experience related to goal outcomes is increased when goal strength is heightened (Weiner 1986; Higgins, Shah, & Friedman, 1997; Brockner & Higgins, 2001). In other words, motivational investment titrates the emotional experience of goal success and failure.

Similarly, since extraversion and neuroticism are good proxies for promotion and prevention focus respectively (Gorman et al., 2012), it is expected that they will interact with one another in ways that will mirror greater motivational investment. For instance, a highly neurotic person who is having a highly prevention-focused day is predicted to experience more calm if they are also prevention successful that day compared to someone who is less neurotic but similarly prevention successful. Since conscientiousness relates to both promotion and prevention focus (Gorman et al., 2012; Vianen et al., 2012), it is expected to interact along their respective regulatory emotions. Namely, conscientiousness interacts with promotion focus to predict more productivity and less work safety behaviours, which suggests that it augments the advancement, approach-orientation tendencies of promotion focus. Conversely, conscientiousness interacts with prevention focus to predict less productivity but more work safety behaviours suggesting that it
augments the safety, avoidance-orientation tendencies of prevention focus. Thus, I predict that conscientiousness will interact with promotion variables to predict daily happiness and sadness emotions involved in advancement, and to interact with prevention variables to predict daily anxiety and calm emotions involved in safety.

Lastly, I predicted that promotion and prevention focus on a given day will reflect trait-level variables where someone who is more trait promotion focused will be more promotion focused on a given day and vice versa for trait prevention focus. Moreover, I expected that if someone had a particularly unsuccessful day then they would switch strategies the next day. For example, if someone had a rather promotion unsuccessful day, then they may be more likely to adopt a prevention focus the next day. Whereas if someone had a rather prevention successful day they be more likely to stay with a prevention focus on the following day in the hope of continued goal success. Specifically, I predicted that unsuccessful promotion days would be more likely to precede prevention focused days because promotion focus is associated with being more flexible, broad in their attention, and more willing to switch strategies (Förster, Higgins & Idson, 1998; Liberman et al., 1999; Förster & Higgins, 2005). Thus, promotion focused people (e.g., at the trait and day level) may be more willing to switch motivational strategies following unsuccessful days. Conversely, prevention focused people may stay the course and maintain their prevention focus irrespective of goal outcome because prevention focus is associated with being more attentionally narrow, behaviourally rigid and less likely to switch strategies (Förster, Higgins & Idson, 1998; Liberman et al., 1999; Förster & Higgins, 2005).

One important caveat to note is that causality cannot be established because the exact temporal sequence of regulatory focus and success and emotion cannot be fully ascertained in the present experiment, but an overall assessment of influence can be elucidated. In sum, this experiment tested the predictions of regulatory focus theory in daily life in an experience sampling experiment. Specifically, the present study assessed if regulatory focus, beyond goal outcome, is associated with emotional experience as well as examined the various influencing factors on emotional experience based on personality and proximal (i.e., day level) and distal (i.e., trait level) regulatory variables.
Chapter 2
Experience Sampling Descriptives

2 Introduction

Regulatory focus comprises two orthogonal motivational orientations. Promotion focus concerns the pursuit of one’s hopes, dreams, and aspirations, and is sensitive to the presence and absence of rewards in the environment. Conversely, prevention focus concerns the pursuit of one’s duties, responsibilities, and obligations and is sensitive to the presence and absence of losses and punishments (Higgins, 1997). Regulatory focus is a dispositional factor in that people exhibit enduring tendencies to be more promotion or prevention focused, but regulatory focus can also be momentarily induced in experimental settings and tasks (Crowe & Higgins, 1997; Shah & Higgins, 2001). On any given day, a person’s regulatory focus is a function of their overall trait-level regulatory focus (i.e., their regulatory focus baseline) and their fluctuation-level of regulatory focus (i.e., deviations from their regulatory focus baseline). These first assessments will examine the variability of naturally occurring regulatory variables at the day and trait level.

2.1 Methods

2.1.1 Participants

A sample of 66 participants completed the experiment. Recruitment was done through University of Toronto’s psychology experiment pool consistent with the University of Toronto’s Research Ethics Board. Participants were screened for the presence of neurological and/or psychiatric condition or injury. Only participants without neurological or psychiatric condition and/or injury were included. Some participants were excluded for inconsistently completing the Daily Experiences Survey (n = 7). In total, 59 participants were included in analyses (43 females; M_{age} = 19.05, SD = 1.03)
2.1.2 Procedure

Participants completed all consent, questionnaire materials, and debriefing forms remotely via Qualtrics software (Qualtrics, Provo, UT). Participants completed a one-time questionnaire battery that included The Big Five Aspects Scale (BFAS) and the Self-Regulatory Focus Questionnaire (SRFQ). The Daily Experiences Survey (DES) was completed every evening for 30 days. The questionnaire battery was randomized and participants either completed it in the beginning or at the end of the Emotion Experience Sampling experiment. An email containing a Qualtrics link to the DES was sent out at 9 PM every evening for the 30 days following the beginning of the experiment (days of DES completion $M = 29.54$, $SD = 4.63$). Participants who missed 4 days in a row were excluded from the experiment.

2.1.3 Self-Report Measures

2.1.3.1 Big Five Aspects Scale (BFAS)

The Big Five Aspects Scale (BFAS) is a 100-item personality trait questionnaire. The BFAS items map onto five general personality domains: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. For the purposes of the present study, only Conscientiousness, Neuroticism, and Extraversion will be examined with regulatory variables in predicting daily emotional experience. Each personality domain comprises two sub-factors. The Extraversion domain includes the enthusiasm and 9 assertiveness factors. The Conscientiousness domain includes the industriousness and orderliness factors. The Neuroticism domain includes the volatility and withdrawal factors. Participants rate how much they agree with each of the items on a 5-point Likert scale. The validity of the BFAS has been well demonstrated (DeYoung, Quilty, & Peterson, 2007). For the purposes of the present experiment, only conscientiousness, neuroticism, and extraversion were examined as they most closely relate to regulatory focus and success variables. See Table 1 for descriptive statistics for personality and regulatory variables at the trait and day level.
2.1.3.2 Daily Experiences Survey (DES)

Two commonly used questionnaires to assess regulatory focus are the regulatory focus questionnaire (RFQ, Higgins et al., 2001) and the general regulatory focus questionnaire (GRFQ; Lockwood, Jordan, & Kunda, 2002). The RFQ has been shown to capture the self-guide aspect of regulatory focus theory where promotion focus reflects the “ideal” self-guide that reflects one’s personal, internal goals of their hopes, dreams, and aspirations, whereas prevention focus reflects an “ought” self-guide that involves fulfilling socially imposed and internalized duties, obligations, and responsibilities that someone personally values (Summerville & Roese, 2008). The GRFM, on the other hand, was shown to be related to the reference-point definition of regulatory focus theory where promotion focus represents a “gain” reference point and organizes behaviour toward matching gain situations and avoiding non-gain situations (Higgins, 1997; Summerville & Roese, 2008). Conversely, prevention focus represents a negative reference point of a “loss” and organizes behaviour towards avoiding situations of loss and approaching situations of non-loss.

Summerville & Roese (2008) found that the GRFM mapped onto approach and avoidance measures, and also found that promotion and prevention focus mapped onto positive and negative affect respectively. However, regulatory focus theory claims affect independence and the RFQ also shows affect independence, thus reference point-based scales, such as the GRFM, may not adequately capture the orthogonal affect aspects of regulatory focus theory. The Daily Experiences Survey (see Appendix A) was created for the present study as a measure that incorporated both self-guide (i.e., hopes, dreams, aspirations, and duties, responsibilities, and obligations) and reference point measures (i.e., rewards, successes, opportunities, and risks and failures).

The DES consisted of 24 questions. These questions were generated from regulatory focus theory and to assess regulatory focus and success experience, general affect as well as the daily experience of specific emotions (i.e., anger, fear, anxiety, sadness, happiness, and calm). Promotion work, focus, and success was determined by asking participants how
much work, focus, and success they had in that day with their hopes, dreams, and aspirations. Prevention work, focus, and success was determined by asking participants how much work, focus, and success they had in that day with their hopes, dreams, aspirations and opportunities as well as their responsibilities, obligations, and duties. The DES items are on a Likert scale ranging from 0-100, the only exceptions being the frequency of emotions questions which are on a Likert scale of 0-10 with any emotion occurring more than 10 times per day being recorded as 11.

The promotion focus variable was computed as the average of questions about how much time people spent thinking about their hopes, dreams, and aspirations and seeking new opportunities as well as how much they focused on potential rewards and successes (i.e., DES items 15, 20, and 23, $\alpha = .82$). The prevention focus variable was computed as the average from questions about how much time someone spent thinking about their responsibilities, obligations, and duties as well as how much they focused on potential risks and failures (i.e., DES items 17 and 24, $r = .38$). The promotion success variable was computed as the average from questions about how successful someone was in their hopes, dreams, and aspirations as well as new opportunities (i.e., DES items 16 and 22, $r = .54$). The prevention success variable was the daily total from the question about how successful someone was in their responsibilities, obligations and duties (i.e., DES item 19). The emotions examined in this study were sadness, happiness, calm, and anxiety. They were computed from the total frequency and intensity of those emotions experienced for that day. The day-level variables of emotion and regulatory focus and success were these daily totals and were group-mean centered. All trait variables were made as the average over the course of the month of data collection and were group-mean centered. All fluctuation variables were daily regulatory focus and success variables that were centered around each participant’s own mean. See Table 1 for descriptive statistics for personality and regulatory variables at the trait and day level.

It is important to note that the DES did not explicitly measure promotion or prevention failure. Thus, the present study only assessed success at high and low levels (i.e., 1 SD above and below the group mean) as well as at high and low levels fluctuating from each
participants’ individual trait level (i.e., 1 SD above and below their computed monthly average). Therefore, it is unclear if low levels (i.e., compared to the group mean) or lower than usual levels of success (i.e., compared to individuals’ own mean) actually represent regulatory failure. However, an assessment of how success fluctuations are associated with emotion in daily life is possible and will be compared to predictions from regulatory focus theory.

2.1.3.3 Self-Regulatory Focus Questionnaire (SRFQ)

The Self-Regulatory Focus Questionnaire (SRFQ) assesses regulatory focus with 4-items that consists of two subscales (Cunningham, Raye, & Johnson, 2005). Each subscale taps into trait promotion and trait prevention focus separately. Two of the items measure trait promotion focus and include the items: “I focus on opportunities that will enhance my life” and “I am primarily motivated by seeking potential successes”. The other two items measure prevention focus and include: “I focus on ensuring that I will avoid potential mishaps or negative events” and “I am primarily motivated by avoiding failure”. Participants rate the degree to which they agree with each statement on a 6-point Likert Scale with higher numbers indicating more agreement. This scale has been shown to correlate positively and highly with other regulatory focus measures indicating good validity (Farb & Cunningham, 2005).

Importantly, promotion and prevention variables from the SRFQ correlated with regulatory variables computed from the DES. Specifically, bivariate correlations showed a positive moderate association between promotion focus from the SRFQ and trait promotion focus (i.e., participants’ 30-day average) from the DES ($r = .33, p < .01$). Whereas there were only weak correlations between SRFQ promotion focus and the other DES regulatory variables ($r_{trait\_promotion\_focus} = .21, p < .01$; $r_{trait\_promotion\_success} = .24, p < .01$; $r_{trait_prevention\_focus} = .13, p < .01$; $r_{trait_prevention\_success} = .08, p < .01$; $r_{trait\_promotion\_success} = .17, p < .01$). Thus, there is moderate
support for the DES trait promotion and prevention focus variables being positively associated with a validated regulatory focus questionnaire.

2.1.4 Statistics

All multilevel analyses were conducted using the lme4 package (Bates et al., 2015) in the R programming language (R Core Team, 2017) using Satterthwaite degrees of freedom estimation. All multilevel models contained 2-levels with days nested within participants and a random intercept was modeled for each participant. For all multilevel models, ts were transformed into correlation coefficients (i.e., ES r) for significant predictors, thus allowing for comparative effect size assessments (Kashdan & Steger, 2006). All interaction simple slopes were also analyzed according to recommendations by Aiken & West (1991).

2.2 Results

First, I computed trait levels of regulatory variables as the average promotion and prevention focus and success for each participant over the 30 days of data collection (see Figure 1). As you can see in Figure 1, trait levels of promotion and prevention focus and success vary from person to person. Interestingly, prevention focus (M = 43.65, SD = 15.58) and success (M = 50.17, SD = 19.53) are higher, on average, than promotion focus (M = 34.85, SD = 18.43) and success (M = 32.66, SD = 20.13) at the trait level. To determine if promotion and prevention focus and success varied from day-to-day, I also examined each participants’ standard deviation of these trait variables which reflect their own monthly average (see Figure 2). As you can see from Figure 2, if regulatory variables did not fluctuate within people from day-to-day then the plots would show narrow clustering around zero. However, there is considerable spread and variation within these variables, thus illustrating how these variables are not static. A bivariate correlation matrix of regulatory variables, daily emotions, and personality dimensions means (see Table 2) was also computed.
Figure 2. Density plots depicting trait levels (i.e., participants’ monthly means) of promotion and prevention focus and success for each participant over the month of data collection.
Figure 3. Density plots depicting participants’ standard deviations of their trait promotion and prevention focus and success over the month of data collection.
2.3 Discussion

Individual differences represent a source of variability in understanding how behaviour manifests differently across people and across diverse situations. The present set of analyses showed that regulatory focus in natural settings varies both within and between people. At the trait-level, promotion and prevention focus and success vary from person-to-person. Interestingly, on average, people are more prevention focused and successful than they are promotion focused and successful. It could be that students are more often prevention focused than promotion focused. As people confront looming goal deadlines they tend to abandon abstract considerations and focus on specific, concrete aspects of goal pursuit (Trope & Liberman, 2000). Moreover, approaching deadlines makes people more sensitive to possible risks and barriers to goal success (Liberman & Trope, 1998). This concrete and risk-averse mindset closely resembles prevention focus where local processing and security needs are prioritized (Forster and Higgins, 2005). Moreover, students adopt both promotion and prevention concerns, but promotion concerns are valued more for distant goals. However, once that goal looms nearer students devalue promotion concerns, but their prevention concerns remain the same (Pennington and Roese, 2003). Thus, higher levels of prevention focus and success could reflect the fact that students face constantly looming deadlines and goals that must be addressed with expediency.

Importantly, people vary from day-to-day in their promotion and prevention focus and success. This makes sense given that goals with different temporal constraints benefit from different mindsets. Promotion focus frames goals as maximal goals that people desire to achieve, which results in broadened attention, creative thinking, more solution generation and a willingness to switch tasks (Liberman et al., 1999; 2001; Idson et al., 2000). Thus, promotion focus is best suited to more distant goals. Conversely, prevention focus frames goals as minimal goals one must achieve. Prevention focus is best employed when time constraints make the finitude of resources salient, which results in the characteristic mindset of prevention focus (e.g., vigilance, local processing, sensitization to loss). Thus, adaptive goal pursuit requires flexibility in regulatory deployment. This flexibility raises
an interesting question in that regulatory focus behaves like a personality characteristic but
also as a situation-bound factor (Higgins, 1997, 1998). Past research has shown that
chronic, trait-like regulatory focus and situationally-induced regulatory focus confer
similar results (Forster et al., 1998; Idson et al., 2000; Liberman et al., 1999). One
question that can be asked is if the source of variability in regulatory focus and success
influences daily emotion differently in naturally occurring settings. Regulatory focus
theory makes specific predictions about emotional experience and naturally occurring
regulatory focus and success do indeed fluctuate in daily life. The next set of analyses
explores whether trait levels and daily fluctuation levels of regulatory focus influence
daily emotion in ways that would be predicted by regulatory focus theory.
Chapter 3
Emotion Experience Sampling and Regulatory Focus

3 Introduction

Regulatory focus makes specific predictions about emotional experiences that result from goal successes and failures (Higgins, 1997). Although these predictions have been supported in laboratory settings (Roney, Higgins, and Shah, 1995; Higgins, Shah & Friedman, 1997) they have not been tested in naturalistic settings over time in daily life. This is the first study where regulatory focus has been assessed using an experience sampling method (ESM) to explore how naturally occurring regulatory states predict daily emotional experiences. I showed in Chapter 2 that regulatory focus and success vary with and between people. The present set of analyses examines how regulatory fluctuations are related to daily emotional experience. Recall that regulatory focus predicts that under a promotion focus, success and failure will be experienced as happiness and sadness respectively. Conversely, prevention success and failure will be experienced as calm and anxiety respectively. Please see Figure 3 for a graphical depiction.

This first set of analyses tested the emotional predictions made by regulatory focus theory across 30 days of data collection. Daily emotion and motivational experiences were assessed over time, which allows for a unique test of the regulatory focus predictions in naturalistic settings. An experience sampling approach allows for a more nuanced examination of how daily emotional experiences of happiness, calm, anxiety and sad are functions of promotion and prevention success and focus at different levels of analysis and over time. On any given day, a person’s regulatory focus is a function of their overall trait-level regulatory focus (i.e., their regulatory focus baseline) and their fluctuation-level of regulatory focus (i.e., deviations from their regulatory focus baseline). Experience sampling methods capture a person’s “total” regulatory focus (i.e., baselines and fluctuations from baseline) on a given day as well as how those days vary throughout time. This methodological approach allows for an assessment of day-level influences of total regulatory focus variables (i.e., group mean centered) on daily emotion as well as influences of regulatory variable fluctuations (i.e., participant mean centered).
Disentangling these different levels of resolution will elucidate whether trait-level a given day matters most in an absolute sense or if it’s actually the regulatory focus traits or fluctuations that matter most in understanding daily emotion.

Specifically, at the day-level, does someone who has a higher promotion successful day experience more happiness compared to others with a less promotion successful day? It could be the case total levels of regulatory focus and success on a given day matter most in understanding daily emotional experience. Another possibility is that someone’s success fluctuations, deviations from one’s own baseline, actually matter more in predicting daily emotional experience. Someone having a less promotion successful day than they usually have may experience more daily sadness compared to someone with a more successful day in an absolute sense.

Table 3 illustrates the above-described relationship to clarify these predictions. David and Wallace each have different levels of absolute promotion success on Wednesday. Wallace has a total higher level of success than David for that day, but David’s daily promotion success represents a relative increase compared to his overall promotion success for that week. A critical question is whether Wednesday is experienced as happier for Wallace or for David. An experience sampling method gives adequate resolution to address this question.

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<td>Wallace</td>
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Table 3. A week depicting daily promotion success levels. David has a less promotion successful Wednesday than Wallace, but David is more successful on Wednesday than he is usually is compared to Wallace.

If total success matters most then Wallace should have a happier Wednesday than David, but if success fluctuations matter most, then David will have a happier Wednesday. Another possibility is that the superordinate trait-levels of regulatory focus and success matter most in predicting daily emotion. To answer these questions, I will first assess how
total day-level regulatory success predicts daily emotion. Secondly, I will assess the day-level role of regulatory focus, and then we will examine how day-level success and focus main effects and interactions predict daily emotion. Lastly, I will assess how trait levels of regulatory focus and success and their daily fluctuations (i.e., deviations from one’s own monthly mean) predict daily emotion.

Regulatory focus theory predicts that different daily emotions experienced over the course of the month will map onto different regulatory states, namely that promotion success and failure will be related to happiness and sadness respectively, and that prevention success and failure will be related to calm and anxiety respectively (Roney, Higgins, and Shah, 1995; Higgins, Shah & Friedman, 1997). The reasoning here is that these emotions that are differentially experienced in regulatory focus outcomes support feelings of eagerness (i.e., happiness for promotion success) and vigilance (i.e., anxiety for prevention failure), which adaptively undergird each foci’s preferred state of motivational orientation and allow for continued focus and pursuit under each foci. Thus, these different regulatory orientations are associated with different emotions as well as an inversion of arousal for success and failure. In other words, promotion success is associated with high arousal positive affect (i.e., happiness) and promotion failure involves low arousal negative affect (i.e., sadness). Whereas, prevention success involves low arousal positive affect (i.e., calm) and prevention failure involves high arousal negative affect (i.e., anxiety). Accordingly, these negative experiences may be greater for prevention-focused people because failure is experienced more strongly under a prevention focus, whereas positive emotions would be greater for highly promotion focused and successful people (Idson, Lieberman, & Higgins, 2000).

Regulatory focus theory also predicts that on days where someone is highly focused and less successful that negative emotions will be more prevalent. It has been empirically shown that the greater the degree of motivational involvement, the greater the emotionality experienced upon goal success or failure (Weiner, 1986; Brockner & Higgins, 2001). One of the central strengths of regulatory focus theory is that it makes predictions about emotional experience related to goal success and failure under the different foci (see Figure 2). However, in these predictions regulatory focus theory does not differentiate
focus from success relating to emotional experience. It presupposes that promotion success occurs under a promotion-focused orientation and that prevention success occurs under a prevention-focused orientation. At the very least, it assumes that regulatory focus itself is not related to emotional experience.

![Figure 4. Emotion predictions based on success or failure under promotion and prevention focus. Dotted line shows the high arousal emotions, solid line shows low arousal emotions.](image)

However, because promotion and prevention are theoretically independent motivational systems there may be cross over interactions between. Specifically, promotion and prevention focus may interact to predict emotional experience or promotion success and prevention focus may interact to predict daily emotion. Moreover, regulatory focus itself could relate to emotional experience above and beyond goal outcomes. It could be that someone merely thinking about their hopes, dreams, aspirations and future rewards experiences more positive emotions (e.g., happiness, calm), whereas someone who is mostly preoccupied with their duties, responsibilities, obligations and potential losses experiences more negative emotions (e.g., anxiety, sadness). Thus, one aim of the present study is to disentangle regulatory focus from regulatory success and examine how these elements may differentially relate to emotional experience in daily life.
3.1 Results

3.1.1 Predicting Emotion from Regulatory Success

As noted earlier, regulatory focus theory predicts that specific emotions arise from successes and failures under different goal orientations. Specifically, success under a promotion focus is experienced as happiness/elation, whereas success under a prevention focus is experienced as calm/relief. Goal failure under promotion focus is experienced as sadness/dejection, and prevention failure is experienced as anxiety/agitation.

To examine these regulatory hypotheses in daily life, I conducted a series of multilevel models that predicted daily emotions from different aspects of promotion and prevention focus and success. In the first model, I considered only daily promotion and prevention success, which are the most proximal variables for emotion. Because I was interested in the levels of daily emotion, in the following random-intercept multilevel models, promotion and prevention success were group-mean centered and used as predictors for each emotion (i.e., happy, sad, anxiety, calm). Specifically, each emotion was modeled as:

\[ \text{Emotion} = \beta_0 + \beta_1 \text{PromotionSuccess} + \beta_2 \text{PreventionSuccess} \]

As such, this model examined how total daily promotion and prevention success explained variation in daily emotional experience. It was expected that daily success outcomes (i.e., high and low) would map onto the specific associated emotions as predicted by regulatory focus theory. Consistent with these hypotheses, daily promotion success predicted more daily happiness by, \( b = .15, SE = .02, t(1694) = 9.10, p < .01, \text{ES } r = .22 \), and less daily sadness, \( b = -.04, SE = .14, t(1673) = -2.79, p < .01, \text{ES } r = .07 \) (see Table 4). Prevention success predicted more daily happiness, \( b = .03, SE = .01, t(1694) = 2.03, p = .04, \text{ES } r = .05 \), though the effect was smaller than that of promotion success. Prevention success showed no relationship to daily sadness, \( b = -.009, SE = .01, t(1759) = -.82, p = .41 \).

Interestingly, although the results of happiness and sadness fit the predictions of regulatory focus theory as being related to promotion success, anxiety and calm were predicted from both promotion and prevention success. Specifically, more daily calm was predicted from both promotion success, \( b = .01, SE = .02, t(1761) = 5.74, p < .01, \text{ES } r = .14 \), and
prevention success, \( b = .06, SE = .01, t(1753) = 4.05, p < .05, ES r = .10 \). Interestingly, promotion and prevention success had opposite relationships to daily anxiety. Promotion success was associated with less anxiety, \( b = -.04, SE = .02, t(1727) = -2.55, p = .01, ES r = .06 \), whereas prevention success was associated with more anxiety, \( b = .03, SE = .01, t(1761) = 2.00, p = .05, ES r = .05 \). On the surface, this appears to contradict regulatory focus theory. However, it’s possible that regulatory focus, above and beyond regulatory success, is associated with emotional states, and that anxiety may be associated with prevention focus.

### 3.1.2 Predicting Emotion from Regulatory Focus

It was hypothesized that simply adopting one focus over the other, at the trait or day-level, could confer specific emotions. In other words, the reason that anxiety was associated with prevention success could be because anxiety is associated with prevention focus – or the potential of a negative outcome – rather than prevention success as an acute, daily goal outcome. The second set of analyses sought to examine the effects of daily regulatory focus on daily emotion experience. Thus, both PromotionFocus and PreventionFocus were group-mean centered and a random intercept was modeled for each participant. As such, this model examined how daily promotion and prevention focus might explain variation in daily emotional experience:

\[
\text{Emotion} = \beta_0 + \beta_1 \text{PromotionFocus} + \beta_2 \text{PreventionFocus}
\]

Consistent with my hypotheses, daily prevention focus was associated with greater daily anxiety, \( b = .25, SE = .02, t(1761) = 14.48, p < .01, ES r = .33 \), and less calm, \( b = -.09, SE = .02, t(1751) = -4.84, p < .01, ES r = .11 \). Prevention focus was also associated with less daily happiness, \( b = -.12, SE = .02, t(1762) = -6.88, p < .01, ES r = .16 \), and more daily sadness, \( b = .08, SE = .01, t(1756) = 5.29, p < .01 \). This suggests that a general daily focus on prevention-oriented goals (i.e., duties, obligations, responsibilities, potential risks and failure) is associated with more negative and fewer positive daily emotions. This broader prevention focus may explain the unexpected finding that prevention success was related to higher daily anxiety (i.e., as a third variable). Interestingly, daily promotion focus was associated with greater happiness, \( b = .28, SE = .02, t(1684) = 13.35, p < .01, ES r = .31 \).
and greater calm, $b = .18$, $SE = .02$, $t(1751) = 8.47$, $p < .01$, ES $r = .20$. Additionally, promotion focus was associated with less negative daily emotion in general. Promotion focus predicted less daily anxiety, $b = -.11$, $SE = .02$, $t(1604) = -5.43$, $p < .01$, ES $r = .13$, and sadness, $b = -.09$, $SE = .02$, $t(1515) = -5.28$, $p < .01$, ES $r = .13$. This suggests that merely focusing on promotion goals (i.e., hopes, dreams, aspirations, as well as future rewards) is associated with more positive and fewer negative daily emotions.

Regulatory focus theory makes predictions about regulatory success relating to specific emotional experience. However, these data suggest that specific emotions are associated with regulatory focus itself. Moreover, these results also show a general inversion of valence for promotion and prevention focus. As shown in Table 5, promotion focus predicted more daily positive emotions and less daily negative emotions, whereas prevention focus predicted more negative and less positive emotions. Thus, merely focusing on one’s hopes, dreams, aspirations and potential rewards is associated with more positive daily emotions and fewer negative daily emotions, whereas focusing on one’s duties, obligations, responsibilities, and risks and potential failures is associated with more daily negative emotions. The next set of analyses will include both regulatory success and focus in one model to assess the relative contributions of focus and success in predicting daily emotion.

### 3.1.3 Predicting Emotion from Regulatory Focus and Success

Thus far, I have demonstrated that, in accordance with predictions of regulatory focus theory, regulatory (i.e., promotion and prevention) success was associated with more daily calm and happiness, whereas promotion success specifically predicted lower daily anxiety and sadness. Prevention success was unrelated to sadness and was associated with increased daily anxiety. I have also demonstrated, counter to regulatory focus theory but consistent with my hypotheses, that daily regulatory focus itself can also predict daily emotional experience. Specifically, promotion focus was associated with more positive and less negative daily emotions, whereas prevention focus showed the opposite pattern. To more systematically evaluate these variables, I computed a more complex multilevel model that including both promotion and prevention focus and success terms to predict the daily emotions. All regulatory variables, PromotionSuccess, PreventionSuccess,
PromotionFocus and PreventionFocus were group-mean centered and a random intercept was modeled for each participant:

\[
\text{Emotion} = \beta_0 + \beta_1 \text{PromotionFocus} + \beta_2 \text{PreventionFocus} + \beta_3 \text{PromotionSuccess} + \beta_4 \text{PreventionSuccess}
\]

Daily promotion focus in this model was still associated with an increase in the positive daily emotions of happiness, \(b = .22, SE = .03, t(1703) = 8.47, p < .01, ES r = .20\), and calm, \(b = .12, SE = .03, t(1759) = 4.69, p < .01, ES r = .11\), and a decrease in the negative emotions of sadness, \(b = -.08, SE = .02, t(1654) = -3.56, p < .01, ES r = .09\), and anxiety, \(b = -.08, SE = .02, t(1702) = -3.34, p < .01, ES r = .08\) (see also Table 6). Interestingly, after taking promotion focus into account, daily promotion success was only related to an increase in the positive emotions of happiness, \(b = .07, SE = .02, t(1754) = 3.31, p < .01, ES r = .08\), and calm, \(b = .05, SE = .02, t(1755) = 2.52, p = .01, ES r = .06\). Promotion success was no longer predictive of daily sadness, \(b = -.009, SE = .02, t(1741) = -0.59, p = .55\), or anxiety, \(b = -.02, SE = .02, t(1754) = -1.09, p = .28\). Thus, daily promotion success appears to be particularly related to daily happiness and calm, whereas promotion focus is more generally related to daily increases in positive emotion and decreases in negative emotion. See Figures 5 and 6 for regulatory main effects predicting daily sadness and happiness, respectively.
Figure 5. Daily regulatory main effects predicting daily sadness. Daily promotion focus (top left panel), daily prevention focus (top right panel) and daily prevention success (bottom right panel) significantly predicted daily sadness. Daily promotion success (bottom left panel) was not significantly associated with daily sadness.
Daily prevention focus once again showed the opposite relationship. Specifically, daily prevention focus was still associated with increases in daily negative emotions of sadness, $b = .08, SE = .02, t(1746) = 5.72, p < .01, ES r = .14$, and anxiety, $b = .26, SE = .02, t(1760) = 14.56, p < .01, ES r = .33$, and decreases in the positive emotions of happiness, $b = -.14, SE = .02, t(1760) = -7.50, p < .01, ES r = .08$, and calm, $b = -.12, SE = .02, t(1747) = -6.18, p < .01, ES r = .15$. Moreover, prevention success showed the inverse relationships with positive and negative emotions compared to prevention focus.

Prevention success was associated with decreases in sadness, $b = -.03, SE = .01, t(1758) = -2.35, p = .02, ES r = .06$, and anxiety, $b = -.04, SE = .01, t(1760) = -2.78, p < .01, ES r = .07$, and increases in happiness, $b = .05, SE = .01, t(1760) = 3.49, p < .01, ES r = .06$, and
In other words, daily prevention focus predicts the opposite effects of daily prevention success on daily emotional experience. Daily prevention focus predicted more negative and less positive emotion, whereas daily prevention success predicts the converse. See Figures 7 and 8 for daily regulatory main effects predicting daily anxiety and calm, respectively.

Figure 7. Daily regulatory main effects predicting daily sadness. Daily promotion focus (top left panel), daily prevention focus (top right panel) and daily prevention success (bottom right panel) significantly predicted daily sadness. Daily promotion success (bottom left panel) was not significantly associated with daily anxiety.
Figure 8. Daily regulatory main effects predicting daily sadness. All daily regulatory focus and success variables significantly predicted daily calm.

Therefore, these results support the idea that promotion focus and prevention success are broadly related to increases in positive emotion and decreases in negative emotion, whereas prevention focus is broadly related to increases in negative emotion and decreases in positive emotion. Promotion success is specifically related to increases in positive emotion only (e.g., happiness and calm). Regulatory focus theory states that promotion failure should relate to increases in daily sadness. I found no relationship between promotion success and daily sadness, but suggest that this could be due to the overall association between promotion focus and decreased negative emotion. In this construal, a lack of promotion focus may not confer appreciable increases to the already-diminished
levels of negative emotion under a promotion focus. Prevention success, on the other hand, was associated with increases in positive emotion and decreases in negative emotion. This could be due to prevention focus conferring generally higher levels of negative emotion and lower levels of positive emotion. However, it is unclear how these variables interact with one another within regulatory frames. The next set of analyses will address the possibility of interacting relationships between regulatory focus and success variables in predicting daily emotional experience.

3.1.4 Predicting Emotion from within Regulatory Interactions

The previous analyses showed that that simply being in a specific regulatory focus relates to daily emotional experience above and beyond success outcomes, which suggests that regulatory focus may augment the influence of regulatory success on emotional experience. For example, a highly prevention focused person who experiences low prevention success on a certain day may experience more anxiety than a less prevention focused individual. Indeed, the greater one’s regulatory focus the more intense their emotional responses associated with goal attainment (Higgins, Shah, & Friedman, 1997). This association between regulatory focus strength and emotional strength may still hold in goal pursuit in daily life. The aims of the present set of analyses were to evaluate if regulatory focus interacts with success to in predicting daily emotional experience. To examine this possibility daily emotional experience was predicted from the interaction of promotion focus and promotion success and the interaction of prevention focus and prevention success with the following base model. All regulatory variables, PromotionSuccess, PreventionSuccess, PromotionFocus and PreventionFocus were group-mean centered and a random intercept was modeled for each participant. As such, this model examined how daily promotion and prevention focus and success interactions explained variation in daily emotional experience:

\[
\text{Emotion} = \beta_0 + (\beta_1\text{PromotionFocus} \ast \beta_2\text{PreventionFocus}) + (\beta_3\text{PromotionSuccess} \ast \\
\beta_4\text{PreventionSuccess})
\]

Importantly, the findings from the previous section were replicated despite the inclusion of the interaction terms (refer to Figures 5-8 for main effects). Model terms that participate in
higher order interactions are discussed only with respect to the interaction term (see Table 7 for model effects). In sum, prevention focus and success relate to opposite patterns of positive and negative emotional experience. Prevention focus is related to more negative and less positive emotions, whereas prevention success is related to more positive and less negative emotion thereby mirroring the effects of promotion focus. Promotion success is only related to positive emotion, but promotion focus itself is related to more positive and less negative emotion.

There were several interactions between regulatory success and focus in predicting daily emotional experience, which lends further support to prior evidence showing that increased regulatory focus potentiates the emotional responses to goal outcomes (Higgins, Shah, & Friedman, 1997). Specifically, there were interactions between daily promotion focus and success and daily prevention focus and success predicting the daily emotions of sadness, happiness, calm, anxiety, and calm. For the sake of clarity, I will address the interactions within each emotion separately.

*Interactions predicting daily sadness*

Promotion focus and success interacted to predict less daily sadness, \( b = -.001, \ SE = .0005, t(1741) = -2.35, p = .02, ES r = .06 \) (see Figure 9, left panel). Daily sadness was not associated with daily promotion focus at low levels of promotion success, \( t(1702) = -1.83, p = .22 \). However, at high levels of promotion success, promotion focus predicted the daily sadness, \( t(1640) = -3.95, p < .01 \). When promotion focus was low, higher promotion success was associated with greater daily sadness than low promotion success. However, promotion success did not predict daily sadness at high, \( t(1736) = -1.83, p = .07 \) (i.e., far right), or low levels of promotion focus, \( t(1737) = .86, p = .39 \) (i.e., far left). Daily sadness was lowest under high promotion success and high focus, whereas the same level of success under low promotion focus was associated with more daily sadness. This unexpected finding suggests that promotion success alone is not sufficient for decreases in daily sadness. Thus, although regulatory focus theory predicts that low promotion success should be related to increased sadness, I demonstrate that this relationship only holds when promotion focus is high. High levels of promotion focus in tandem with positive
goal outcomes are the most important for decrements in daily sadness. These patterns only emerge when regulatory focus is teased apart from regulatory success in understanding daily emotion.

![Figure 9](image)

Figure 9. Simple slopes at 1 SD above and below the mean for the interactions between daily promotion focus and success (left panel) and prevention focus and success (right panel) in predicting daily sadness.

Additionally, daily prevention focus and success interacted to predict daily sadness, $b = -.001, SE = .0004, t(1756) = -2.92, p < .01$, ES $r = .07$ (see Figure 9, right panel). When daily prevention focus was low, there was no relationship with prevention success in predicting daily sadness, $t(1751) = -.52, p = .61$. However, when prevention focus was high, low prevention success was associated with significantly greater daily sadness than high prevention success, $t(1756) = -3.71, p < .01$. Specifically, daily sadness was highest when someone was high in prevention focus, but low in prevention success. These results suggest that daily sadness is only impacted by prevention success when prevention focus is high.

Under prevention focus, the event of interest is threat and/or failure. High prevention focus and low prevention success represent high motivational investment in avoiding something unsuccessfully. Thus, daily sadness may be highest under these conditions because they
represent the most salient and negative conditions for someone under a prevention focus. In sum, high sadness seems to reflect low promotion focus irrespective of success levels. High promotion focus predicted the least sadness. Conversely, sadness also seems to be related to high prevention focus with low prevention success predicting the most daily sadness and high prevention success predicting less sadness.

Interactions predicting daily happiness

Also in support of regulatory predictions was the association of daily happiness and promotion success. There was a promotion focus X promotion success interaction, $b = -0.001$, $SE = 0.0006$, $t(1756) = -1.97$, $p = .04$, ES $r = .05$ (see Figure 10, left panel). Happiness was highest when promotion focus was high irrespective of promotion success, $t(1754) = 1.90$, $p = .06$. This suggests that being promotion focused confers a resiliency in positive emotion despite goal setbacks. Having low daily promotion focus resulted in the least happiness for low promotion successful days, $t(1754) = 3.93$, $p < .01$. Lastly, promotion focus predicted daily happiness at both high, $t(1707) = 6.41$, $p < .01$ and low levels of promotion success, $t(1739) = 7.78$, $p < .01$. These results highlight how daily happiness is mostly a function of daily promotion focus, and that promotion success matters more when promotion focus is low. So, merely thinking about achieving your goals, hopes, and dreams confers happiness that is not affected by low levels of promotion success at high levels of promotion focus.
Interestingly, the opposite associations were found for prevention success and focus interacting to predict daily happiness, $b = .002, SE = .0005, t(1750) = 3.48, p < .01, ES r = .08$ (see Figure 10, right panel). Here, daily happiness was related to low prevention focus. When prevention focus was low, there was no effect of prevention success on daily happiness, $t(1758) = 1.20, p = .23$. When prevention focus was high, lower prevention success was associated with significantly lower daily happiness than high prevention success, $t(1750) = 4.92, p < .01$. Happiness was lowest when someone was high in prevention focus but low in success. These results suggest that lower prevention focus is associated with happiness more generally, while happiness in high prevention focus depends on prevention success. Thinking about achieving your hopes, dreams, and aspirations and not thinking too much about your duties, obligations and potential failures result in the most daily happiness.

**Interactions predicting daily anxiety**

Turning to daily anxiety, regulatory focus theory predicts that anxiety results from a lack of prevention success. In line with theory, anxiety was predicted by prevention focus and success interacting, $b = -.002, SE = .0005, t(1752) = -2.65, p < .01, ES r = .06$ (see Figure 11, right panel). Anxiety was not predicted by someone’s prevention success if prevention focus was low, $t(1758) = -1.01, p = .31$. However, when prevention focus was high, higher prevention success was associated with lower daily anxiety, $t(1751) = -3.84, p < .01$. Anxiety seemed to be mostly related to high prevention focus, which involves thinking seriously about one’s duties, responsibilities and potential future losses. These results support the earlier findings, in the previous sections, regarding the idea that prevention focus itself is associated with negative emotion, and that even highly successful days do not mitigate the association of prevention focus with anxiety. This relationship can also be seen with low prevention success predicting more anxiety, especially if someone is highly prevention focused. Thus, prevention focus exacerbates the anxiety associated with low
prevention success. Daily anxiety was unrelated to promotion focus and success interactions, \( b = -.0009, SE = .0006, t(175) = -1.69, p = .09 \) (see figure 11, left panel).

![Graph showing daily anxiety levels at different levels of promotion and prevention focus success.](image)

Figure 11. Simple slopes at 1 SD above and below the mean for the interactions between promotion focus and success (left panel, interaction is not significant) and prevention success and focus in predicting daily anxiety (right panel).

**Interactions predicting daily calm**

Regulatory focus theory predicts that calm results from prevention success, but the results showed that the interaction between prevention focus and success was unrelated to daily calm, \( b = .0004, SE = .0005, t(1734) = .82, p = .41 \) (see Figure 12, right panel). In fact, only promotion success and focus interacted to predict daily calm, \( b = .001, SE = .0006, t(1752) = 2.37, p = .02, ES r = .06 \) (see Figure 12, left panel). When promotion focus was low, there was no association between promotion success and daily calm, \( t(1753) = .62, p = .54 \). Promotion success only predicted daily calm under high promotion focus, \( t(1753) = 3.43, p < .01 \). Daily calm was highest when daily promotion focus and success were both high. Although daily calm was only related to promotion focus and success interactions, the main effects of prevention focus, \( t = -6.22, ES r = .15 \), and success \( t = 5.47, ES r = .13 \), were the strongest in predicting levels of daily calm.
In sum, all of these patterns suggest that promotion and prevention focus involve opposite effects on positive and negative emotions. Promotion focus is associated with increased positive and decreased negative emotion, whereas prevention focus is associated with decreased positive emotion and increased negative emotion. Decreases in sadness are particularly related to high promotion focus and low prevention focus regardless of goal outcome. Similarly, increases in daily happiness are particularly related to high promotion focus and low prevention focus. Moreover, decreases in daily calm are particularly related to low promotion focus and decreases in daily anxiety are related to low prevention focus. These results run counter to regulatory focus theory predictions that calm and anxiety are results of different prevention success outcomes.

There are also differences in emotional experience relating to interactions between success and focus. Interestingly, the effects of regulatory success on happiness only occurred when someone was low in promotion focus or high in prevention focus. It was only under these conditions that regulatory success interacted with focus to influence daily emotion. Specifically, higher regulatory success mitigated the negative associations of low promotion focus or high prevention focus on daily happiness and low regulatory success conferred less daily happiness. However, the effects of prevention success on daily
sadness only occurred under high levels of prevention focus, where more prevention success mitigated the associations of prevention focus with more daily sadness. Daily anxiety was only affected by regulatory success under high prevention focus, where high prevention success attenuated daily anxiety. Thus, daily emotion is labile to regulatory success, but not independently of regulatory focus. When someone has a high regulatory successful day they experience more positive emotion and less negative emotion and this effect is moderated when promotion focus is low and prevention focus is high. One exception to this general model is daily calm, where success affected daily happiness only under high promotion focus. Overall, high promotion focus and low prevention focus seem to confer resiliency on daily emotion where affect is more stable in the face of varying goal success.

3.1.5 Predicting Emotion from Regulatory Crossover Interactions

The prior analyses showed that the degree of someone’s daily regulatory focus influences the effects of their daily goal outcomes in predicting different daily emotional experiences. However, it could be the case that focus and success interact across regulatory frames. For example, prevention focus may interact with promotion focus or promotion success may interact with prevention focus, thus illustrating that these are not orthogonal motivational orientation systems. The next set of analyses examined this possibility. The prior results showed that daily promotion focus is associated with increased daily positive emotion and decreased daily negative emotion, and that prevention focus is associated with the converse daily emotion patterns. Given these results, I predicted that high promotion focus may mitigate the negative associations of prevention focus with daily emotion. Moreover, I predicted that high daily prevention focus may exacerbate its association with increased negative emotion and decreased positive emotion, especially under low daily promotion focus. All regulatory variables, PromotionSuccess, PreventionSuccess, PromotionFocus and PreventionFocus were group-mean centered and a random intercept was modeled for each participant:

\[
\text{Emotion} = \beta_0 + (\beta_1 \text{PromotionFocus} \times \beta_2 \text{PreventionFocus} \times \beta_3 \text{PromotionSuccess} \times \beta_4 \text{PreventionSuccess})
\]
For the sake of simplicity, only main effect results that differ from the previous two sections (i.e., 3.1.3 and 3.1.4) and new 2-way interactions will be discussed. Please see Table 8 for model results. Most of the main effects from the previous two sections were replicated with a few exceptions. Specifically, daily promotion success no longer predicted daily calm, $t = 1.54$, and daily prevention success no longer predicted daily sadness, $t = -1.60$, or daily anxiety, $t = -1.23$. In these models, only the positive emotions were significantly related to regulatory success as predicted by theory. Although just as in the previous section, prevention success predicted more daily happiness, $t = 3.33$, ES $r = .08$, than promotion success, $t = 2.74$, ES $r = .07$.

Some of the prior interactions were no longer significant. The Promotion Focus X Promotion Success interaction was no longer significant in predicting daily sadness or happiness, $t < 1.61$. Similarly, the Prevention Focus X Prevention Success interaction between was no longer significant in predicting daily anxiety or daily calm, $ts < 1.40$. However, the interaction between prevention focus and success remained significant in predicting daily sadness and happiness, $t > |3.25|$. No crossover interactions between promotion focus and success and prevention focus and success were significant in predicting daily sadness, $ts < |1.54|$, (see Figure 13) or for daily calm, $ts < 1.40$, (see Figure 14).
Figure 13. Simple slopes at 1 SD above and below the mean for the crossover interactions between daily promotion focus and success and prevention focus and success in predicting daily sadness. None of the interactions are significant. All of the main effects were significant in predicting daily sadness except for promotion success.
Figure 14. Simple slopes at 1 SD above and below the mean for the crossover interactions between daily promotion focus and success and prevention focus and success in predicting daily calm. None of the interactions are significant. All of the main effects except for promotion success were significant in predicting daily calm.

However, there was a significant Promotion Focus X Prevention Focus interaction predicting daily happiness, $b = -.003$, $SE = .001$, $t(1746) = -2.65$, $p < .01$ (see Figure 15, top left panel). Prevention focus predicted daily happiness at both high, $t(1749) = -6.77$, $p < .01$, and low levels of promotion focus, $t(1742) = -3.96$, $p < .01$. Happiness was highest when promotion focus was high and prevention focus was low. Promotion focus also predicted daily happiness at both high, $t(1733) = 4.45$, $p < .01$, and low levels of prevention focus, $t(1749) = 7.13$, $p < .01$. Happiness was also lowest when prevention
focus was high and promotion focus low. This interaction shows the opposing effects that promotion and prevention focus exert on daily happiness. Prevention focus attenuates daily happiness especially at high levels, but high levels of promotion focus can mitigate the decremental effects prevention focus has on happiness. Moreover, happiness was higher when prevention focus was low under both high and low levels of promotion focus.

Figure 15. Simple slopes at 1 SD above and below the mean for the crossover interactions between daily promotion focus and success and prevention focus and success in predicting daily happiness. Only the interaction between promotion focus and prevention focus is significant (top left panel). All main effects are significant in the other panels.
Figure 16. Simple slopes at 1 SD above and below the mean for the crossover interactions between daily promotion focus and success and prevention focus and success in predicting daily anxiety. Only the interaction between promotion focus and prevention focus is significant. (top left panel). Only the main effects of promotion and prevention focus are significant in the other panels.

Additionally, the interaction between promotion and prevention focus was significant in predicting daily anxiety, $b = .002$, $SE = .0001$, $t(1748) = 2.08$, $p = .04$ (see Figure 16, top left panel). If someone was high in prevention focus, then promotion focus did not affect their daily anxiety, $t(1726) = -.38$, $p = .71$. However, if someone was low in prevention focus then their daily level of promotion focus predicted daily anxiety, $t(1748) = -2.84$, $p < .01$. Specifically, someone who was low in prevention focus experienced less anxiety if they were also high in promotion focus compared to being low in promotion focus. This
suggests that promotion focus at high levels can mitigate the negative associations of prevention focus but only if prevention focus is not very high. Moreover, daily prevention focus predicted daily anxiety on both high, \( t(1726) = 8.89, p < .01 \), and low promotion focused days, \( t(1726) = 7.37, p < .01 \). Thus, when someone is thinking a lot about their hopes, dreams and aspirations as well as future potential rewards they experience lower anxiety if they are also thinking less about their duties, obligations, responsibilities as well as future possible losses and risks.

These analyses show that the emotions predicted by regulatory focus theory were mostly supported as relating to differential regulatory success outcomes. Specifically, high promotion success was related to increases in daily happiness, and low promotion success was related to more daily sadness. However, this relationship of low promotion success with sadness went away when allowing for interactions within and across regulatory focus and success. This showed that promotion focus and its interactions with promotion success were important in predicting daily sadness. High and low prevention success outcomes were related to daily calm and anxiety respectively. The only exception to this was observed when interactions were allowed between and within focus and success, the relationship of low prevention success with anxiety disappeared. Instead, the influence of prevention focus predicted the most anxiety. In fact, the relationship between high prevention focus and anxiety is so strong that promotion focus does not affect daily anxiety levels. However, under high prevention focus, daily happiness increases with high promotion focus.

Moreover, the results also show that regulatory focus was most consistently related to emotional experience with particular patterns for each with respect to positive and negative emotions. These interactions showed that being highly motivated (e.g., high promotion or prevention focus) but low in success predicted less positive and more negative emotion, whereas the converse was seen when regulatory focus was high and success was as well. In other words, you are most emotionally affected by goal outcomes you care about the most, namely the goals you are highly focused on. These findings map onto the research showing that goal strength or accessibility augments the emotional experience of goal outcome as predicted by regulatory focus theory (Higgins, Shah, &
Friedman, 1997). Specifically, the stronger your promotion focus goals are the more happiness and sadness you feel during goal success and failure, respectively, and the stronger your prevention focus goals the more calm and anxiety you experience for success and failure, respectively. This pattern of results can also be seen as a corollary of regulatory fit where goal value and emotional outcome is boosted when someone’s motivational framework matches the task they must complete (Higgins, 2000; Leone, Perugini, & Bagozzi, 2005). For example, during a proofreading task a promotion focused person would experience less emotion and value the goal less than a prevention focused person because vigilant, narrowed attention, and scanning for errors does not “fit” with a promotion focused mindset, whereas it fits quite well with a prevention focused mindset. Although promotion and prevention focus mapped on differentially to positive and negative emotions, daily regulatory success mattered in nuanced ways in predicting daily emotion.

This relationship between the different foci and valence was also illustrated in the interactions between focus and success. These interactions showed that regulatory focus not only influences the effects of regulatory success on emotion, but it also interacts within and across regulatory frames. This effect was illustrated with the opposing effects promotion and prevention focus had on daily happiness. Thus, these results do not support the notion that regulatory focus reflects independent motivational systems. Promotion and prevention focus interplay in varying ways to titrate goal pursuit and outcome. For example, when someone had a highly promotion focused day and was also low in prevention focus they experienced the least daily anxiety suggesting that such a state represents an eager exploration orientation with the attendant low anxiety necessary for unmitigated goal pursuit. One major drawback here is that a direct assessment of temporal order cannot done and thus limits causal inferences. Although the results do clearly show that regulatory focus and success at the day level are important factors in predicting daily emotion.

However, it is unclear if these effects of regulatory focus and success on emotion reflect overall trait-levels or if individual differences in a person’s regulatory baseline (i.e., daily regulatory fluctuations) are impacting emotional experience. For example, it could be that
a minor promotion success could incur more happiness if that person is not generally a promotion successful person, whereas a similarly minor success would be experienced as a relative failure for someone who is accustomed to more significant promotion successes.

### 3.1.6 Decomposition of Regulatory Effects

The next set of analyses decomposed the prior significant interactions to understand relationships between trait regulatory focus and daily individual baseline fluctuations of regulatory variables in predicting emotional experience. I computed new variables to assess the influences of trait and daily fluctuations of regulatory focus and success on daily emotion. To examine this, I created “trait” regulatory variables that reflected each participants’ monthly average of daily regulatory focus and success. I also created each participants’ daily fluctuation from their own monthly mean for daily regulatory focus and success. For these analyses, the day-level fluctuation variables reflect someone being more or less promotion focused than they usually are for that day compared to their monthly mean. Recall that all prior regulatory variables reflected a “total” daily composite that contained both trait and fluctuation components. These analyses are decomposing these total regulatory variables into their component parts. Thus, all variables containing “Trait” reflects participants’ monthly average for those variables, whereas all variables containing “Flucs” reflect daily fluctuations of those variables from participants’ baselines (i.e., centered around each participants’ own monthly mean). A random intercept was modeled for each participant. As such, these models examined how trait-level regulatory focus and success and regulatory fluctuations around each participants’ mean predicted variation in their emotional experience:

\[
\text{Daily Emotion} = \beta_0 + (\beta_1 \text{Trait\_PromotionSuccess} \times \beta_2 \text{Trait\_PromotionFocus}) + (\beta_3 \text{Trait\_PreventionSuccess} \times \beta_4 \text{Trait\_PreventionFocus}) + (\beta_5 \text{PromotionSuccess\_Flucs} \times \beta_6 \text{PromotionFocus\_Flucs}) + (\beta_7 \text{PreventionSuccess\_Flucs} \times \beta_8 \text{PreventionFocus\_Flucs})
\]

To test these predictions, I ran four separate multilevel models predicting the daily emotions (i.e., sadness, happiness, happiness, calm) from each participants’ trait regulatory focus and success and fluctuations from their own regulatory focus and success baselines. This approach allows for delineation between the influence of dispositional...
regulatory focus and success and daily increases or decreases in regulatory focus and success from regulatory baselines on emotional experience. The benefit of assessing each participants’ regulatory focus and success fluctuations is that it allows for an assessment that is purified of individual differences due to each participant being compared to their own average tendency in regulatory focus and success. For these analyses, regulatory variable fluctuations that represent an increase from one’s regulatory baseline will be called “higher” and a decrease from one’s baseline will be called “lower”. Thus, ‘lower promotion focus’ will represent someone being less promotion focused than they usually are based on their monthly average for promotion focus.

Recall Figure 1, which shows David and Wallace’s promotion successes over 5 days. The day of interest is circled for both David and Wallace. David has an objectively lower promotion successful day than Wallace, but David has a more promotion successful day compared to his own promotion success baseline for those 5 days. The question is whether David will experience less happiness on that day because he has less “absolute” promotion success than Wallace or if he will experience more happiness because he has more than usual promotion success compared to Wallace (i.e., horizontal dotted lines). Another possibility is that if Wallace experiences more daily happiness than David it may be due to him having an overall higher trait level (i.e., vertical dashed lines) of promotion success than David and not because of an “absolute” level of more promotion success on that day.
Figure 1. Promotion success levels, ranging from 0-100, for David and Wallace on 5 different days. The dashed vertical lines represent David (i.e., top dashed vertical line) and Wallace’s (i.e., bottom dashed vertical line) baseline promotion success for that week (i.e., the average). Each solid vertical line represents self-reported levels of promotion success on that specific day. The circled lines represent days where David and Wallace rated their promotion success that day as being 80 and 90, respectively. The dotted horizontal grey line shows the baseline deviation of David’s day rated as 80. The dotted horizontal black line shows the baseline deviation of Wallace’s day rated as 90.

Therefore, I predict trait regulatory levels should interact with regulatory focus and success fluctuations to augment or attenuate emotional experience. For example, if you are generally a trait prevention focused person and you’re having a particularly prevention successful day, you should experience higher levels of calm than someone who is not dispositionally prevention focused or having a particularly successful day. However, it could be the case that trait levels of regulatory focus and success are less important than the fluctuations of regulatory focus and success. These models will address these possibilities.

3.1.6.1 Main Effects

As predicted from regulatory focus theory, higher promotion success than usual predicted more daily happiness, $b = .06$, $SE = .02$, $t(1700) = 3.16$, $p = .01$, ES $r = .08$. However, neither trait promotion success nor being more promotion successful than usual predicted daily sadness, ts <1.80 (see Figure 17). Although, higher than usual prevention success predicted less daily anxiety, $b = -.04$, $SE = .01$, $t(1700) = -2.89$, $p < .01$, ES $r = .07$, and trait prevention success predicted more daily calm, $b = .28$, $SE = .12$, $t(55) = 2.30$, $p = .02$, ES $r = .23$. Please see Table 9 for model results. Interestingly, none of the trait regulatory variables predicted daily happiness (see Figure 18, left panels). Only daily fluctuations in regulatory focus and success (see Figure 19, right panels) predicting daily happiness suggesting that daily happiness is only influenced by local environmental factors.
Figure 17. Main effects for trait (i.e., left panels) and daily fluctuations (i.e., right panels) in regulatory focus and success predicting daily sadness.
Figure 18. Main effects for trait (i.e., left panels) and daily fluctuations (i.e., right panels) in regulatory focus and success predicting daily happiness.
In line with previous results, regulatory focus fluctuations predicted daily emotional experience as well. On days when someone was higher in promotion focus than usual they also experienced less daily sadness, $b = -.08, SE = .02, t(1700) = -3.57, p < .01, ES r = .09$, less daily anxiety, $b = -.08, SE = .03, t(1698) = -3.17, p < .01, ES r = .08$, more daily happiness, $b = .22, SE = .03, t(1700) = 8.29, p < .01, ES r = .20$, and they experienced more daily calm, $b = .12, SE = .03, t(1700) = 4.51, p < .01, ES r = .11$. On the other hand, on days when someone was higher than usual in prevention focus they experienced more daily sadness, $b = .07, SE = .01, t(1702) = 4.58, p < .01, ES r = .11$, more daily anxiety, $b = .26, SE = .02, t(1700) = 13.86, p < .01, ES r = .32$, less daily happiness, $b = -.14, SE = .02, t(1702) = -7.12, p < .01, ES r = .17$, and less daily calm, $b = -.12, SE = .02, t(1702) = -5.93, p < .01, ES r = .14$. More trait prevention focus also predicted more daily sadness, $b = .23, SE = .08, t(55) = 2.84, p < .01, ES r = .26$ and anxiety, $b = .40, SE = .01, t(54) = 3.66, p < .01, ES r = .45$. See Figures 19 and 20 for main effect of regulatory traits and fluctuations predicting daily anxiety and calm, respectively.
Figure 19. Main effects for trait (i.e., left panels) and daily fluctuations (i.e., right panels) in regulatory focus and success predicting daily anxiety.
Figure 20. Main effects for trait (i.e., 4 left panels) and daily fluctuations (i.e., 4 right panels) in regulatory focus and success predicting daily calm.
Thus, regulatory focus fluctuations related to daily emotional experience in different ways than regulatory success fluctuations as delineated by valence. Higher than usual promotion and prevention success related to more positive emotions (i.e., calm and happy), whereas higher than usual promotion focus related to more positive and less negative daily emotions. Prevention focus showed opposite patterns on emotion where higher than usual prevention focus predicted more negative and less positive daily emotion. Moreover, only trait prevention variables predicted daily emotion. Trait prevention success predicted less sadness and more calm and trait prevention focus predicted more sadness and anxiety. Overall, being more regulatory successful or focused than usual seems to play more diverse roles in daily emotion than trait levels of regulatory focus.

3.1.6.2 Decomposition Interactions

Only the interaction between prevention success fluctuations (i.e., lower or higher success than usual) and prevention focus fluctuations (i.e., lower or higher focus than usual) was significant in predicting daily sadness, $b = -.002$, $SE = .006$, $t(1723) = -4.13$, $p < .01$, ES $r = .11$ (see Figure 21, bottom right panel). Simple slopes analyses showed that being higher than usual in prevention focus, but lower than usual in prevention success predicts the most daily sadness, $t(1706) = 6.54$, $p < .01$. Importantly, higher than usual prevention success mitigated the negative effects associated with prevention focus, $t(1713) = 1.12$, $p = .26$. Moreover, if someone is lower than usual in prevention focus then their level of prevention success does not influence daily sadness, $t(1709) = .38$, $p = .70$. It is only when someone was higher than usual in prevention focus that prevention success fluctuations predicted daily sadness with lower success than usual predicting the most sadness, $t(1711) = -4.40$, $p < .01$. 
Figure 21. Decomposition components of the interactions between promotion focus and success fluctuations and prevention focus and success fluctuations predicting daily sadness. Only the bottom right panel is significant.
Figure 22. Decomposition components of the interactions between promotion focus and success fluctuations and prevention focus and success fluctuations predicting daily happiness. Only the bottom right panel is significant.

In predicting happiness, the interaction between prevention success and focus fluctuations was also significant, $b = .002, SE = .001, t(1717) = 3.09, p < .01, ES r = .17$ (see Figure 22, bottom right panel). These results suggest that prevention success fluctuations only predict daily happiness when someone is more prevention focused than usual, where higher than usual prevention focus and lower than usual success predict the least happiness, $t(1708) = 4.37, p < .01$. Daily happiness was unrelated to prevention success fluctuations when someone was lower than usual in prevention focus, $t(1707) = .92, p = .36$. As you can see in the bottom right panel of Figure 22, daily happiness was highest when someone was lower than usual prevention focus. Moreover, prevention focus fluctuations predicted daily
happiness when someone was higher, \( t(1710) = -3.63, p < .01 \) or lower in their prevention success than usual \( t(1704) = -8.04, p < .01 \). This mirrors the results from the previous models where prevention focus predicts less positive emotion. Thinking less than usual about your duties, goals, obligations and future potential losses confers a positive resiliency that is unaffected by low or high goal success. It is only when someone is more prevention focused than usual that prevention success affects daily happiness. Under higher prevention focus than usual, lower than usual prevention success confers the least happiness. Thus, when you are focusing on your achieving duties and responsibilities and avoiding failures and risks more than usual and you fail at succeeding in these goals you experience the least happiness. Even though more prevention success than usual boosts someone’s daily happiness, they are still not as happy as someone who is less prevention focused than usual regardless of success.

Lastly, there was an interaction between promotion focus and success fluctuations in predicting daily anxiety, \( b = .002, SE = .001, t(1724) = 2.29, p = .02 \), ES \( r = .06 \) (see Figure 23, bottom left panel). Promotion success fluctuations only predicted daily anxiety when someone was also lower than usual in promotion focus, \( t(1705) = -2.47, p = .01 \). Anxiety was highest when someone was lower than usual in both promotion success and focus. If someone was more promotion focused than usual, then being lower or higher in promotion success than usual did not predict daily anxiety, \( t(1704) = -.84, p = .40 \). Similarly, if someone was higher than usual in promotion success then their level of promotion focus does not predict daily anxiety, \( t(1704) = -1.57, p = .12 \). However, if someone was lower in promotion success than usual then promotion focus fluctuations predicted daily anxiety, \( t(1706) = -3.86, p < .01 \). In other words, thinking less than usual about your hopes, dreams and aspirations and future rewards predicted more daily anxiety than thinking about those things more than usual but only if someone was also less successful than usual in their hopes, dreams and aspirations and attaining rewards. Overall, being more promotion focused or successful than usual buffers against increases in daily anxiety related to goal pursuit and outcome. None of the decompositions for daily calm were significant, \( ts > 1.83 \) (see Figure 24).
Figure 23. Decomposition components of the interactions between promotion focus and success fluctuations and prevention focus and success fluctuations predicting daily anxiety. Only the bottom left panel is significant.
In sum, daily sadness seems to be mostly related to being more prevention focused than usual and experiencing less prevention success than usual. It makes sense that someone who is trying to avoid failure more than usual and experiences low success would experience more daily sadness. If someone is thinking about risks and failure less than usual then they are not affected by high or low success; daily sadness is not affected by goal outcome. Also, being more prevention successful than usual seems to impart some stability on someone’s level of daily sadness. Daily anxiety and promotion focus and
success show the opposite patterns relating to sadness and its relationship with prevention variables. Daily anxiety is highest when someone is lower than they usually are in promotion focus and success. High promotion focus also imparts stability against increases in daily anxiety even under lower than usual promotion success. These results highlight how much regulatory focus itself particularly relates to emotional experience. Positive emotions are related mostly to high promotion focus and low prevention focus, whereas negative emotions are related mostly to low promotion focus and high prevention focus. It is also under lower than usual promotion focus and higher than usual prevention focus that the moderating role of regulatory success come into play, with more success buffering against increases or decreasing in negative or positive emotion. Overall goal success, regardless of foci, related to more positive daily emotions, which is in line with past research showing that goal success is associated with positive emotion (Higgins, 1997; Higgins, Shah & Friedman, 1997). These results showed that daily fluctuations of regulatory states relate to emotional experience differently than empirical assessments in laboratory settings and should be considered in more depth in future research.

3.2 Discussion

3.2.1 Daily Regulatory Focus Main Effects

Naturally occurring regulatory focus and success in daily life vary from person to person and from day-to-day. The present study tested the hypotheses of regulatory focus theory in daily life as well as disentangled the effects of regulatory focus from regulatory success on emotion. One of the great strengths of this approach is that it allows for differentiated assessments of both regulatory focus and success relating to daily emotion. Regulatory focus theory predicts differences in emotional experience related to success and failure under each focus (Roney, Higgins, and Shah, 1995; Higgins, Shah & Friedman, 1997; Higgins, 1997; Idson, Lieberman, & Higgins, 2000). Recall that promotion focus involves thinking about your hopes, dreams, and aspirations we well as future rewards and opportunities. Success and failure concern gains and non-gains and non-gains. Under a promotion focus orientation, goal success (i.e., gain) would be accompanied by feelings of happiness and goal failure (i.e., non-gain) would involve feelings of sadness. Conversely,
prevention focus involves thinking about one’s duties, obligations and responsibilities and concerns potential losses and non-losses. Under a prevention focus orientation, goal success (i.e., non-loss) would involve feelings of calm and failure (i.e., loss) would involve feelings of anxiety. However, prior research has not assessed how regulatory focus itself may relate to emotional experience. The present analyses, therefore, assessed the influences of regulatory focus and success on emotional experience in daily life.

In the present analyses, the regulatory focus theory predictions of emotional experience were supported in part. When emotion was predicted from only regulatory success variables then promotion success predicted more happiness and less sadness as predicted by theory. However, when regulatory focus was controlled for, then promotion success was only consistently related to more daily happiness, but not daily sadness. Indeed, some models showed that daily happiness was more related to being successful in one’s duties, obligations, and responsibilities to a greater degree than success in one’s hopes, dreams, and aspirations. Moreover, promotion focus in particular, rather than regulatory success, was the biggest predictor of someone’s level of daily happiness, not regulatory success. Promotion focus was also related to more daily calm and less daily sadness and anxiety. This shows that merely thinking about your hopes, dreams, and aspirations as well as future potential rewards is associated with more positive emotion and less negative emotion. This pattern makes sense considering that promotion focus is an orientation that concerns nurturance needs where positive emotion impels more eager approach to capitalize on opportunities and potential rewards (Higgins, 1997). Overall, promotion success was related to more daily happiness and calm, but unrelated to daily anxiety and not consistently related to daily sadness. This suggests that being successful in one’s hopes, dreams, and aspirations is mostly related to increased positive daily emotion and unrelated to negative daily emotion.

Regulatory focus theory predicts that prevention success and failure should relate to calm and anxiety, respectively. In the present results, prevention success was marginally related to more daily anxiety and calm. However, when controlling for prevention focus, prevention success was consistently related to more daily calm and less daily anxiety. Although, prevention focus was a bigger contributor to more daily anxiety and less daily
calm than prevention success. Moreover, prevention focus also predicted less daily happiness and more daily sadness. This shows that merely thinking about one’s duties, obligations, and responsibilities is associated with more negative and less positive daily emotion. Whereas, being successful in one’s duties, obligations, and responsibilities is related to more positive daily emotion.

Promotion focus is related to more positive emotion and less negative emotions, thus, showing that thinking about promotion goals pursuit is more enjoyable. Conversely, thinking about prevention goals is mostly aversive. However, the positive emotions related to prevention success are greater in magnitude than the positive emotions associated with promotion success. Therefore, although thinking about one’s duties, obligations, and responsibilities predicts more negative daily emotion, but being successful in those prevention goals may provide an amelioration of those negative emotions. Overall, these results show that thinking about promotion goals is more enjoyable, whereas prevention success is more enjoyable.

Prevention goals are related to ought self-guides, and thus, represent minimal goals that someone must accomplish, whereas promotion goals are related to ideal self-guides and represent maximal goals that someone wants to strive for and attain, but are not necessities (Brendl & Higgins, 1996; Crowe & Higgins, 1997). Therefore, it makes sense that prevention pursuit would be more aversive than promotion pursuit, but that prevention success is associated with a greater degree of positive emotion than promotion success. Moreover, promotion focus involves a concern of the presence and absence of rewards, whereas prevention focus concerns the presence and absence of loss. The anticipation of reward under promotion focus may overpower the expectation of non-reward and the possibility of future loss may dominate prevention orientation, thus allowing for these different patterns in valence under each focus.

Interestingly, regulatory focus has been shown to be independent of emotional valence (Crowe & Higgins, 1997; Shah et al., 1998). Indeed, one of the core assumptions of regulatory focus theory is that the eager approach and avoidant vigilance strategies of goal pursuit can be adopted under either focus. Crucially, these strategies are presumed to be
independent of valence, thus imparting flexibility in strategy adoption and implementation. However, the present results refute this claim of valence independence.

3.2.2 Daily regulatory focus interactions

Importantly, regulatory focus moderated success in predicting daily emotion. Specifically, if someone had a day where they were thinking a lot about their duties, obligations, and future losses then also having less success in those concerns predicted the most daily sadness, but only under high prevention focus. Having a less prevention focused-day imparted a resiliency against the buffeting effects of high or low goal success on daily sadness as well as daily happiness. It was only on days when someone was highly prevention focused that goal success affected daily emotion. The only exception being calm, which was not related to prevention focus and success interactions. Interestingly, on days when someone was thinking a lot about their hopes, dreams, aspirations and future rewards their level of goal success was not related to their daily happiness, suggesting that high promotion focus imparts a resiliency against goal outcome. Indeed, it was only under low promotion success that low goal success predicted less daily happiness. However, the opposite patterns were found for daily calm, where it was only under high promotion focus that goal success mattered for daily calm. This shows that high promotion focus can buffer against goal outcomes only under high arousal positive emotion, whereas low prevention focus imparts resiliency against goal outcomes for high and low arousal emotions (i.e., happiness, sadness, and anxiety).

Crossover interactions showed that happiness is indeed a function of promotion and prevention focus interactions, with happiness being highest when someone was high in promotion focus and low in prevention focus. Thus, sadness relates to dwelling on your duties, responsibilities and avoiding failure and not thinking about your hopes, dreams and possible rewards. Conversely, happiness relates to thinking mostly about your hopes, dreams and future rewards and giving little thought to your obligations and potential risks and failures. Moreover, daily calm was highest as a function of high promotion focus and promotion success, thus showing that calm is related to motivational accord with goal outcome of one’s hopes, dreams, and aspirations. Daily anxiety was also related to
motivation and goal outcome where anxiety was highest when someone was highly prevention focused and experienced low prevention success. Crossover interactions showed that high anxiety involves both high prevention focus and low promotion focus. In other words, thinking about your duties, obligations and potential failings contributes to increased daily negative emotion and decreased positive emotion.

### 3.2.3 Traits and Daily Regulatory Fluctuations

These patterns of focus and positive and negative emotion are also preserved at the level of daily fluctuations. If someone was more promotion focused than they usually are then they experienced more positive daily emotion and less negative daily emotion. The opposite patterns were shown for prevention focus, where thinking more than usual about one’s duties, obligations, and responsibilities was related to more daily negative emotion and less positive emotion.

Interestingly, the decomposition of total regulatory focus and success showed that trait levels of regulatory focus were less consistently related to daily emotional experience as compared to daily regulatory fluctuations. Only trait prevention focus and success were related to daily emotion. If you’re a generally prevention successful person (e.g., achieving your duties and obligations), then you experience less daily sadness and more daily calm. However, if you’re a generally more prevention-focused person then you experience more daily sadness and anxiety. There were differences in emotional experience in being a generally regulatory focused or successful person and having a particularly higher or lower regulatory focused or successful day than usual. Someone being more or less regulatory focused or successful on a given day was more relevant for predicting more diverse daily emotions. However, these associations were not strictly related to regulatory predictions. Only being more prevention successful than usual predicted more daily calm as predicted and being more prevention and promotion successful equally predicted daily happiness.

The decomposition interactions showed that happiness was highest when someone was lower than usual in prevention focus regardless of goal outcome. However, if someone
was higher than usual in prevention focus then goal outcome affected their daily happiness with less prevention success than usual being associated with the lowest levels of daily happiness. Daily sadness was also highest when someone was more prevention focused and had less prevention success than usual. If someone was lower than usual in prevention focus then their goal outcome did not affect their daily sadness, the same pattern was present for daily happiness and lower than usual prevention focus. Thus, thinking less than you usually do about your duties, obligations and potential failure affords resiliency against shifts in daily happiness and sadness related to goal outcomes. Daily anxiety was only affected by goal outcomes when someone was less promotion focused than usual with anxiety being highest under lower than usual promotion focus and success. This suggests that thinking more than usual about one’s hopes, dreams, and aspirations confers a resiliency against anxiety increases or decreases related to goal outcomes. This is not to suggest that a resiliency against goal outcomes is always adaptive. It very well could prevent emotional changes allowing for alterations in strategy implementation and goal pursuit flexibility.

Across all these fluctuation interactions, goal outcome only affected daily emotion when someone was low in promotion focus (i.e., anxiety) or high in prevention focus (sadness and happiness). This suggests that strong considerations about your duties, obligations, and potential failures with few considerations about your hopes, dreams and future rewards makes you vulnerable to decrements in positive emotion and increases in negative emotion relating to negative goal outcomes affecting your daily affect. Overall, daily anxiety was mostly related to high prevention focus. This association makes sense given that anxiety is a future-thinking emotion, it concerns potentially bad events that have not happened yet (Kirkland & Cunningham, 2012) just as prevention focus is concerned with potential future losses and preventing them from happening. Similarly, daily sadness was highest when someone is highly prevention focused and failed to prevent those losses they are most trying to avoid. Moreover, prevention focus is related to sensitivity to negative emotion (Cunningham, Raye, & Johnson, 2005; Gorman et al, 2012; Idson, Lieberman, & Higgins, 2000).
It is unclear, however, if the association of negative emotion and being more prevention focused than usual is an automatic consequence of specific perceptual and cognitive processes that may be engaged under prevention focus or if being more prevention focused than usual is a consequence of goal impediments that alone would confer negative affect. It could be the case that people become more prevention focused during tasks that are more difficult and have a lower probability of attainment. Likewise, promotion focus may be adopted more than usual during goals that are more likely to be attained or during an increase in goal progress. There is evidence that a promotion orientation results in quicker and accurate task completion if the task is easier, whereas for harder tasks a prevention orientation will result in longer times to completion but with more accuracy (Foerster, Higgins, Taylor-Bianco, 2003).

Another possibility is that the positive emotions related to promotion focus and the negative emotions related to prevention focus both serve to boost continued motivation under those foci. Past research has shown that actual or expected success (i.e., gain) serve to increase eagerness motivation, whereas expecting or experiencing failure (i.e., non-gain) actually decreases eagerness motivation of promotion focus (Idson et al., 2000). Similarly, actual or expected failure (i.e., loss) serve to increase vigilance motivation, whereas expecting or experiencing success (i.e., non-loss) actually decreases vigilance motivation. These results are important in showing how negative emotion under a prevention focus is adaptive for goal pursuit, whereas positive emotion can hinder progress. It is only under a promotion focus where positive emotions reinforce motivation and negative emotions dampen goal pursuit. Thus, the adaptive utility of positive and negative emotions depends upon one’s regulatory focus. Support for this can be further seen in regulatory interactions where daily sadness was highest when someone was having a low prevention successful day but was high in prevention focus. It could be that sadness serves as a motivating factor to continued prevention focus. Likewise, daily happiness where it was lowest when someone was high in prevention focus but low in success. It could be that happiness is low because it has demotivating effects on prevention focus, which is needed to sustain motivation especially under low prevention successful days. More research is needed to elucidate the factors relating to the relationship between regulatory focus and emotional experience.
In sum, the predictions of regulatory focus theory were supported with mixed results in this set of analyses. Regulatory predictions for emotional experience were more consistently shown in simpler models using only regulatory success to predict emotional experience. However, regulatory focus was consistently related to emotional valence. Promotion focus is related to more overall positive emotion and less overall negative emotion, and prevention focus is related to less overall positive emotion and more overall negative emotion. These patterns were also illustrated in interactions between success and focus where high promotion and low prevention focus seem to confer a resiliency effect (e.g., sustained positive emotion) even in the face of low goal success. Prevention focus confers a deleterious effect on positive emotion and exacerbates negative emotion on its own, but also when low goal success is present. The effects of regulatory success and focus on emotional experience are more pronounced when assessing someone’s regulatory state fluctuations (i.e., being more or less focused or successful than usual).

The overall pattern suggests that general regulatory success and promotion focus relate to positive affect, whereas prevention focus seems to be related to overall negative affect. The interactive relationship between regulatory focus and success fluctuations also relates to emotional experience. Therefore, it is important to assess a person’s own regulatory baseline for focus and success to more fully understand how these different motivational orientations specifically relate to daily emotional experience. Regulatory focus theory predicts that promotion and prevention focus are independent of valence, and the results here do not support this claim, particularly when assessing regulatory fluctuations from one’s daily average. These findings can serve as a way to re-formulate our understanding of the role of promotion and prevention focus in emotional experience under a motivational framework of goal pursuit in daily life.
Chapter 4
Yesterday’s Effects Predicting Regulatory Focus Today

4 Introduction

This chapter seeks to examine how regulatory focus extends through time. One way to think about someone’s daily level of regulatory focus or success is to decompose it into trait and environmental influences (Higgins, 1997). On a given day, your level of regulatory focus is a function of your global level regulatory focus (i.e., trait promotion or prevention focus) and your local levels (e.g., yesterday’s promotion or prevention focus) of regulatory focus. For example, if your birthday is in two days then your level of promotion focus today is related to how promotion focused you are in general as well as the fact that yesterday you were also eagerly looking forward to your birthday just as you are today. In other words, regulatory states unfold and persist in time and are related to global and local history (i.e., yesterday’s level of regulatory focus) of regulatory focus. Moreover, since the previous chapter showed that regulatory states vary from day to day and that these fluctuations from one’s baseline matter in predicting daily emotion, it is important to also assess what predicts regulatory focus on a given day. Thus, to understand what predicts today’s regulatory focus levels it is necessary to make an assessment of total levels of regulatory focus the day before as well as decomposing total regulatory focus and success into their respective trait and daily fluctuations.

In these analyses, additional support for promotion and prevention focus being dependent systems can be shown if when controlling for trait promotion focus and daily fluctuations, the influence of trait prevention focus is important for predicting today’s promotion focus. Although trait regulatory variables were important for capturing variance in daily emotion, in the previous chapter, daily fluctuations still mattered in understanding daily emotional experience. Thus, it may be the case that when trying to predict today’s prevention focus, trait prevention focus levels will matter, but the local history of events (e.g., yesterday’s levels of focus and success and their fluctuations from baseline) may also matter in how
much someone is focusing on their duties, responsibilities, obligations and potential losses.

One of the questions these analyses seek to answer is how focusing on some motivations versus others and their outcomes leads to changes in regulatory focus at different levels of analysis (e.g., trait levels, yesterday’s history of focus and success, and the daily fluctuations of yesterday’s history). There are many possible explanations why someone adopts one regulatory focus over the other. One explanation is that the focus you are in today is a function of who you are as a person. Some people are dispositionally poised to think more about their hopes, dreams and future rewards, whereas others are more inclined to be concerned with duties, responsibilities and potential losses in not fulfilling those obligations. So, if yesterday’s regulatory focus is the same as today’s focus, it could be just because you are the same person with the same motivational tendencies (i.e., dispositional factors). Another possibility is that you are in the same prevention focus today as you were yesterday because local history continues through time. If you are worried about failing a test (i.e., prevention focus) that you have to take 3 days from now you are most likely still going to be worried about it today and tomorrow and the next day. Our motivations typically do not reflect discrete instances; they persist over time until a goal outcome is achieved.

Maslow’s hierarchy of needs (1943) stipulates that once someone satisfies their physiological and safety/security needs only then are they able to move on to needs relating to reward and nurturance. This suggests that prevention needs, which concern safety and security, are prioritized over promotion needs, which concern nurturing rewards and new opportunities. Thus, prevention needs reflect minimum goals that a person must satisfy first before promotion motivations can be pursued (Higgins, 2000). So, one reason someone may shift motivational frames is because they have satisfied their minimum goals of safety and security and now want to pursue more personally meaningful and rewarding goals.

Another reason people may shift motivational focus is related to the differing cognitive effort that is required to maintain a promotion or prevention focus. It could be that
focusing on your duties, responsibilities, and future potential losses is more draining and taxing than thinking about your dreams, hopes, and future rewards. There may be more self-control exerted when someone is prevention focused compared to when they are promotion focused. The process model of self-control depletion tries to explain why people seem to capitulate on competing motivations. In other words, why do people fail in their goals in the face of mental fatigue (i.e., depletion) due to increasingly taxing cognitive pursuits (Inzlicht, Schmeichel, & Macrae, 2014). It has been theorized that self-control is a limited resource and that continued exertion in inhibiting pre-potent or competing motivational responses takes its toll on self-control where people will eventually give in to the competing drive (Baumeister et al., 2007). A common example is someone who is dieting and forgoing the indulgence of their favourite foods to lose weight. The two competing goals of losing weight and indulging in rewarding foods creates an opposition that is difficult to sustain in the long-term. Thus, increased self-restraint will eventually lose out over time due to limited resources (Baumeister et al., 2007).

However, the process model of self-control suggests that self-control is not a limited resource, but rather that at the proximate level, fatigue causes motivations to shift from “have-to” goals to “want-to” goals. “Have-to” tasks relate to one’s duties and obligations and “want-to” tasks relate to enjoyable and meaningful activities one wants to do (e.g., eat a piece of chocolate, connect with friends). The idea is engaging in “have-to” tasks over time, especially at the expense of pleasurable tasks, results in abandoning “have-to” tasks in order to pursue “want-to” tasks. The crucial reason for this is not because the finitude of self-control as a resource has been depleted but that the goals have switched in the moment. Exerting sustained cognitive control in tasks is aversive (Botvinick, 2007) and people tend to avoid prolonged engagement in these kinds of tasks (Kool et al., 2010). However, people will continue to exert mental effort if they are given incentives to do so although, over time, the incentives will need to increase according to the length of engagement or else they will pursue “want-to” tasks (Botvinick, 2007). Thus, adaptive functioning requires a balance between labor-intensive pursuits and leisure pursuits.
Promotion and prevention focus are good proxies for “want-to” and “have-to” tasks respectively, particularly in light of the previous chapter’s findings that promotion focus is related to increased positive emotion and decreased negative emotion and prevention focused is related to the inverse. It is important to note that self-control depletion does not reduce overall motivation, it only reduces one’s motivation to engage in effortful and demanding “have-to” tasks, which then leads to an increase in approach motivation and a greater likelihood to engage in “want-to” tasks because rewards become more salient (Schmeichel et al., 2010). Thus, I predict that someone’s level of promotion focus today will be a function of both yesterday’s promotion and prevention focus but that someone’s level of prevention focus today will only be a function of yesterday’s prevention focus.

Lastly, one other reason someone may switch between foci is because of local variations of success influencing a switching of goal strategies. The prior chapter’s analyses showed that regulatory focus interacts with regulatory success at varying levels of analysis. Namely, regulatory focus and success interacted within days as well as at the level of daily fluctuations from monthly averages showing that the proximal fluctuations from one’s baseline impacted emotional experience as did trait-level regulatory variables. However, it is unclear if high or low goal success on one day impact the subsequent day’s regulatory focus. For example, if you had a less successful day yesterday would that result in a regulatory focus switch the next day? All of these possibilities of what predicts daily regulatory focus will be examined at the level of total regulatory focus and success and its decompositions at the trait level and daily fluctuations from individuals’ baselines.

4.1 Results

4.1.1 Predicting Regulatory Focus from Yesterday's States

The first set of analyses sought to understand what predicts someone’s regulatory focus on a given day. To understand what predicts regulatory motivation, I ran two multilevel models to understand how yesterday’s absolute regulatory success and focus at the day level (i.e., group-mean centered) predicted the regulatory focus of the current day using the following model structure:
Regulatory Focus = $\beta_0 + \beta_1 \text{Yesterday\_PromotionFocus} + \beta_2 \text{Yesterday\_PreventionFocus} + \beta_3 \text{Yesterday\_PromotionSuccess} + \beta_4 \text{Yesterday\_PreventionSuccess}$

The results showed that someone’s promotion focus on a given day was a function of the day yesterday’s promotion focus, $b = .29, SE = .03, t(1759) = 10.23, p < .01, ES r = .24$, and yesterday’s prevention focus, $b = .07, SE = .02, t(1742) = 3.24, p < .01, ES r = .08$ (see also Figure 25; Table 10). Interestingly, promotion or prevention success the day before did not relate to the current day’s regulatory focus. Neither yesterday’s promotion nor prevention success predicted the current day’s promotion focus, $ts < |-.55|$. For promotion focus, there was an overall effect of yesterday's regulatory focus predicting promotion focus today.

Figure 25. Main effects of yesterday’s regulatory focus and success fluctuations predicting today’s promotion focus. Only the top two panel effects are significant.
Prevention focus showed a different pattern (see Figure 26). Specifically, the current day’s prevention focus was particularly predicted by yesterday’s prevention focus, $b = .36, SE = .02, t(1759) = 14.33, p < .01, ES r = .32$. Yesterday’s promotion focus was not related to the current day’s prevention focus, $t = .05$. Neither yesterday’s promotion or prevention success was related to the current day’s prevention focus, $ts < 1.76$. These results suggest that there is an overall regulatory focus effect of yesterday for promotion focus on the current day, whereas prevention focus on a current day was particularly related the yesterday’s prevention focus.

Figure 26. Main effects of yesterday’s regulatory focus and success fluctuations predicting today’s prevention focus. Only the top right panel effects are significant.
4.1.2 Predicting Regulatory Focus from Traits and Yesterday’s States

The next set of analyses sought to decompose total regulatory focus and success into its component parts (i.e., trait-level and daily fluctuation levels of yesterday’s regulatory variables) so as to fully assess their role in predicting today’s regulatory focus using the following model structure:

\[
\text{Regulatory Focus} = \beta_0 + \beta_1 \text{Yesterday\_PromotionFocus\_Flucs} + \beta_2 \text{Yesterday\_PreventionFocus\_Flucs} + \beta_3 \text{Yesterday\_PromotionSuccess\_Flucs} + \beta_4 \text{Yesterday\_PreventionSuccess\_Flucs} + \beta_5 \text{Trait\_PromotionFocus} + \beta_6 \text{Trait\_PreventionFocus} + \beta_7 \text{Trait\_PromotionSuccess} + \beta_8 \text{Trait\_PreventionSuccess}
\]

At the trait level, different patterns emerged in predicting today’s level of promotion and prevention focus (see Figure 27). In predicting today’s promotion focus, there were robust effects for someone’s trait promotion focus, \( b = 1.00, SE = .04, t(1756) = 28.62, p < .01, ES r = .56 \). Similarly, in predicting today’s prevention focus, someone’s trait prevention focus showed large effects, \( b = .99, SE = .04, t(1756) = 25.30, p < .01, ES r = .52 \). Interestingly, neither trait promotion nor prevention success predicted daily regulatory focus, \( ts < -.05 \) (see Table 11 for model effects). At the trait level, this shows that promotion or prevention success on a given day is a function of being a promotion or prevention focused person in general.
Figure 27. Left column of four panels predicting today’s promotion focus from trait promotion and prevention focus and success. Right column of four panels predicting today’s prevention focus from trait promotion and prevention focus and success.
Beyond the trait level, there were significant effects for regulatory fluctuations from one’s baseline in predicting today’s regulatory focus (Figure 28). The results showed that someone’s promotion focus today is also a function of yesterday’s promotion focus fluctuations, $b = .26$, $SE = .03$, $t(1756) = 9.03$, $p < .01$, ES $r = .21$ as well as their prevention focus fluctuations yesterday, $b = .07$, $SE = .02$, $t(1756) = 3.44$, $p < .01$, ES $r = .08$. However, neither the yesterday’s promotion nor prevention success fluctuations predicted today’s promotion focus, $ts < |-1.02|$. In predicting today’s prevention focus, only yesterday’s prevention focus fluctuations were significant, $b = .32$, $SE = .02$, $t(1756) = 12.86$, $p < .01$, ES $r = .29$. Neither yesterday’s promotion focus fluctuations nor yesterday’s promotion or prevention success fluctuations predicted today’s prevention focus, $ts < 1.15$.

Thus, these results show that trait levels particularly matter in understanding regulatory focus. Specifically, if you are a generally promotion focused person then you are more likely to be experiencing promotion focus today. Similarly, if you are a generally more prevention focused person then you will most likely be experiencing prevention focus today. However, beyond mere trait influences of regulatory focus, one’s local history matters. This supports my prediction. Specifically, more than usual promotion or prevention focus yesterday predicted more promotion focus today. However, in predicting prevention focus there was an association of only yesterday’s prevention focus. Neither trait nor regulatory success fluctuations impacted today’s regulatory focus. These patterns are interesting and suggest motivational continuity from day to day does not depend on whether goals are achieved, but how they are generally represented. Models allowing for crossover interactions between trait and daily fluctuation of regulatory variables were not theoretically meaningful. Thus, only discussion of main effect models only will follow.
Figure 28. Left column of four panels predicting today’s promotion focus from yesterday’s promotion and prevention focus and success fluctuations. Right column of four panels predicting today’s prevention focus from yesterday’s promotion and prevention focus and success fluctuations.
4.2 Discussion

Regulatory focus comprises two different motivational strategies that aid in goal attainment by self-regulating specific needs and proclivities (Higgins, 1997; 1998). Promotion focus involves sensitivity to reward and concerns one’s hopes, dreams and aspirations which fulfill one’s nurturance needs, whereas prevention focus involves sensitivity to loss and concerns one’s duties, responsibilities, and obligations which fulfill one’s safety and security needs. Regulatory focus manifests as an enduring trait-like tendency but also can be induced during the completion of certain tasks as both foci bring advantages to different tasks. Therefore, one’s regulatory focus will be determined by one’s unique developmental history as well as the current demands of the situation (Crowe & Higgins, 1997; Shah & Higgins, 2001).

One question the present analyses sought to answer is what influences regulatory focus across time. Specifically, how does someone’s total regulatory success and focus on one day affect a subsequent day’s regulatory focus? Moreover, how do total regulatory decompositions into trait and daily fluctuations of regulatory focus and success predict daily regulatory focus? To answer these questions, I assessed the influence of regulatory focus and success the day before as well as someone’s trait regulatory focus and success. Thus, capturing whether more proximal regulatory (e.g., daily fluctuations from baseline) variables or more distal trait-like variables best predicted a given day’s regulatory focus.

The results showed that yesterday’s regulatory success did not influence today’s regulatory focus. However, yesterday’s promotion and prevention focus predicted more promotion focus today, but in predicting today’s prevention focus only yesterday prevention focus was important. When decomposing total regulatory focus and success into its trait and daily fluctuation components there were additional effects. Interestingly, neither trait nor daily fluctuations of regulatory success predicted today’s regulatory focus. However, at the trait level, trait promotion focus particularly predicted more promotion focus on a given day and trait prevention focus particularly predicted prevention focus on a given day. Trait regulatory focus was the biggest predictor of today’s regulatory focus. This suggests that regulatory focus is more influenced by habitual factors relating to
preferred motivational frameworks and not the result of environmental dynamics related to goal progress. However, beyond this regulatory trait influence, local history continued to matter as well.

At the day level, yesterday’s regulatory focus fluctuations predicted today’s regulatory focus with some interesting patterns. Specifically, promotion focus today was related to both yesterday’s promotion and prevention focus, suggesting that promotion focus reflects an overall motivational influence of general goal pursuit. This is contrasted with prevention focus today day, which was particularly related to only prevention focus yesterday.

Moreover, the process model of self-control depletion can explain why higher than usual prevention focus yesterday predicted more promotion focus on the subsequent day. It has been theorized that self-control is a limited resource and that continued exertion in inhibiting pre-potent or competing motivational responses takes its toll on self-control where people will eventually give in to the competing drive. A common example of depletion is someone who is dieting to lose weight and avoids the indulgence of their favourite foods. The two competing goals of losing weight and indulging in rewarding foods creates an opposition that is difficult to sustain in the long-term. Thus, increased self-restraint will eventually lose out over time due to limited resources (Baumeister et al., 2007). However, the process model of self-control suggests that self-control is not a limited resource, but rather that at the proximate level, fatigue causes motivations to shift from “have-to” goals to “want-to” goals. “Have-to” tasks relate to one’s duties and obligations and “want-to” tasks relate to enjoyable and meaningful activities one wants to do (e.g., eat a piece of chocolate, connect with friends). The idea is engaging in “have-to” tasks over time, especially at the expense of pleasurable tasks, results in abandoning “have-to” tasks in order to pursue “want-to” tasks. The crucial reason for this is not because the finitude of self-control as a resource has been depleted but that the goals have switched in the moment. Exerting sustained cognitive control in tasks is aversive (Botvinick, 2007) and people tend to avoid prolonged engagement in these kinds of tasks (Kool et al., 2010). However, people will continue to exert mental effort if they are given incentives to do so although, over time, the incentives will need to increase according to
the length of engagement or else they will pursue “want-to” tasks (Botvinick, 2007). Thus, adaptive functioning requires a balance between labor-intensive pursuits and leisure pursuits.

Promotion and prevention focus are good proxies for “want-to” and “have-to” tasks respectively, particularly in light of the previous chapter’s findings that promotion focus is related to increased positive emotion and decreased negative emotion and prevention focused is related to the inverse. It is important to note that self-control depletion does not reduce overall motivation, it only reduces one’s motivation to engage in effortful and demanding “have-to” tasks, which then leads to an increase in approach motivation and a greater likelihood to engage in “want-to” tasks because rewards become more salient (Schmeichel et al., 2010).

Moreover, dipping into a promotion focus could serve to rejuvenate one’s energy and motivation to continue working on prevention goals later on. In sum, “have-to” tasks (i.e., prevention focus) require more effort and cognitive control resulting in depletion, and are therefore more taxing and inherently unpleasant to sustain without continual incentives (Inzlicht, Schmeichel, & Macrae, 2014). This depletion shifts goal prioritizes by altering motivations via attentional and emotional changes that result in “want-to” tasks becoming more appealing and more likely to be engaged in. However, it is important to note that motivational states can be understood to comprise both different goal representations as well as the corresponding emotional states that fuel adaptive goal pursuit (Tomkins, 1984; Higgins, 1997; Buck, 1999). From a regulatory focus theory perspective, the emotions that nurture and perpetuate promotion and prevention focus are happiness and anxiety respectively as these are the high arousal emotions for these foci. Thus, promotion and prevention focus comprise opposite emotionally invigorating states. A happy, eager state creates the most motivational vigor under promotion focus, whereas a anxious, vigilant state is the most motivationally robust under prevention focus (Higgins, 1997). Therefore, regulatory focus may be influenced by depletion where sustained prevention focus may lead to subsequent promotion focus.
The results support the predictions of self-control depletion under a process model where sustained “have-to” tasks (i.e., prevention focus) over time will lead to a likelihood of adopting “want-to” tasks (i.e., promotion focus). It could be that higher than usual prevention focus is more cognitively tasking due to it involving vigilant attention (Higgins, 1997). Moreover, since prevention focus is strongly related to more negative daily emotion and less positive emotion, a switch to promotion focus could act as an adaptive shift to a more motivationally invigorating and appetitive state because promotion focus is related to more positive daily emotion and less negative daily emotion. It is important to keep in mind that prevention focus is not maladaptive per se, but rather sustained prevention focus may render promotion focus more appealing over time due to prevention focus being more demanding and eventually depleting of cognitive resources. The results support this idea.

It was hypothesized that another reason why someone may switch between foci is because of local variations of success influencing a switching of goal strategies. The prior chapter’s analyses showed that regulatory focus interacts with regulatory success at varying levels of analysis. Namely regulatory focus and success interacted within days as well as at the level of daily fluctuations from monthly averages showing that the proximal fluctuations from one’s average impact emotional experience more than trait-level regulatory variables. However, it was unclear if high or low goal success on one day impact the subsequent day’s regulatory focus. For example, it was possible that if someone had a highly successful day yesterday then regulatory focus would continue from one day to the day. However, if that person experienced more less goal success than usual the day before then that could have resulted in a regulatory focus switch the next day? Thus, regulatory focus today could have been related to local histories of goal outcome that would illustrate an attempt to adaptively titrate motivational frameworks strategically to ensure goal success. However, the results did not support these possibilities. Regulatory success at the trait or daily fluctuation level the day before had no bearing on someone’s regulatory focus today. These results highlight how important it is to segregate regulatory focus and success measure when understanding motivational orientations and how they relate to continued motivation and emotional experience through time.
Chapter 5
Daily Emotion from Regulatory Focus and Personality

5 Introduction

Previous work has shown that personality dimensions are superordinate factors that influence behavior more distally than regulatory focus variables (Higgins, 2000; Wallace & Chen, 2006). The present analyses focus on conscientiousness, neuroticism, and extraversion of the big five personality dimensions to assess how they interact with regulatory focus variables to predict daily emotional experience.

The Big Five personality dimensions reflect independent qualities of personality that influence behavior and emotion in unique ways (McCrae & Costa, 1987; Costa & McCrae, 1992; DeYoung et al., 2010). Neuroticism and Extraversion are good candidates to approximate promotion and prevention focus as they map onto sensitivities to reward and punishment respectively (Clark & Watson, 2008; Depue & Collins, 1999). As such, extraversion is also linked to other traits such as sociability, approach-oriented behaviours, and eagerness, whereas neuroticism is associated with anxiety, tendencies to worry and emotional lability. These tendencies associated with extraversion and neuroticism have been linked to underlying neuroanatomical areas that subserve reward- and threat-related processing (Depue & Collins, 1999; Eisenberger & Lieberman, 2004).

Conscientiousness is a dimension related to being hard working, responsible, and organized and is closely related to executive top-down control on emotions and behaviour (DeYoung et al., 2010). Previous research has shown that conscientiousness is differentially related to both promotion and prevention focus in predicting behaviour. Specifically, conscientiousness interacts with promotion focus to predict more work productivity and fewer safety behaviours, whereas conscientiousness interacts with prevention focus to increase work safety behaviours but decreases productivity, (Wallace & Chen, 2006).

Here I predicted that high promotion focus and high extraversion would interact to predict more positive emotions and fewer negative emotions. Additionally, I expected higher
levels of prevention focus and neuroticism would interact to predict more negative emotions. Conscientiousness was predicted to interact with both promotion and prevention focus by boosting their respective valence relationships with daily emotion. Specifically, higher levels conscientiousness should boost the positive emotion association with promotion focus and the negative associations with prevention focus due to conscientiousness serving as an overall proxy for motivational investment.

5.1 Results

5.1.1 Regulatory Focus and Success Associations with Personality

First the relationships among conscientiousness ($\alpha = .87$), neuroticism ($\alpha = .85$), extraversion ($\alpha = .82$) and trait regulatory focus and success were examined (see Table 12). Bivariate correlations revealed that trait promotion focus and trait prevention focus were highly correlated, $R^2 = .58, p < .01$, thus showing that people who are highly motivated are highly motivated under both foci. Conscientiousness was most associated with trait prevention focus, $R^2_{\text{consc}} = .06, p < .01$, whereas trait promotion focus was most associated with extraversion, $R^2_{\text{extra}} = .02, p < .01$. Thus, being hardworking and organized was mostly related to being someone who focuses on their duties, obligations and potential losses, whereas being more sociable and enthusiastic was related to being someone who focuses on their dreams, aspirations and future rewards. Although being a prevention-focused person in general was also related to being more neurotic as well as extraverted, and being a promotion-focused person in general was also marginally related to being more neurotic and extraverted, $R^2 = .02, p < .01$. Interestingly, trait promotion success was negatively correlated with both conscientiousness, $R^2 = .008, p < .01$, and neuroticism, $R^2 = .03, p < .01$. Prevention success was unrelated to conscientiousness, but was negatively correlated with neuroticism, $R^2 = .07, p < .01$, and positively correlated with extraversion, $R^2 = .04, p < .01$. Thus, neuroticism is associated with being a generally less successful person and being extraverted is associated with being a generally more prevention successful person.

Next, I wanted to understand which regulatory trait variables best predicted each of the personality dimensions using this base model using multiple regression models:
Big Five Dimension = $\beta_0 + (\beta_1 \text{Trait\_PromotionSuccess} + \beta_2 \text{Trait\_PromotionFocus} + \beta_3 \text{Trait\_PreventionSuccess} + \beta_4 \text{Trait\_PreventionFocus})$

Table 12. Bivariate correlation matrix of personality dimensions and trait regulatory focus and success variables. Note. **$p < .01$, *$p < .05$, †$p > .05$

The regressions revealed that in predicting conscientiousness, only trait prevention focus was significant, $b = .007, SE = .004, t(54) = 2.01, p = .05$, however it did not predict a significant proportion of the variance, $R^2 = .15, F(4, 54) = 2.46, p = .056$. In predicting neuroticism, both trait prevention focus, $b = .009, SE = .004, t(54) = 2.19, p = .03$, and trait prevention success, $b = -.008, SE = .003, t(54) = -2.44, p = .02$, were significant predictors, $R^2 = .25, F(4, 54) = 4.17, p < .01$. However, none of the trait regulatory variables, $ts < | -1.97 |$, were significant in predicting extraversion, $R^2 = .12, F(4, 54) = 1.93, p = .12$. The results showed that when controlling for all other regulatory trait variables, only trait prevention variables predicted personality. One reason for the lack of significance in these models if that the high levels of multicollinearity among the trait regulatory variables does
not account for more captured variance above and beyond their contributions when controlling for each other. In sum, above and beyond the contribution of other trait regulatory variables only trait prevention focus and success significantly predicted conscientiousness and neuroticism.

5.1.2 Predicting Emotion from Regulatory Traits and Daily Fluctuations

Chapter 3 showed that although total daily regulatory focus and success matter in understanding daily emotion and that decomposing these total variables into their components of trait and daily fluctuations from each individuals’ mean is informative. Therefore, the present models will examine these variables in combination with personality factors to predict daily emotional experience. The current models focused on neuroticism, extraversion, and conscientiousness of the big five personality dimensions as well as trait regulatory focus and daily fluctuations of regulatory focus variables were included in the following models to predict daily emotion. Specifically, these models tested the predictions of regulatory focus and emotional experience by using the covariates of neuroticism, extraversion, and conscientiousness separately to predict the daily emotions of sadness, happiness, anxiety, and calm. Recall that all “Trait” regulatory variables reflect monthly averages and all “Flucs” regulatory variables are participant mean-centered thus reflecting someone being more or less focused or successful than they usually are based on their monthly mean.

\[
\text{Daily Emotion} = \beta_0 + (\beta_1 \text{Trait\_PromotionSuccess} \times \beta_2 \text{Trait\_PromotionFocus}) + (\beta_3 \text{Trait\_PreventionSuccess} \times \beta_4 \text{Trait\_PreventionFocus}) + (\beta_5 \text{PromotionSuccess\_Flucs} \times \beta_6 \text{PromotionFocus\_Flucs}) + (\beta_7 \text{PreventionSuccess\_Flucs} \times \beta_8 \text{PreventionFocus\_Flucs})) \times \beta_9 \text{BigFive}
\]

5.1.2.1 Conscientiousness

In this first set of models, daily emotion was predicted from fluctuations above one’s mean and trait-level regulatory focus as well as controlling for conscientiousness. Importantly, despite adding conscientiousness to the model, all of the main effects were replicated from section 3.1.6 (refer to Figures 17-20), however there were two new significant effects (see
Table 13). Specifically, trait promotion focus predicted less daily sadness, $b = -0.25$, $SE = 0.09$, $t(47) = -2.78$, $p < .01$, ES $r = .38$. Surprisingly, controlling for conscientiousness resulted in trait promotion success predicting more daily sadness, $b = 0.27$, $SE = 0.08$, $t(49) = 3.31$, $p < .01$, ES $r = .43$.

The replicated results from section 3.1.6 show mixed support for regulatory focus theory. In support of regulatory focus theory predictions, being more promotion successful than usual predicted more daily happiness, $t = 3.14$, although trait promotion success did not predict more daily happiness, $t = .78$. Moreover, being more promotion successful than usual did not predict daily sadness, $t = -1.08$. Thus, only promotion success fluctuations predicted daily happiness as predicted by regulatory focus theory. Prevention success should be associated with more daily calm and less anxiety. The results support these predictions at the day level of success fluctuation. Being more prevention successful than usual predicted more daily calm, $t = 5.41$, and less anxiety, $t = -2.69$. However, trait prevention success did not predict daily anxiety, $t = -1.16$, but it did predict more daily calm, $t = 2.76$. Again, the results here show that promotion success is most consistently associated with more happiness and prevention success is related to both calm and anxiety.

The differential effects of promotion and prevention focus on the valence of emotion were also replicated. Being more promotion successful than usual predicted more daily happiness, $t = 8.06$. Being more promotion focused than usual also predicted more daily calm, $t = 4.69$, and less daily anxiety, $t = -3.08$. Conversely, trait prevention focus and being more prevention focused than usual predicted more daily sadness, $ts > 2.55$, and anxiety, $ts > 2.40$. Whereas being more prevention focused than usual also predicted less daily happiness, $t = -7.18$, and calm, $t = -6.27$. Thus, promotion focus continued being strictly related to increased positive and decreased negative daily emotion, whereas prevention focus was related to the inverse pattern. Interestingly, daily happiness was not predicted at the trait level for any of the regulatory variables, whereas daily anxiety was strictly related to trait prevention focus and daily calm was strictly related to trait prevention success. Thus, trait regulatory variables have a more specified influence on daily emotion than do regulatory fluctuations, which were more generally related to daily emotional experience.
Conscientiousness did not predict any of the daily emotions, $ts < .89$. However, it did interact with some of the regulatory variables. The interaction between conscientiousness and prevention focus fluctuations was significant in predicting daily anxiety, $b = .15$, $SE = .07$, $t(1691) = 2.24$, $p = .03$, ES $r = .05$, (see Figure 29). There was no significant effect of conscientiousness in explaining daily anxiety at low or high levels of prevention focus fluctuations, ($ps > .2$). However, anxiety was lowest for people who were lower than usual in prevention focus compared to higher than usual prevention focus for both high, $t(1692) = 12.15$, $p < .01$, and low conscientious people, $t(1792) = 7.84$, $p < .01$. These results suggest that people who think about their duties, obligations and potential losses more than usual experience more daily anxiety. It could be the case that only conscientiousness beyond just 1 standard deviation above and below the mean differentiates anxiety levels under higher than usual prevention focus shown here.

![Figure 29](image)

Figure 29. Simple slopes at 1 SD above and below the mean of prevention focus fluctuations and conscientiousness in predicting daily anxiety.

Trait promotion success and conscientiousness interacted to predict daily sadness, $b = -.76$, $SE = .37$, $t(46) = -2.03$, $p = .05$, ES $r = .29$ (Figure 30, left panel). Daily sadness was not affected by trait promotion success at high levels of conscientiousness, $t(48) = .67$, $p = .51$. It was only at low levels of conscientiousness that trait promotion success predicted daily
happiness, $t(48) = 3.28, p < .01$. For high trait promotion successful people, their level of conscientiousness did not predict their daily, $t(46) = -1.59, p = .12$. Sadness was lowest when someone was low in conscientiousness and had low trait promotion success, $t(46) = 2.01, p = .05$.

The interaction between conscientiousness and trait prevention success was also significant in predicting daily sadness, $b = .73, SE = .27, t(46) = 2.74, p < .01$, ES $r = .37$ (Figure 30, right panel). Daily sadness was not affected by trait prevention success if someone was high in conscientiousness, $t(48) = -.64, p = .56$. A different patterned emerged for trait prevention success compared to trait promotion success. Daily sadness was highest when someone was low in trait prevention success and low in conscientiousness, $t(53) = -3.85, p < .01$. Conscientiousness also differentially relates to daily sadness according to trait regulatory focus. It was only under high trait prevention success that conscientiousness predicted daily sadness, $t(46) = 2.69, p < .01$.

Conscientiousness did not predict sadness under low trait prevention success, $t(46) = -1.71, p = .09$. Neither of the conscientiousness subscales (i.e., orderliness and industriousness) interacted with any of the regulatory variables, $ts < 1.30$. Interestingly, it seems that high conscientiousness serves as a buffer against trait regulatory success in affecting daily sadness and that daily sadness is more related to trait variables than daily fluctuation levels.
Figure 30. Simple slopes at 1 SD above and below the mean for the interactions between conscientiousness and trait promotion success (left panel) and trait prevention success (right panel) in predicting daily sadness.

Additionally, conscientiousness interacted with promotion success fluctuations to predict daily happiness, $b = .30, SE = .07, t(1693.0) = 4.26, p < .01, ES r = .10$ (see Figure 31, left panel). Simple slopes analyses showed that if someone was low in conscientiousness then their promotion success fluctuations for that day do not predict their daily happiness, $t(1694) = -.52, p = .60$ (i.e., left panel). However, when someone is more promotion successful than usual and high in conscientiousness they experience more daily happiness than someone who is lower than usual in promotion success for that day, $t(46) = 2.69, p < .01$. Conscientiousness did not predict daily happiness under lower than usual promotion success, $t(49) = -1.17, p = .25$, or higher than usual promotion success, $t(49) = .45, p = .65$. A decomposition of conscientiousness showed that the orderliness subscale interacted with promotion success fluctuations, $b = .20, SE = .07, t(1688) = 2.96, p < .01, ES r = .07$, as did the industriousness subscale, $b = .12, SE = .05, t(1688) = 2.32, p = .02, ES r = .06$.

Figure 31. Simple slopes at 1 SD above and below the mean for the interactions between conscientiousness and promotion success fluctuations predicting daily happiness (left panel) and prevention success fluctuations predicting daily happiness (right panel).

Lastly, conscientiousness interacted with prevention success fluctuations to predict daily happiness, $b = -.12, SE = .05, t(1693.0) = -2.31, p = .02, ES r = .06$ (see Figure 31, right panel).
Simple slopes analyses showed that if someone was high in conscientiousness then their level of prevention success that day does not predict their daily happiness, $t(1694) = 1.16, p = .25$. However, if someone was low in conscientiousness then prevention success fluctuations predicted daily happiness, $t(1694) = 3.99, p < .01$. Moreover, conscientiousness did not predict daily happiness under higher, $t(49) = -.76, p = .45$, or lower than usual prevention success, $t(49) = .05, p = .96$. These patterns reflect opposite moderating effects of conscientiousness on promotion and prevention success. Thus, high conscientiousness and low promotion success is detrimental to daily happiness, whereas low conscientiousness and higher than usual prevention success relates to more daily happiness. A decomposition of conscientiousness showed that neither subscales interacted with prevention success fluctuations, $ts < -1.51$.

Adding conscientiousness to the model of predicting daily calm did not change any of the previously reported effects. In line with regulatory focus theory, trait prevention success and prevention success fluctuations remained significant in predicting more daily calm, $ts > 2.76$. Moreover, promotion success and focus fluctuations predicted more daily calm, $ts > 2.22$. The main effect of prevention focus fluctuations also remained significant in predicting less daily calm, $t = -6.27$. There was no interaction between conscientiousness and any of the regulatory focus variables, $ts < -1.84$.

### 5.1.2.2 Neuroticism

Adding neuroticism to the model resulted in similar patterns for regulatory variables as well as an interaction with neuroticism (see Table 14). When neuroticism was added to the model, the main effects of trait promotion focus, trait promotion success, and trait prevention success no longer predicted daily sadness, $ts < -1.99$. Additionally, the main effects of trait prevention success and promotion success fluctuations no longer predicted daily calm, $ts < 1.72$. With the exception of these nonsignificant main effects, the rest of the regulatory main effects were replicated. Neuroticism did not predict any of the daily emotions, $ts < 1.86$. However, there was a Neuroticism X Prevention Focus Fluc interaction predicting daily sadness, $b = -.13, SE = .05, t(1694.0) = -2.46, p = .01$, ES $r = .08$. (see Figure 32).
When prevention focus was lower than usual, high neuroticism was shown to exacerbate daily sadness, $t(54) = 2.37, p = .02$. For individuals high in neuroticism, daily prevention focus fluctuations were not associated with daily sadness at higher than usual prevention focus, neuroticism did not predict daily sadness, $t(52) = 1.21, p = .23$. For individuals high in neuroticism, daily prevention focus fluctuations were not associated with daily sadness, $t(1694) = 1.14, p = .16$. High neuroticism could reflect a ceiling effect on the influence of daily sadness relating to motivational focus. Lastly, if someone was low in neuroticism then being more or less prevention focused did predict daily sadness, $t(1696) = 4.90, p < .01$. Here, being low in neuroticism and thinking less than usual about your duties, responsibilities, obligations and future potential losses predicted the lowest daily sadness.
A decomposition of neuroticism into its subscales showed that there were no interactions between them and prevention focus fluctuations, ts < |1.74|.

5.1.2.3 Extraversion

In the last set of models, daily emotion was predicted from fluctuations above one’s mean and trait regulatory variables as well as extraversion (see Table 15). The same patterns for regulatory variables were found with some new additions. Specifically, adding extraversion to the model resulted in trait promotion success and focus and promotion success fluctuations significantly predicting daily anxiety, ts > |1.99|. Extraversion did not predict any of the daily emotions, ts < |1.41|, but there was an Extraversion X Prevention Success Flucs interaction predicting daily sadness, b = .13, SE = .06, t(1694) = 2.03, p = .04, ES r = .05, (see Figure 33, left panel).

Figure 33. Simple slopes at 1 SD above and below the mean for the interactions between prevention success fluctuations and extraversion in predicting daily sadness (right panel) and the interaction between promotion success fluctuations and extraversion (right panel) in predicting daily anxiety.

Simple slopes analyses showed that when prevention success was lower than usual, there was no effect of extraversion on daily sadness, t(1693) = .28, p = .78. However, prevention success fluctuations did predict less daily sadness at low levels of extraversion where lower than usual prevention success predicted more daily sadness than higher than usual prevention success, t(1695) = -3.73, p < .01. Sadness was higher for someone low in
extraversion experiencing lower than usual prevention success. High levels of extraversion seem to protect against fluctuations of prevention success in relation to the presence of daily sadness. However, extraversion did not contribute to daily sadness at high, \( t(54) = 1.21, p = .23 \), or low levels of prevention success fluctuations, \( t(54) = .17, p = .87 \).

Extraversion also interacted with being more promotion successful than usual to predict daily anxiety, \( b = .35, SE = .09, t(1691.0) = 3.73, p < .01, ES r = .09 \) (see Figure 33, right panel). Simple slopes analyses showed that when promotion success was lower than usual, there was no effect of extraversion on daily anxiety, \( t(49) = -.14, p = .89 \). Nor was there an effect of extraversion on daily anxiety when promotion success was higher than usual, there was no effect \( t(49) = 1.55, p = .13 \). Similarly, if extraversion was high, then promotion success fluctuations did not predict daily anxiety, \( t(1690) = 1.39, p = .16 \).

Anxiety was lowest when extraversion was low and promotion success was lower than usual, \( t(1692) = -3.79, p < .01 \). This provides more evidence that high extraversion serves as a buffer against goal success fluctuations for negative emotions. A decomposition of extraversion showed that the assertiveness subscale interacted with promotion success fluctuations to predict daily anxiety, \( b = .29, SE = .07, t(1684) = 3.92, p < .01, ES r = .10 \). Extraversion comprises the subscales of assertiveness (i.e., agency, leadership tendency) and enthusiasm (i.e., positive affect, sociability). A decomposition of extraversion showed that the enthusiasm subscale interacted with promotion success fluctuations to predict daily anxiety, \( b = .11, SE = .04, t(1689) = 2.95, p < .01, ES r = .07 \).

5.2 Discussion

The current analyses sought to understand how regulatory focus related to emotional experience while controlling for the influence of the big five personality factors. Given the wide range of behavioural, cognitive, and perceptual differences related to regulatory focus, it was expected that regulatory focus would relate to differences in personality dimensions. Specifically, the aspects of personality captured in conscientiousness, neuroticism, and extraversion are of particular interest. Extraversion broadly relates to positive emotionality, sociability, enthusiasm and optimism, whereas neuroticism relates to negative emotionality involving propensities for worry, insecurity, and emotional
volatility (Costa & McCrae, 1998; Elliot & Thrash, 2002). There is evidence that promotion focus is more related to extraversion and that prevention focus is more related to neuroticism (Cunningham, Farb, & Nezlek, 2005). Surprisingly, personality factors were generally unrelated to daily emotional experience. This suggests that personality traits as measured by the big five factors do not capture more variance above and beyond daily regulatory focus variables. However, personality facets interacted with regulatory success and focus to predict daily emotion.

However, my data demonstrate that the relationship between regulatory focus and conscientiousness is more complicated. Regulatory focus moderates the effect of conscientiousness on certain behavioural outcomes. Specifically, promotion focus moderated the effect of conscientiousness in positively predicting production performance and negatively predicting safety performance (Wallace & Chen, 2006). Conversely, prevention focus mediated the effect of conscientiousness in negatively predicting production performance and positively predicting safety performance. Thus, showing that the effect of conscientiousness alone on behaviour may be inconsistent or weak if not considered along with regulatory focus orientations (Wallace & Chen, 2006).

Daily anxiety was shown to be highest when individuals high in conscientiousness experienced more prevention focus than usual, suggesting that being someone who is very hardworking and responsible and who focuses more on their duties, obligations and potential losses experiences more anxiety than someone how is less hardworking and responsible but similarly high in prevention focus. This effect was related to the industriousness subscale of conscientiousness. Conscientiousness has been shown to relate to both promotion and prevention focus but in different ways (Wallace & Chen, 2006). Promotion focus and conscientiousness relate to more productivity but worse safety behaviours and prevention focus and conscientiousness relate to less productivity but more work safety behaviours. In the present study, conscientiousness interacted with both trait promotion and prevention success in differential ways to predict daily sadness. In both cases, high conscientiousness served as a buffer against influences of trait regulatory success on daily sadness. However, at low levels of conscientiousness, high trait promotion success predicted the most sadness, whereas low conscientiousness and high
trait prevention success predicted the least daily sadness. Neither of the subscales for conscientiousness was related to trait promotion or prevention success in predicting daily sadness. It is theoretically unclear why these differences occur for low conscientiousness and trait promotion and prevention success. It could be that trait promotion and prevention success manifest for different reasons that only low conscientiousness highlights. However, at this point speculation warrants caution without further research.

Conscientiousness also interacted with both daily promotion and prevention success fluctuations in differential ways to predict daily sadness. Happiness was not affected by promotion or prevention success fluctuations if someone was low in conscientiousness, but for someone high in conscientiousness happiness was lowest if they also had lower promotion success than usual. The converse was seen when assessing conscientiousness interacting with prevention success. However, daily happiness was highest for individuals with low conscientiousness who had more prevention success than usual. The results show that on days when someone experiences less than usual success in their hopes, dreams and aspirations and they are also highly hardworking and responsible people daily happiness is low. Both the industriousness and orderliness subscales were related to promotion success fluctuations, but neither subscale was related to prevention success fluctuations in predicting daily happiness.

However, highly conscientious individuals’ daily happiness was not affected by their prevention success fluctuations. It is only people who are low in conscientiousness who experience more daily happiness if they also have more successes with their duties, obligations and avoiding potential losses than they usually do. It could be that prevention success for people who are not very conscientious (i.e., hardworking or responsible) comes as a delightful surprise which could increase daily happiness, whereas expecting such success because you are a diligent and committed person my attenuate the resultant happiness from goal success. It could also be the case that promotion success is not given the same weight as prevention success, which may explain the differences in happiness at different levels of conscientiousness. Indeed, prevention goals are often seen as minimal goals that must be completed, whereas promotion goals are seen as maximal goals, things someone wishes for (Plutchik, 1980; Brendl & Higgins, 1996).
People high in conscientiousness have better resiliency in the face of setbacks by attenuating the effects of negative emotion (Javaras et al., 2012). However, they also show greater decrements in life satisfaction after job losses, especially if their unemployment has last several years (Boyce, Wood, & Brown, 2010). Therefore, conscientious people may exhibit greater emotion regulation and top-down control in the face of adversity, but they may also invest more heavily in the jobs they devote themselves to suggesting that their resiliency depends, in part, on their level of investment in the task at hand. The differential intensities of regulatory success fluctuations on emotion paired with conscientiousness may reflect greater motivational investment, which as been shown to increase the affective components of goal outcomes (Weiner, 1986; Brockner & Higgins, 2001). Therefore, the negative effects of lower than usual promotion success are exacerbated if someone is high in conscientiousness, but they are attenuated if someone is low in conscientiousness. Conversely, prevention success only affects daily happiness if conscientiousness is low where low prevention success results in less daily happiness than higher success.

Neuroticism is known to be associated with negative affect and emotional volatility and was expected to be associated with anxiety (McCrae & Costa, 1987). Surprisingly, neuroticism did not interact with any regulatory variables to predict daily anxiety. Instead, there was an interplay between neuroticism and being more prevention focused than usual in predicting daily sadness. Daily sadness was highest for people high in neuroticism and particularly for days that were higher than usual in prevention focus. Thus, being someone who is more negatively reactive and prone to worry and focusing more than usual on duties, obligations and potential loss predicts the most daily sadness. Interestingly, extraversion moderated the effects of promotion and prevention success fluctuations in similar ways. Someone who is high in extraversion is sociable, experiences more positive emotion, and is eager to engage in new experiences (Costa & McCrae, 1992; DeYoung et al., 2010). High extraversion seemed to buffer against the influence of promotion and prevention success fluctuations on daily anxiety and sadness respectively. Daily anxiety was lowest for low-extraverted people who had more promotion successful days than usual, and daily sadness was lowest for low-extraverted people who had more prevention successful days than usual. The assertiveness subscale was related to promotion success.
fluctuations in predicting daily anxiety, whereas the enthusiasm subscale was related to prevention success fluctuations in predicting daily sadness. Thus, low assertiveness and more promotion success than usual predicts decreased daily anxiety, and low enthusiasm and more prevention success than usual predicts reduced daily sadness. These findings expand on regulatory focus theory by demonstrating the interplay of personality factors on the relationship between regulatory focus and success and daily emotional experience.
Chapter 6
Lagged Effects and Personality Predicting Regulatory Focus

6 Introduction

Chapter 4 assessed how regulatory focus and success as daily totals and daily fluctuations (i.e., yesterday’s regulatory focus) and the trait level (i.e., one’s monthly average) predicted one’s regulatory focus on the current day. This chapter will attempt to replicate Chapter 4’s regulatory trait and fluctuation results controlling for the personality variables of conscientiousness, neuroticism, and extraversion.

My data revealed that regulatory focus, both during the previous day and at the trait level, were the only factors that predicted the current day’s regulatory focus. Trait-level variables were better predictors of regulatory focus on a given day. The results showed that the current day’s promotion focus was influenced by yesterday’s promotion focus fluctuations and prevention focus fluctuations. However, the current day’s prevention focus was purely a function of yesterday’s prevention focus. Interestingly, at the trait level, there was also specificity in the current day’s regulatory focus. Namely, that trait promotion focus predicted the current day’s promotion focus and trait prevention focus predicted the current day’s prevention focus. Meaning that if you generally mostly think about your hopes, dreams, and aspirations or if you mostly think about your duties, obligations, and responsibilities then you will also do so on any given day. There is more flexibility at the local, day level where promotion focus on the current day was more broadly influenced by regulatory focus fluctuations (i.e., both promotion and prevention focus), whereas there was strict concordance in prevention focus today being related only to prevention focus fluctuations yesterday. This concordance was also reflected at the trait level.
6.1 Results

6.1.1 Predicting Regulatory Focus from Personality and Regulatory Decompositions

The next set of analyses sought to assess the role of trait-level regulatory variables in predicting the current day’s regulatory focus controlling for neuroticism, extraversion, and conscientiousness using the following model structure:

\[
\text{Regulatory Focus} = \beta_0 + \beta_1(\text{Yesterday_PromotionFocus_Flucs}) + \\
\beta_2(\text{Yesterday_PreventionFocus_Flucs}) + \beta_3(\text{Yesterday_PromotionSuccess_Flucs}) + \\
\beta_4(\text{Yesterday_PreventionSuccess_Flucs}) + \beta_5(\text{Trait_PromotionFocus}) + \\
\beta_6(\text{Trait_PreventionFocus}) + \beta_7(\text{Trait_PromotionSuccess}) + \\
\beta_8(\text{Trait_PreventionSuccess}) \cdot \beta_9\text{BigFive}
\]

The results from Chapter 4 were replicated, showing that the addition of personality variables had no appreciable effect on the previously reported results (refer to figures 27 and 27; see also Tables 16, 17, and 18). In predicting the current day’s promotion focus, only trait promotion focus, yesterday’s promotion focus fluctuations and yesterday’s prevention focus fluctuations were significant, \(t > 2.93\). However, in predicting the current day’s prevention focus, only trait prevention focus and yesterday’s prevention focus fluctuations were significant, \(t > 12.05\). These results show further support that promotion focus on a given day is related to an overall effect of yesterday’s regulatory focus fluctuations as well as trait promotion focus even when controlling for conscientiousness, neuroticism, and extraversion. Conversely, prevention focus today was only related the yesterday’s prevention focus fluctuations and trait prevention focus. Surprisingly, neither trait success nor yesterday’s success fluctuations were significantly associated with the current day’s regulatory focus. This suggests that regulatory focus is more influenced by habitual factors relating to a preferred regulatory focus as well as daily fluctuations in that focus, but is not influenced by goal progress at the trait or daily level.
6.1.1.1 Interactions Predicting Promotion Focus

There were a number of interactions between personality and regulatory variables in predicting regulatory focus on a given day. There was a Conscientiousness X Yesterday Promotion Focus Fluctuations interaction in predicting the current day’s prevention focus, $b = -0.22$, $SE = 0.11$, $t(1747) = -2.09$, $p = .04$, ES $r = .07$ (See Figure 34, left panel). Simple slopes analyses revealed that when yesterday was lower than usual in promotion focus, then conscientiousness did not predict today’s promotion focus, $t(1747) = 1.45$, $p = .15$. Nor did conscientiousness predict today’s promotion focus if yesterday was higher than usual in promotion focus, $t(1747) = -1.63$, $p = .10$. Thus, promotion focus continued from yesterday to the next day regardless of someone’s level of conscientiousness. However, promotion focus fluctuations predicted today’s promotion focus at both high conscientiousness, $t(1747) = 5.90$, $p < .01$, and low conscientious, $t(1747) = 7.62$, $p < .01$. A decomposition of conscientiousness showed that neither of its subscales interacted with yesterday’s promotion focus fluctuations, $ts < |-1.84|$.

There was also an interaction between conscientiousness and yesterday’s prevention focus fluctuations in predicting the today’s promotion focus, $b = .22$, $SE = .08$, $t(1747) = 2.89$, $p < .01$, ES $r = .06$ (see Figure 34, right panel). Simple slopes analyses showed that when yesterday was lower than usual in prevention focus, then conscientiousness did predict today’s promotion focus, $t(1747) = -2.07$, $p = .04$. However, when yesterday was higher than usual in prevention focus, then conscientiousness did predict today’s promotion focus, $t(1747) = 1.87$, $p = .06$. When conscientiousness was high, then yesterday’s prevention focus fluctuations predicted today’s promotion focus, $t(1747) = 4.42$, $p < .01$. However, when conscientiousness was low, then yesterday’s prevention focus fluctuations did not predict today’s promotion focus, $t(1747) = .16$, $p = .88$ In other words, if you are not very hardworking or responsible then how much you thought about your duties, obligations and future losses yesterday did not influence how much you thought about your dreams, aspirations and future rewards today. However, if you are a rather hardworking and responsible person, then thinking more about your duties, obligations and future losses predicted more focus on your hopes, dreams, and future rewards today.
A decomposition of conscientiousness showed that the industriousness subscale that interacted with yesterday’s prevention focus, $b = .15$, $SE = .06$, $t(1738) = 2.47$, $p = .01$, $ES_r = .05$.

Figure 34. Simple slopes at 1 SD above and below the mean for the interactions between yesterday’s promotion fluctuations (i.e., left panel) and prevention focus fluctuations (i.e., right panel) and conscientiousness in predicting today’s promotion focus.

Extraversion also interacted with yesterday’s prevention focus fluctuations to predict today’s promotion focus, $b = .24$, $SE = .11$, $t(1747) = 2.11$, $p = .04$, $ES_r = .05$ (see Figure 35). The same pattern for conscientiousness and prevention focus fluctuations yesterday was present here for extraversion. Specifically, if yesterday was lower than usual in prevention focus yesterday, then extraversion did not predict today’s promotion focus, $t(1747) = .49$, $p = .62$. Similarly, if yesterday was higher than usual in prevention focus yesterday, then extraversion did not predict today’s promotion focus, $t = 1.42$, $p = .16$. However, yesterday’s prevention focus fluctuations did predict today’s promotion focus under high extraversion, $t(1747) = 3.28$, $p < .01$. Although, yesterday’s prevention focus fluctuations did not predict today’s promotion focus under low extraversion, $t = 1.00$, $p = .32$. Thus, if someone was a highly extraverted person, then thinking more than usual yesterday about their duties, responsibilities and obligations predicted more thinking about their hopes, dreams and aspirations the next day. This could reflect an eagerness to adopt promotion considerations after having been heavily focused on duties, obligations, and
potential losses. However, if someone was low in extraversion then prevention focus fluctuations the day before did not predict promotion focus on the next day. Moreover, extraversion did not predict today’s promotion focus at higher, or lower than usual levels of prevention focus yesterday. A decomposition of extraversion showed that neither the assertiveness nor the enthusiasm subscales interacted with yesterday’s prevention focus fluctuations, $t_s < 1.56$.

![Interaction between yesterday’s prevention focus fluctuations and extraversion in predicting today’s promotion focus](image)

Figure 35. Simple slopes at 1 SD above and below the mean for the interaction between yesterday’s prevention focus fluctuations and extraversion in predicting today’s promotion focus.

### 6.1.1.2 Interactions Predicting Prevention Focus

The same variables were now used to predict someone’s daily prevention focus. There were several interactions with conscientiousness and yesterday’s regulatory focus fluctuations.
Conscientiousness interacted with promotion focus fluctuations yesterday to predict today’s prevention focus, $b = -.43$, $SE = .13$, $t(1747) = -3.41$, $p < .01$, ES $r = .08$ (see Figure 36, left panel). Conscientiousness predicted today’s prevention focus if someone was less promotion focused than usual yesterday, $t(1747) = 2.45$, $p = .01$.

Conscientiousness also predicted today’s prevention focus if someone was more promotion focused than usual yesterday, $t(1747) = -2.58$, $p < .01$. If someone was high in conscientiousness, then promotion focus fluctuations yesterday predicted prevention focus today, $t(1747) = -2.43$, $p = .02$. Similarly, if someone was low in conscientiousness then promotion focus fluctuations yesterday also predicted prevention focus today, $t(1747) = -2.28$, $p = .02$. The industriousness subscale interacted with promotion focus fluctuations yesterday to predict today’s prevention focus, $b = -.32$, $SE = .10$, $t(1738) = -3.30$, $p < .01$, ES $r = .08$.

There was also an interaction between conscientiousness and yesterday’s prevention focus in predicting the current day’s prevention focus, $b = .34$, $SE = .09$, $t(1747) = 3.73$, $p < .01$, ES $r = .09$ (see Figure 36, right panel). Specifically, Conscientiousness predicted today’s prevention focus if someone was less prevention focused than usual yesterday, $t(1747) = -2.62$, $p < .01$. Thus, if you are a hardworking and responsible person and you were less
focused on your duties, responsibilities and future losses yesterday, then you were also thinking about those concerns less the next day.

Conscientiousness also predicted today’s prevention focus if someone was more prevention focused than usual yesterday, \( t(1747) = 2.48, p < .01 \). Thus, if you are a hardworking and responsible person and you were more focused on your duties, responsibilities and future losses yesterday, then you were also thinking about those concerns more the next day. Conversely, someone’s prevention focus today was lowest if they were a rather hardworking person but thought less than usual yesterday about your duties, responsibilities and future losses. Moreover, yesterday’s prevention focus fluctuations predicted the next day’s prevention focus at both low levels of conscientiousness, \( t(1747) = 5.88, p < .01 \), and high levels of conscientiousness, \( t(1747) = 12.27, p < .01 \). A decomposition of conscientiousness showed that the industriousness, \( b = .15, SE = .07, t(1738) = 2.13, p = .03, ES r = .05 \), and orderliness subscales both interacted with yesterday’s prevention focus fluctuations to predict today’s prevention focus, \( b = .19, SE = .07, t(1738) = 2.11, p = .03, ES r = .05 \).

Lastly, there was also an interaction between conscientiousness and yesterday’s promotion success fluctuations in predicting today’s prevention focus, \( b = .18, SE = .09, t(1747) = 1.98, p = .05, ES r = .06 \) (See Figure 37). Interestingly, compared to the predictions of today’s promotion focus, this interaction shows a flip of the Conscientiousness X Yesterday Promotion Focus Fluc interaction pattern in predicting today’s prevention focus. When yesterday was lower than usual in promotion success, then conscientiousness predicted today’s prevention focus, \( t(1747) = 2.45, p = .01 \). This suggests that prevention focus the day was lower if someone was very hardworking and responsible but was less successful than usual yesterday in achieving their hopes, dreams and rewards. Additionally, if yesterday was higher than usual in promotion success, then conscientiousness also predicted today’s prevention focus, \( t(1747) = -2.58, p < .01 \). In other words, someone who was hardworking and responsible and was more successful than usual yesterday in their hopes, dreams and rewards yesterday was more focused on their duties, obligations and potential losses the next day. Thus, being less successful than usual in your promotion goals yesterday only results in more prevention focus the next day.
if you are someone who is not very hardworking or responsible. People who are hardworking and responsible and who were more promotion successful than usual the day before continued with a high prevention motivated orientation the next day. Promotion success fluctuations yesterday did not predict prevention focus today under high conscientiousness, $t(1747) = 1.96, p = .06$, or under low conscientiousness, $t(1747) = -.72, p = .47$. A decomposition of conscientiousness showed that is the industriousness subscale that interacts with yesterday’s prevention focus fluctuations, $b = .17, SE = .07, t(1738) = 2.56, p = .01, ES r = .06$.

![Graph showing the interaction between promotion success and conscientiousness predicting prevention focus.](image)

Figure 37. Simple slopes at 1 SD above and below the mean for the interaction between yesterday’s promotion success fluctuations and conscientiousness predicting today’s prevention focus.

### 6.2 Discussion

Regulatory focus has been shown to involve state- and trait-level determinants (Crowe & Higgins, 1997; Shah & Higgins, 2001), however it is unclear how regulatory focus is most influenced in daily life. Of particular interest, is how regulatory success and focus at the trait- and day-level influence the current day’s level of regulatory focus and how these variables compare with the big five personality dimensions in predicting daily regulatory focus.
The results from Chapter 4 were mirrored here, showing that the current day’s regulatory focus is not associated with yesterday’s success, but instead, is most related to trait regulatory focus and yesterday’s level of regulatory focus. Trait promotion focus was related to more promotion focus on a given day, and trait prevention focus was related to more prevention focus on a given day. However, this strict correspondence between foci at the trait and day-level was not shown at the day level. Promotion focus on a given day seems to represent a general motivational continuity where both promotion and prevention focus the day before influenced promotion focus today. Conversely, prevention focus on a given day seems to be particularly related to prevention focus the day before, thus representing a continuity of prevention focus over time. Therefore, regulatory focus appears to have less to do with prior successes and more to do with a combination of trait-level regulatory focus and the most recently employed focus at the day level.

The influence of personality dimensions showed that conscientiousness interacted with regulatory focus in differential ways. In predicting the current day’s promotion and prevention focus, yesterday’s prevention focus fluctuations and conscientiousness were important. How much someone thinks about their hopes, dreams, and future rewards depends upon promotion and prevention focused fluctuations they were yesterday as well as their trait level of thinking about their hopes, dreams, and future rewards. Moreover, these patterns depend upon varying levels of personality. Specifically, individuals lower in conscientiousness continue thinking about their hopes, dreams, and future rewards especially if they thought about those things more than usual the day before. The opposite patterns were found for yesterday’s prevention focus. In other words, if you are low in conscientiousness then how prevention focused you were yesterday did not influence how promotion focused you were today.

However, if you are a highly conscientious person, then being more prevention focused than usual yesterday predicted more promotion focus today. And this effect is particularly related to the industriousness aspect of conscientiousness. This suggests that high levels of conscientiousness may encourage an adoption of promotion focus after periods of high engagement with prevention goals. Someone who is very hardworking may be more likely to switch to thinking about their hopes, dreams, and future rewards as a way to stave off
depletion from prolonged considerations of their duties, obligations and futures losses. My data have shown that prevention focus is particularly related to more negative and less positive daily emotion, while promotion focus is particularly related to more positive and less negative daily emotion. Highly conscientious people may experience these attendant emotions more intensely. These differences in focus may reflect greater motivational investment, which has been shown to increase the affective components of goal outcomes (Weiner, 1986; Brockner & Higgins, 2001), but may also influence the emotional effects of regulatory focus itself. Therefore, highly conscientious people may experience more intense negative emotion from merely being prevention focused, which could cause motivational fatigue overtime.

This motivational fatigue may be related to the process model of self-control where fatigue causes motivations to shift from “have-to” goals to “want-to” goals. “Have-to” tasks relate to one’s duties and obligations and “want-to” tasks relate to enjoyable and meaningful activities one wants to do (e.g., eat a piece of chocolate, connect with friends). The idea is that engaging in “have-to” tasks over time, especially at the expense of pleasurable tasks, results in abandoning “have-to” tasks in order to pursue “want-to” tasks. The crucial reason for this is not because the finitude of self-control as a resource has been depleted but that the goals have switched in the moment. Exerting sustained cognitive control in tasks is aversive (Botvinick, 2007) and people tend to avoid prolonged engagement in these kinds of tasks (Kool et al., 2010). However, people will continue to exert mental effort if they are given incentives to do so although, over time, the incentives will need to increase according to the length of engagement or else they will pursue “want-to” tasks (Botvinick, 2007). Thus, adaptive functioning requires a balance between labor-intensive pursuits and leisure pursuits. Switching to a promotion focus may be an adaptive recharging of motivational resources.

This explanation also makes sense given that low conscientious people are more promotion focused if they were also higher than usual in promotion focus yesterday, thus reflecting a continued orientation towards hopes, dreams, and rewards and not less appetitive considerations like duties and obligations. The same pattern held for people high in extraversion where higher than usual prevention focus yesterday predicted more...
promotion focus today, where prevention focus fluctuations had no effect on low extraverted people. This could reflect an eagerness to adopt promotion considerations after having been heavily focused on duties, obligations, and potential losses. A promotion focus would be a natural orientation for someone who is sociable, enthusiastic, and eager for new rewarding experiences, so a day high in a mindset that is not their preferred one could result in adopting an orientation that is more in line with their natural proclivities.

Interestingly, conscientiousness, neuroticism, and extraversion are all more strongly related to trait prevention focus than trait promotion focus. This may reflect prevention goals reflecting necessities that must be completed on a daily basis, whereas promotion goals are aspirational and typically not pressing (Higgins, 1998). Indeed, research has shown that prevention goals are more temporally proximal and promotion goals are more temporally distal, (Pennington & Roese, 2003). When goals are further away in their attainment, a promotion focus is more likely to be adopted. Promotion focus decreases as goals became nearer, and prevention concerns become more predominant (Pennington & Roese, 2003). This makes sense given that promotion focus allows for more flexible thinking and creativity which is a benefit when you have more time to adjust your strategies and energy, but when the goal draws nearer and time to completion decreases adopting a more vigilant and rigidly focused mindset may be more beneficial to goal success, (Liberman et al., 1999, 2001; Pennington & Roese, 2003).

In predicting today’s prevention focus, if someone was low in conscientiousness and yesterday they thought more than usual about their hopes, dreams, and future rewards then on the following day they thought more about their duties, obligations and future losses. However, for people who are highly hardworking and responsible and yesterday they thought more than usual about their hopes, dreams, and future rewards then on the following day they thought less about their duties, obligations and future losses. In other words, for people who are not very hardworking and responsible prevention focus today was highest if they thought more than usual about their hopes, dreams, and future rewards yesterday. The opposite was found for very hardworking people where they are most prevention focused today if they thought less than usual about their hopes, dreams, and future rewards yesterday. It could be that hardworking people only switch foci when their
orientation the day before was low, but that not very hardworking people will switch regardless of these levels.

This pattern was similar to the interaction between conscientiousness and prevention focus fluctuations yesterday predicting promotion focus except that now low conscientiousness and prevention focus fluctuations yesterday did predict today’s prevention focus. Specifically, being someone who is not very hardworking but who was more prevention focused yesterday than usual was also more prevention focused today. This was also true for highly conscientious people but to a larger degree. If you are a hardworking person and you were more focused on your duties, responsibilities and future losses yesterday then you were also thinking about them to a high degree today. Conversely, your prevention focus today was lowest if you were a hardworking person but thought less than usual yesterday about your duties, responsibilities and future losses. These differences could reflect the fact that people become more motivationally engaged and specifically prevention focus as goals come closer to completion or to their deadlines (Förster, Higgins & Idson, 1998; Pennington & Roese, 2003). Moreover, as a goal’s deadline approaches motivation increases (Förster, Higgins & Idson, 1998). Interestingly, this interaction shows the opposite pattern of the interaction with promotion focus in predicting today’s prevention success. Someone high in conscientiousness and was higher than usual in promotion focus yesterday was more prevention focused on their today. Whereas prevention focus was highest if someone was low in conscientiousness and low in promotion success. Thus, failing in your promotion goals yesterday only results in more prevention focus today if you are not very hardworking or responsible. People who are high in conscientiousness and were more promotion successful than usual the day before continued with a high prevention motivated orientation the next day.

In conclusion, the determinants of regulatory focus on a given day are related to both trait- and day-level regulatory focus, and this relationship is moderated by personality traits, mainly conscientiousness. Thus, in trying to understand the influences of someone’s regulatory focus, regulatory success is not relevant, but daily regulatory focus fluctuations and traits as well as personality measures are important for understanding why individuals adopts a specific regulatory orientation over another.
Chapter 7
General Discussion

7 Regulatory Focus Theory and Daily Emotional Experience

7.1 Regulatory Focus and Success Predicting Emotion

The present study sought to test the predictions of regulatory focus theory in daily life with an experience sampling procedure. Specifically, regulatory focus theory predicts differences in emotional experience related to success and failure under each focus (Higgins, 1997). Under a promotion focus orientation, goal success would be accompanied by feelings of happiness and goal failure would involve feelings of sadness. Conversely, under a prevention focus orientation, goal success would involve feelings of calm and failure would involve feelings of anxiety. Regulatory focus theory purports that focusing only on the valence of emotional responses to goal outcomes ignores the differential effects that specific positive and negative emotions have on subsequent behaviour. The theory proposes specific emotions for success and failure under the different foci because these emotions serve different purposes. For example, sadness takes the place of a missed reward and results in more high risk/high reward choices, whereas anxiety serves to reduce uncertainty and favours options that are low in risk and reward (Raghunathan and Pham, 1999; Higgins, 1997). Thus, emotional specificity differentially aids in adaptive goal pursuit under each focus.

However, the results of the present study do not support the emotional specificity predicted by regulatory focus theory. Rather, the results support the idea that promotion and prevention focus and success seem more broadly related to positive and negative emotions generally than to specific emotional experiences. Promotion success was only consistently related to happiness. Prevention success was also related to more daily happiness, and in certain models, prevention success was more strongly related to daily happiness than promotion success. Contrary to my predictions as well, prevention success was largely unrelated to daily anxiety. However, prevention success was consistently related to more daily calm. Promotion success was also related to more daily calm, but to a
lesser degree. Overall, the results show that regulatory success in general was associated with more overall positive daily emotion. However, the magnitude of prevention success was greater than promotion success, suggesting that prevention success mitigates the aversive aspects of prevention-focused goal pursuit.

Historically, the predictions of regulatory focus theory regarding emotion experience have homed in on regulatory success. In other words, the possibility of promotion and prevention focus themselves relating to specific emotional experiences has not been adequately assessed. My data demonstrate that regulatory focus itself is strongly related to daily emotional experience above and beyond the success of goal outcomes. Promotion focus was consistently related to more positive daily emotions of happiness and calm and less negative emotions of sadness and anxiety. The opposite patterns held for prevention focus, where more sadness and anxiety and less happiness and calm were present on days when someone was highly prevention focused. After taking regulatory focus and regulatory success into account within the same model, regulatory success did not substantially account for variance in daily emotional experiences. Generally, regulatory success was associated with more daily positive emotions, namely happiness and calm. In contrast, regulatory focus could be used to differentially predict positive and negative emotional experiences.

Promotion focus represents approaching rewards as goals and prioritizes one’s nurturance needs and concerns one’s hopes, dreams, and aspirations, whereas prevention focus represents avoiding failure and loss and prioritizes safety and concerns about fulfilling one’s duties, responsibilities and obligations. Thus, my data suggest that emotion experience is selectively adapted to regulatory focus strategies. However, my findings raise the question of whether regulatory focus theory accounts for these emotional experiences better than the hedonic principle of approaching pleasure and avoiding pain. In other words, is regulatory focus theory the less parsimonious account of daily emotional experience?

I would argue that regulatory focus theory represents a more nuanced explanation of emotional experience due to interactions I have demonstrated between regulatory focus
and success. Regulatory focus and success interacted to influence daily emotion. Specifically, daily sadness was highest if someone was low in promotion focus regardless of goal outcome. If someone had a high prevention-focused day (suggesting that they were thinking a lot about their duties, obligations, and future losses), then also having less success in those concerns predicted the most daily sadness. Thus, sadness relates to dwelling on your duties, responsibilities and potential future losses and not thinking about your hopes, dreams and future rewards. Having a less prevention focused-day imparted a resiliency against the buffeting effects of goal outcome on daily sadness as well as daily happiness. In other words, goal success mainly influenced daily emotion on days when prevention focus was high. The only exception to this general relationship was in predicting daily calm, which was not related to prevention focus and success interactions. Interestingly, promotion success did not influence daily happiness on days when promotion focus was high, suggesting that high promotion focus imparts a resiliency against goal outcome. Indeed, it was only under low promotion success that low goal success predicted less daily happiness.

However, the opposite patterns were found for daily calm; high promotion focus and promotion success both mattered for daily calm. Daily calm was highest when promotion focus and promotion success were both high, thus showing that calm is related to motivational accord with goal outcome of one’s hopes, dreams, and aspirations. Daily anxiety was highest when someone was highly prevention focused and experienced low prevention success. This shows that high promotion focus can buffer against goal outcomes impacting emotion, but only for high arousal positive emotion (i.e., happiness), whereas low prevention focus buffers against goal outcomes impacting high and low arousal emotions (i.e., happiness, sadness, and anxiety).

I also examined the potential interplay between different regulatory focus strategies within the same day. Regulatory theory states that different emotions arise because of different goal outcomes under each focus, however my results showed that promotion focus and prevention focus interact within the same day to predict specific emotions, which suggests that promotion focus and prevention focus are not independent motivational system concerning daily emotional experience. Crossover interactions showed that happiness is
indeed a function of promotion and prevention focus interactions, with happiness being highest when someone was high in promotion focus and low in prevention focus. Daily happiness was lowest when someone was low in promotion focus and high in prevention focus. Thus, happiness relates to thinking mostly about your hopes, dreams and future rewards and giving little thought to your duties, obligations, and potential future losses. Crossover interactions also showed that high anxiety is mostly a function of high prevention focus, where promotion focus only reduces the negative effects of prevention focus when promotion focus is high and prevention focus is low. Overall, thinking a lot about your duties, obligations and potential losses contributes to increased daily negative emotion and decreased positive emotion.

7.2 Decomposing Regulatory Variables into Traits and Daily Fluctuations

Someone’s daily regulatory focus and success are a function of their trait levels of those variables and their daily fluctuations from their regulatory baselines. Importantly, both trait and daily fluctuations of regulatory focus and success were related to daily emotional experience. Surprisingly, very few of the predictions of regulatory focus theory were supported in these decompositions. Daily sadness was not related to either trait levels or daily fluctuations in promotion success. In fact, it was trait prevention success that predicted the least daily sadness, and trait prevention focus that predicted the most daily sadness. In other words, being a person who is generally successful in their duties, responsibilities, and obligations experienced less daily sadness, whereas being someone who generally thinks a lot about their duties, responsibilities, and obligations and future losses experienced the most daily sadness. Moreover, daily anxiety was highest for people with high trait-level prevention focus or when they were more prevention-focused than usual. Daily happiness was marginally related to having more promotion success than usual, but was most related to having higher promotion focus than usual and lower prevention focus than usual. Interestingly, daily happiness was not predicted by any regulatory trait-level variables, and was only related to daily fluctuations. This suggests that daily happiness is more influenced by local environmental factors than dispositional ones.
Lastly, as predicted by regulatory focus theory, daily calm was highest when someone was high in trait prevention success. Overall, the most consistent and robust findings were that daily emotion was influenced by one’s trait regulatory focus and fluctuations of regulatory focus delineated by valence. Specifically, these results support the idea that daily promotion focus fluctuations are related to increases in positive and decreases in negative daily emotion, whereas the prevention focus fluctuations are related to increases in negative and decreases in positive daily emotion. However, despite the aversive aspects of prevention focus, prevention success is related to more positive and less negative emotion than promotion success. This suggests that prevention success mitigates the aversive influences of the thought-based aspects of prevention pursuit.

Another possibility is that the positive emotions related to promotion focus and the negative emotions related to prevention focus serve to boost continued motivation under those foci. Past research has shown that actual or expected success (i.e., gain) serves to increase eagerness motivation, whereas expecting or experiencing failure (i.e., non-gain) actually decreases eagerness motivation of promotion focus (Idson et al., 2000). Similarly, actual or expected failure (i.e., loss) serves to increase vigilance motivation, whereas expecting or experiencing success (i.e., non-loss) actually decreases vigilance motivation. My analyses do not directly test the possibility that negative emotions under a prevention focus is adaptive for goal pursuit, or that positive emotions can hinder progress. Nor do my analyses test if positive emotions under a promotion focus reinforce motivation and negative emotions dampen goal pursuit. However, my data do demonstrate that promotion focus predicts more positive daily emotions and less daily negative emotions. and yesterday’s promotion focus influences both promotion and prevention focus levels the day next. Conversely, prevention focus predicts more daily negative emotions and less positive daily emotions as well as more daily prevention focus the next day. Thus, the adaptive utility of positive and negative emotions may depend upon one’s regulatory focus.

I expand further on these relationships by assessing regulatory interactions. Daily sadness was highest when someone was high in prevention focus, but having low daily prevention success. Likewise, daily happiness where it was lowest when someone was high in
prevention focus but low in success. It could be that happiness is low because it has demotivating effects on prevention focus, which is needed to sustain motivation especially on low prevention successful days.

Daily fluctuations of regulatory focus and success also interacted in predicting daily emotion experience. Specifically, daily sadness was highest on days where someone was more prevention focused than usual and less prevention successful than usual. However, being more prevention successful than usual eradicated the exacerbating effects prevention focus had on daily sadness. Daily happiness was also highest when someone was less prevention focused than usual irrespective of their level of prevention success. Thus, across numerous analyses, promotion focus proved to be a positive emotional predictor and buffered against goal outcomes, whereas prevention focus proved to be associated with more negative daily emotion and exacerbated negative emotion particularly on days with low goal success. Regulatory success in general can also serve as a buffer against the negative effects of prevention focus. Regulatory focus theory predicts that promotion and prevention focus are independent of valence, and the results here do not support this claim, particularly when assessing regulatory fluctuations from one’s average.

7.3 Predicting Regulatory Focus from Yesterday’s Focus and Success

I expand further on regulatory focus theory predictions in assessing day-to-day influences on regulatory strategy. I generally expected that if someone had a particularly regulatory (i.e., promotion or prevention) successful day yesterday then they would continue utilizing that regulatory focus due to that motivating success. Likewise, if someone had a low level of success yesterday, then they may be more likely to switch to a different regulatory focus. Interestingly, regulatory success on a given day was unrelated to regulatory focus on the following day. The only predictor of today’s regulatory focus was yesterday’s regulatory focus.

Both promotion focus and prevention focus yesterday had a general influence on promotion focus today. However, one’s prevention focus today was only predicted by their prevention focus yesterday. These patterns did not change when daily regulatory
focus and success were decomposed into one’s trait (i.e., the month’s average) and fluctuations (i.e., daily deviations from one’s monthly average). Only trait regulatory focus was related to daily regulatory focus for each focus. In other words, if someone generally thought a lot about their hopes, dreams, and aspirations, then they tended to do so on any given day. Similarly, if someone generally thought a lot about their duties, obligations, and responsibilities, then they also tended to do so on any given day.

These results make sense given that prevention focus is associated with being less willing to switch tasks, having more rigid thinking, and employing a narrow attentional focus, (Crowe & Higgins, 1997; Förster, Higgins, and Bianco, 2003; Baas, De Drew, & Nijstad, 2008; Van Dijk & Kluger, 2011). However, these results also showed that prevention focus fluctuations yesterday predicted more promotion focus on the next day. The process model of self-control depletion may explain why higher than usual prevention focus yesterday predicted more promotion focus on the subsequent day. It has been theorized that self-control is a limited resource and that continued exertion in inhibiting pre-potent or competing motivational responses takes its toll on self-control where people will eventually give in to the competing drive. A common example of depletion is someone who is dieting to lose weight and avoids the indulgence of their favourite foods. The two competing goals of losing weight and indulging in rewarding foods creates an opposition that is difficult to sustain in the long-term. Thus, increased self-restraint will eventually lose out over time due to limited resources (Baumeister et al., 2007).

However, the process model of self-control suggests that self-control is not a limited resource, but rather that at the proximate level, fatigue causes motivations to shift from “have-to” goals to “want-to” goals. “Have-to” tasks relate to one’s duties and obligations and “want-to” tasks relate to enjoyable and meaningful activities one wants to do (e.g., eat a piece of chocolate, connect with friends). The idea is that engaging in “have-to” tasks over time, especially at the expense of pleasurable tasks, results in abandoning “have-to” tasks in order to pursue “want-to” tasks. The crucial reason for this is not because the finitude of self-control as a resource has been depleted but that the goals have switched in the moment. Exerting sustained cognitive control in tasks is aversive (Botvinick, 2007) and people tend to avoid prolonged engagement in these kinds of tasks (Kool et al., 2010).
However, people will continue to exert mental effort if they are given incentives to do so although, over time, the incentives will need to increase according to the length of engagement or else they will pursue “want-to” tasks (Botvinick, 2007). Thus, efficient goal progress may require a balance between labor-intensive pursuits and leisure pursuits.

These results support the predictions of self-control depletion under a process model where sustained “have-to” tasks (i.e., prevention focus) over time will lead to a likelihood of adopting “want-to” tasks (i.e., promotion focus). It could be that higher than usual prevention focus is more cognitively tasking due to it involving vigilant attention (Higgins, 1997). Prevention focus is strongly related to more negative daily emotion and less positive emotion. Therefore, a switch to promotion focus could act as an adaptive shift to a more motivationally invigorating and appetitive state because promotion focus is related to more positive daily emotion and less negative daily emotion. It is important to keep in mind that prevention focus is not maladaptive per se, but rather sustained prevention focus may render promotion focus more appealing over time due to prevention focus being more demanding and potentially depleting cognitive resources. It could be that promotion focus serves as a rejuvenating motivational orientation due to its associations with increased positive emotion and decreased negative emotion. Therefore, being higher than usual in prevention focus yesterday could predict more promotion focus today because high prevention focus is depleting and promotion focus serves as a reprieve from prevention focus’s relations to increased negative emotion and decreased positive emotion.

7.4 Predicting Daily Emotion from Regulatory Decompositions and Personality

Surprisingly, personality factors were not uniquely related to emotional experience. This suggests that personality traits as measured by the big five factors do not explain daily emotion above and beyond daily regulatory focus variables. However, personality facets interacted with regulatory success and focus to predict daily emotion.

Daily anxiety was highest when someone was higher in prevention focus than usual and high in conscientiousness, suggesting that conscientiousness relates to anxiety in particular combination with high prevention focus. Conscientiousness also interacted with both trait
promotion and prevention success in differential ways to predict daily sadness. In both cases, high conscientiousness served as a buffer against influences of trait regulatory success on daily sadness. However, low conscientiousness in combination with high promotion success predicted the most daily sadness. On the other hand, low conscientiousness in combination with high prevention success predicted the least daily sadness. It is theoretically unclear as to why these differences occur for low conscientiousness and trait promotion and prevention success. It could be that trait promotion and prevention success manifest for different reasons that only low conscientiousness highlights. Conscientiousness relates to both promotion and prevention focus but in differential ways (Wallace & Chen, 2006). Promotion focus and conscientiousness relate to more productivity, but worse safety behaviours. Conversely, prevention focus and conscientiousness relate to less productivity, but more work safety behaviour. Thus, a unique relationship with daily sadness for conscientiousness and regulatory success combinations may reflect this association with safety versus productivity.

Happiness was not affected by promotion or prevention success fluctuations for low conscientiousness individuals, but for someone high in conscientiousness happiness was lowest if they experienced less promotion success than usual. The converse was seen when assessing the interplay between conscientiousness and prevention success. Specifically, daily happiness was not affected by prevention success fluctuations if someone was high in conscientiousness. However, daily happiness was highest for low conscientiousness individuals experiencing higher than usual prevention success on that day.

The results show that daily happiness was low only if someone is less promotion successful than usual and high in conscientiousness. However, daily happiness is not affected by lower than usual prevention success if that person is high in conscientiousness. It is only low conscientiousness in combination with more prevention success than usual who experience more daily happiness. It could be that prevention success for people who are not hardworking or responsible comes as a delightful surprise, which could increase daily happiness, whereas expecting such success because you are a responsible and committed person may attenuate the resultant happiness from goal success.
One important question arises from the present study’s examination of personality factors. It may be the case that individual conscientiousness results in a differential weighting of the importance of promotion versus prevention success. My data show generally that prevention success had a larger association with daily emotion than promotion success. Indeed, prevention goals are often seen as minimal goals that must be completed, whereas promotion goals are seen as maximal goals, things someone wishes for (Plutchik, 1980; Brendl & Higgins, 1996). Thus, prevention goals may be deemed as necessities that must be accomplished and conscientiousness may augment the importance of prevention goals over promotion goals.

Sadness was also related to regulatory focus and success at the trait and fluctuation levels, but daily happiness was only related to the daily fluctuations of regulatory focus and success. People high in conscientiousness have better resiliency in the face of setbacks by attenuating the effects of negative emotion (Javaras et al., 2012). However, they also show greater decrements in life satisfaction after job losses, especially if their unemployment has last several years (Boyce, Wood, & Brown, 2010). Therefore, conscientious people may exhibit greater emotion regulation and top-down control in the face of adversity, but they may also invest more heavily in the jobs they devote themselves to suggesting that their resiliency depends, in part, on their level of investment in the task at hand. The differential intensities of regulatory success in predicting emotion across levels of conscientiousness may reflect greater motivational investment, which has been shown to increase the affective components of goal outcomes (Weiner, 1986; Brockner & Higgins, 2001). Therefore, the negative effects of low promotion success are exacerbated if someone is high in conscientiousness, but they are attenuated if someone is low in conscientiousness.

Neuroticism is known to be associated with negative affect and emotional volatility and was expected to be associated with anxiety (McCrae & Costa, 1987). There is evidence that promotion focus is more related to extraversion and that prevention focus is more related to neuroticism (Cunningham, Farb, & Nezlek, 2005). Surprisingly, neuroticism did not interact with any regulatory variables to predict daily anxiety. Instead, there was an interaction between neuroticism and prevention focus fluctuations in predicting daily
sadness. Daily sadness was highest for people high in neuroticism and particularly for days that were higher than usual in prevention focus.

Interestingly, extraversion influenced the effects of promotion and prevention success fluctuations in similar ways. Someone who is high in extraversion is sociable, experiences more positive emotion, and is eager to engage in new experiences (Costa & McCrae, 1992; DeYoung et al., 2010). High extraversion seemed to buffer against the influence of promotion and prevention success fluctuations on daily anxiety and sadness respectively. Daily anxiety was lowest for low extraverted people who had more promotion successful days than usual, and daily sadness was lowest for low extraverted people who had more prevention successful days than usual. The assertiveness subscale was related to promotion success fluctuations in predicting daily anxiety, whereas the enthusiasm subscale was related to prevention success fluctuations in predicting daily sadness. Thus, people who were low in assertiveness and more promotion successful than usual saw decreased daily anxiety, and people who were low enthusiasm and more prevention successful than usual saw reduced daily sadness. One possible explanation for these decreases in negative daily emotion for people who are low in extraversion and more successful than usual is that these individuals may have low expectations and low positive emotion in general. Future research should aim to disentangle these relationships. In sum, personality contributes to emotional experience by titrating the influence of regulatory focus and success to predict daily emotional experience. The interplay between regulatory variables and personality dimensions allows for a more nuanced understanding in what determines daily emotional experience.

7.5 Predicting Regulatory Focus from Regulatory Decompositions and Personality

Regulatory focus has been shown to involve state- and trait-level determinants (Crowe & Higgins, 1997; Shah & Higgins, 2001). Of particular interest is how personality factors contribute to the relationship between regulatory success and focus at the trait and daily-fluctuation level.
The inclusion of personality variables did not alter the significance of the main effects of yesterday’s regulatory focus fluctuations predicting the next day’s focus. Specifically, the current day’s regulatory focus was most related to trait regulatory focus and yesterday’s level of regulatory focus fluctuations, with regulatory success playing little role. Trait promotion focus was related to more promotion focus on a given day, and trait prevention focus was related to more prevention focus on a given day. However, this strict correspondence between foci at the trait and day-level was not shown at the daily fluctuation level. Promotion focus on a given day seems to represent a general motivational continuity where both promotion and prevention focus fluctuations the day before influenced promotion focus today. Conversely, prevention focus on a given day seems to be uniquely related to yesterday’s prevention focus fluctuations, thus representing a continuity of specificity in the motivational framework. These results dovetail nicely with the research showing that promotion focus involves a more open and flexible strategy approach, whereas prevention focus is more narrowly focused and prefers safety over change (Forster & Higgins, 2005; Pennington & Roese, 2003; Vaughn, Baumann, & Klemann, 2007). Therefore, regulatory focus appears to have less to do with prior successes and more to do with whichever motivational framework that person prefers at the trait level and most recently employed at the day level.

The influence of personality dimensions showed that conscientiousness interacted with regulatory focus in differential ways. In predicting the current day’s promotion and prevention focus, yesterday’s prevention focus fluctuations and conscientiousness were important. Specifically, people with high conscientiousness and higher than usual prevention focus yesterday were highest in both promotion and prevention focus the next day. Whereas people with high conscientiousness and lower than usual prevention focus yesterday had the lowest levels of promotion and prevention focus the next day. The opposite pattern was shown when conscientiousness influenced yesterday’s promotion focus fluctuations. High conscientiousness and lower than usual promotion focus yesterday predicted more prevention focus today. The same level of prevention focus today was seen for people who were low in conscientiousness and experienced higher than usual promotion focus yesterday. These patterns suggest that conscientiousness
differentially influences either focus the day before and boosts their respective orientations on the following day.

The relationship between regulatory focus and conscientiousness is more complicated. Regulatory focus influences the effect of conscientiousness on certain behavioural outcomes. Specifically, promotion focus influenced the effect of conscientiousness in positively predicting work productivity and negatively predicting work safety performance (Wallace & Chen, 2006). Conversely, prevention focus influenced the effect of conscientiousness in negatively predicting production performance and positively predicting safety performance. Thus, showing that the effect of conscientiousness alone on behaviour may be inconsistent or weak if not considered along with regulatory focus orientations (Wallace & Chen, 2006). Indeed, the results here show that conscientiousness exerts different effects on promotion and prevention focus, but it is unclear how this impacts the behavioural level beyond emotional experience.

7.6 Limitations and Future Directions

7.6.1 Limitations

One potential limitation to consider with respect to interpreting the data from the present study is that experience sampling is an observational collection method. Causal relationships cannot be inferred from this dataset. It is obvious that many factors contribute to emotional experience in daily life, and brief questionnaires about motivational tendency cannot fully ascertain what causes daily emotional experience. End-of-day, retrospective assessments demonstrate accuracy compared to momentary assessments of affective experience (Feldman-Barrett, 1997; Dockray & Steptoe, 2010). However, more nuanced accounts of how regulatory focus and success are involved in daily affective experiences could be gleaned from these momentary assessments. Specifically, in the present study, because sampling was completed at the end of the day, an assessment of temporal precedence cannot be discerned between emotional experience and regulatory focus or success. Therefore, future research is needed to more fully
understand more fine-tuned temporal dynamics contributing to emotional experience and motivation orientation.

A common limitation in studies using undergraduate samples is the question of generalizability, particularly related to age, sex, and cultural aspects. My sample was predominantly female and comprised undergraduate students with a mean age of 19. Although no sex differences were found in my study, there may have been other factors related to group differences in regulatory focus and emotion. Specifically, past research showed that East Asian participants are higher in prevention focus and more persuaded by loss-framed information than participants of European descent who are more promotion focused and more persuaded by gain-framed information (Uskal, Sherman, & Fitzgibbon, 2009). East Asian cultures are collectivist and prioritize group concerns and impression management to increase social cohesion and harmony, whereas European cultures are more individualistic and prioritize independence, self-enhancement, and standing out from the crowd (Gudykunst, et al, 1996). These different social values relate to differences in regulatory focus where people from collectivist cultures tend to be higher in prevention focus and more sensitive to loss and negative self-information compared to people from individualist cultures who are higher in promotion focus and more sensitive to reward and positive self-information. (Lee, Aaker, & Gardner, 2000; Ouschan, et al., 2007; Lalwani, Shrum, & Chiu, 2009).

The present study did not include measures of sample demographic information about culture, therefore it is unclear is any of the reported results are being driven by cultural group differences in regulatory focus and possibly emotion. However, retrospective analyses in a pilot sample for the present study as well as another related sample did reveal that East Asian participants were significantly higher in trait prevention focus than participants of European descent. In these samples, trait regulatory focus was measured with the Self-Regulatory Focus Questionnaire (Cunningham, Raye, & Johnson, 2009). Specifically, East Asian participants strongly agreed with the items “I focus on ensuring that I will avoid potential mishaps or negative events”, and “I am primarily motivated by avoiding failure.” However, there were no significant differences in trait promotion focus between the two groups. In my sample, trait prevention focus and success were higher
than trait promotion focus and success. It is possible that East Asian participants could be
driving these higher prevention levels and also some of the effect on daily emotion.
Therefore, it is important that future studies on regulatory focus assess the cultural
influence of regulatory preferences between these groups.

Another issue that could be raised in this study did not explicitly assess regulatory failure.
The assumption is that low regulatory success or being less successful than usual is a
proxy for regulatory failure and, thus, would be associated with the predicted emotions.
However, it could be the case that a questionnaire explicitly assessing individuals’ daily
goal failure in addition to goal success may elicit differences in responding compared to
only assessing the magnitude of regulatory success. This may explain some of the
discrepancies between the emotion predictions of regulatory theory and what I observed in
the present study. However, it could also be the case regulatory theory predictions of
emotion only hold up in laboratory settings where explicit events that constitute failure
(e.g., task feedback) elicit the predicted emotions. Given that the results here show that
regulatory focus varies within days and from day-to-day, it is possible that one’s
regulatory focus rapidly shifts during the completion of a task. Therefore, it cannot be
assumed that the regulatory focus one adopts in the beginning of a task or under regulatory
priming conditions remains constant throughout the task, nor that success or failure are so
easily and explicitly measurable from moment-to-moment. Perhaps for adaptive goal
pursuit, one rapidly cycles through regulatory foci based on numerous environmental and
cognitive conditions (e.g., self-control fatigue). Future research should explore the time
scale fluctuations within smaller time frames to fully understand how regulatory focus and
success change over time and influence emotional experience.

Lastly, regulatory focus was assessed using items from the DES that mapped onto
promotion and prevention focus, but which may not fully capture all aspects of promotion
and prevention focus. Two commonly used questionnaires to assess regulatory focus are
the regulatory focus questionnaire (RFQ, Higgins et al., 2001) and the general regulatory
focus questionnaire (GRFQ; Lockwood, Jordan, & Kunda, 2002). The RFQ has been
shown to capture the self-guide aspect of regulatory focus theory where promotion focus
reflects the “ideal” self guide that reflects one’s personal, internal goals of their hopes,
dreams, and aspirations, whereas prevention focus reflects an “ought” self-guide that involves fulfilling socially imposed and internalized duties, obligations, and responsibilities that someone personally values (Summerville & Roese, 2008). The GRFM, on the other hand, was shown to be related to the reference-point definition of regulatory focus theory where promotion focus represents a “gain” reference point and organizes behavior toward matching gain situations and avoiding non-gain situations (Higgins, 1997; Summerville & Roese, 2008). Conversely, prevention focus represents a negative reference point of a “loss” and organizes behavior towards avoiding situations of loss and approaching situations of non-loss.

Summerville & Roese (2008) found that the GRFM mapped onto approach and avoidance measures, and also found that promotion and prevention focus mapped onto positive and negative affect respectively. However, regulatory focus theory claims affect independence and the RFQ shows this affect independence, thus reference point-based scales, such as the GRFM, may not adequately capture the orthogonal affect aspects of regulatory focus theory. The DES measure incorporates both self-guide (i.e., hopes, dreams, aspirations, and duties, responsibilities, and obligations) and reference point measures (i.e., rewards, successes, opportunities, and risks and failures). This may explain the lack of affect independence in my data that regulatory focus theory proposes and has been found in prior studies. Moreover, Summerville and Roese (2008) found that sensitivity to losses and non-losses was not associated with an ought-self guide and was actually associated with non-gains. It is important to note that promotion focus variables in these analyses did not involve sensitivity to non-gains, nor did prevention focus variables involve sensitivity to non-losses. Gains and losses were assessed in the regulatory focus items that comprised promotion and prevention variables. This poses a limitation to the current findings, which can be corrected in future studies using more nuanced scales.

7.6.2 Hope and Optimism

Another limitation of the current study relates to its inability to test all possible related affective constructs. Hope and optimism have been shown to shape and influence emotion, motivational strategy and relate to human well-being more broadly (Lazarus, 1999; Sharot,
Korn, & Dolan, 2012; Snyder, 2000). Both relate to positive biases about unknown future outcomes and are shown to be reliable dispositional facets (Magaletta & Oliver, 1999). As such, hope and optimism are dispositional factors that resemble promotion and prevention focus. It could be that high promotion focused people are just highly hopeful and optimistic people, whereas highly prevention focused people are highly un-hopeful and non-optimistic (i.e., pessimistic) people.

People who are high or low in dispositional hope are theorized to have different affective cognitive frameworks that bias the interpretation of goal progress (Snyder, Cheavens & Michael, 1999; Snyder, 2002). High-hope people often engage in self-encouragement (e.g., “I can succeed”) that reinforces beliefs about self-efficacy and successful, positive outcomes (Snyder, LaPointe, Crowson & Early, 1998). People high in hope may approach goals with more positive affective states because they focus on a belief of success, whereas person with low hope will approach goals with a negative affective state and focus more on possible failure. If you do not believe that your efforts will result in successful goal attainment, then sustained motivation for goal pursuit becomes extremely difficult. Additionally, hope offers resiliency in the face of adversity where high hope moderates stressful life events and protects well-being (Valle, Huebner, & Suldo, 2006) as well minimizing stress reactivity and allowing for quicker recovery from stressful situations (Ong, et al., 2006). A low-hope person may be sensitive to processing information related to goal barriers and have affective biases that result in negative interpretations of one’s ability and progress in goal acquisition. Low-hope people have negative emotional dispositions in general (Snyder, 2000).

Optimism and hope differ in their affective qualities, where hope is seen as a mix of positive affect and aversive uncertainty about future outcomes (Snyder, 2000). Additionally, hope differs from optimism in that hope involves positive future expectations that solely involve outcomes relating to the self, whereas optimism involves outcomes related to exogenous forces as well (Magaletta & Oliver, 1999). Optimists are more likely to overlook discrepant information, whereas pessimists tend to have biases toward discrepant information (Greers & Lassiter, 2002) where pessimists are better proofreaders than optimists (Spirrison & Gordy, 1993). Optimists will continue to hold
positive expectations despite discrepant information. Hope is a dispositional factor that shapes future expectations and interpretations in an enduring way. So too, do people show chronic motivational dispositions. Research has focused on motivational styles under the regulatory focus framework (Higgins, 1997) related to optimism and pessimism. It is easy to see the parallels between an optimistic outlook and a promotion focused motivational style and how pessimism is related to a prevention-focused style. Indeed, optimism fosters an approach-oriented outlook on goal pursuit and future outcomes. Positive biases about future outcomes are adaptive in that they protect our well being by allowing us to better cope with stress (Taylor & Armor, 1996).

However, not everyone adopts dispositional optimism about the future. Pessimism, the belief that negative outcomes are more likely to occur, is prevalent in the general population as well (Norem & Cantor, 1986). In some people, pessimistic thinking is more adaptive because adopting negative expectancies can buffer performance anxiety and uncertainty (Norem & Illingworth, 1993). Therefore, optimism and pessimism are dispositional outlooks that both confer differential benefits. Optimism reduces stress and nurtures approach persistence (Scheier & Carver, 1992) and pessimism reduces anxiety and helps to manage expectations (Norem & Illingworth, 1993).

Optimism and pessimism conceived in this way dovetails nicely with a regulatory focus framework where promotion focus involves approaching gains and avoiding non-gains and parallels with optimism, whereas prevention focus involves approaching security and non-loss as well as avoiding loss and maps onto pessimism (Hazlett, Molden, & Sackett, 2011; Higgins, 1997). Indeed, promotion-focused people have preferences and tendencies toward optimistic expectancies, whereas prevention-focused people show predilections toward pessimistic tendencies (Hazlett, Molden, & Sackett, 2011). People who are chronically promotion focused perform better when receiving success feedback, whereas chronically prevented-focused people perform better with failure feedback illustrating an adaptive element to preferred motivational foci (Idson & Higgins, 2000). This suggests that optimistic outlooks are not adaptive for prevention-focused people as it attenuates prevention motivation.
Interestingly, holding these valenced expectancy biases is more adaptive than having an accurate expectation of the future by fostering a motivational framework that best aligns with a person’s beliefs and values. Although optimism seems to nurture eager goal pursuit in line with promotion focus, optimism and chronic promotion focus do not entirely overlap (Grant & Higgins, 2003), suggesting that the influences of adopting motivational strategies are partially mediated by dispositional optimism and pessimism (Hazlett, Molden, & Sackett, 2011). Indeed, there are differences in what can be called promotion optimism, “I believe that I will be successful in achieving my hopes, dreams and aspirations.” And prevention optimism, “I believe I will be successful in fulfilling my duties, responsibilities, and obligations.” Grant & Higgins, (2003) called these regulatory beliefs promotion and prevention pride and showed that extant measures of optimism are adequate in capturing promotion regulation but not prevention regulation. Thus, future research should more fully explore the associations of regulatory focus with hope and optimism in understanding daily emotion.

7.7 Conclusion

Regulatory focus theory describes two independent motivational systems, promotion and prevention focus, that regulate behavioural strategies toward desired goals (Higgins, 1997; 1998). Promotion focus is a motivational orientation that sensitizes a person to the presence and absence of rewards. Promotion success and failure are experienced as happy and sad, respectively. Prevention focus prioritizes safety needs and fulfilling one’s duties, responsibilities, and obligations. Prevention success and failure are experienced as calm and anxiety, respectively. The present study is the first to assess the dynamics of regulatory focus and emotion in daily life with an experience sampling experiment. Participants completed a daily emotion experience survey every day for a month as well as a questionnaire about their regulatory focus and success each day. The Big Five Personality dimensions were also measured to fully understand individual differences in emotion at the trait- and day-level.

Results showed that promotion success was only consistently related to daily happiness as predicted by theory. Prevention success was related to more daily calm and less daily
anxiety as predicted, but also more happiness. Prevention success was also more strongly related to increased positive emotion and decreased negative emotion compared to promotion success. When taking into account regulatory focus rather than relying solely on regulatory success, promotion focus was consistently related to more positive emotions and less negative emotions, and prevention focus was consistently related to more negative emotions and less positive emotions. Thus, the thought-based aspects of prevention focus are more aversive compared to promotion focus, but prevention success mitigates these emotional effects by predicting more positive and less negative emotion following successful outcomes. The interplay of regulatory focus and success also showed that promotion focus buffered against the negative emotions associated with low goal success as well as boosted the positive emotions associated with high success. Prevention focus exacerbated the negative emotions of low goal success and attenuated the positive emotions associated with high success. Across all analyses, daily and fluctuation levels of promotion and prevention focus were the strongest explanatory factors influencing daily emotion. At the trait level, only prevention focus and prevention success was related to daily emotion. These results illustrate that regulatory success is not the best assessment of what influences daily emotional experience. Trait and day-level fluctuations of regulatory focus are most strongly associated with daily emotion.

Personality traits were shown to relate to regulatory variables in different ways. Conscientiousness sometimes served as a buffer against the negative effects of low goal success and high prevention focus, but it depended upon regulatory focus. Neuroticism was shown to relate to daily anxiety in people experiencing higher than usual prevention focus. High levels of extraversion buffered against goal success fluctuations in predicting daily anxiety and sadness. Thus, assessments of personality and motivational tendencies are needed in understanding how regulatory focus influences daily emotion at both trait- and day-level fluctuations.

Lastly, perhaps another unexpected finding within my dataset revealed that regulatory focus on a given day had little to do with goal success, but rather relies mainly on trait- and day-level fluctuations of yesterday’s focus. Promotion focus today was broadly related to yesterday’s focus, be it promotion or prevention, while prevention focus today was
uniquely predicted by prevention focus yesterday. Interestingly, it was only under high levels of conscientiousness and extraversion that yesterday’s prevention focus predicted today’s promotion focus. This suggests that highly extraverted and conscientious people may experience more motivational engagement, which, under a higher than usual prevention focus yesterday, may lead to more motivational depletion and thus more promotion focus on the subsequent day. This suggests that prevention focus may be employed in tandem with prevention focus, thus instead of abandoning one focus over the other, a more complementary dual orientation is employed. However, in predicting today’s prevention focus highly conscientious people who were also higher than usual in prevention focus yesterday showed a continued elevation in prevention focus the following day. Regulatory focus theory makes neither of these predictions, implicitly suggesting that regulatory success is all that matters. However, my data suggest that success matters little, and that focus and personality factors interact to produce a given day’s motivation orientation.

In conclusion, in understanding daily emotion under a regulatory framework, both regulatory focus and success must be segregated. Promotion and prevention focus are differentially related to positive and negative emotional experience and are also differentially related to varying levels of personality. Moreover, both trait and daily fluctuations levels of regulatory focus and success predict different emotional experiences. Finally, perhaps the most adaptive motivational orientation is a dual employment of both prevention and promotion focus according to one’s current motivational resources. Future research will need to examine these relationships further to fully understand the nuances of motivation and emotion in daily goal pursuit at different levels of analysis.
References


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Appendices

Appendix A

Daily Experiences Survey (DES)

1. How positive did you feel today?
   
   0 = not positive at all  100 = most positive possible

2. How negative did you feel today?
   
   0 = not negative at all  100 = most negative possible

For the following questions, indicate the number of times you experienced each emotion. Only use numbers between 0 and 10. If more than 10 enter 11.

3. Anger
4. Fear
5. Anxiety
6. Sadness
7. Happiness
8. Calm

For the following questions, indicate the intensity that you experienced each emotion.

0 = not intense at all and 100 being most intense possible.

9. Anger
10. Fear
11. Anxiety
12. Sadness
13. Happiness
14. Calm

Please answer the following questions based on your experiences today

0 = none of your time  100= all of your time

15. How much of the time did you spend seeking new opportunities?
16. How successful were you in these opportunities?
17. How much of the time did you think about your responsibilities, obligations, and duties?
18. How much of the time did you work on your responsibilities, obligations, and duties?
19. How successful were you in your responsibilities, obligations, and duties?
20. How much of the time did you think about your hopes, dreams, and aspirations?
21. How much of the time did you work on your hopes, dreams, and aspirations?
22. How successful were you in your hopes, dreams, and aspirations?
23. How much did you focus on potential rewards and successes?
24. How much did you focus on potential risks and failures?
## Appendix B

### Complete Tables

**Chapter 2**

Table 1. Means and standard deviations of trait and daily regulatory and personality variables.

<table>
<thead>
<tr>
<th></th>
<th>$M$</th>
<th>$SD$</th>
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<td>20.31</td>
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<tr>
<td>Trait Prevention Success</td>
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<td>Daily Prevention Focus</td>
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<td>22.43</td>
</tr>
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<td>Daily Promotion Success</td>
<td>32.68</td>
<td>26.61</td>
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<tr>
<td>Daily Prevention Success</td>
<td>50.13</td>
<td>28.53</td>
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<td>Neuroticism</td>
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<td>Extraversion</td>
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</tr>
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<td>Conscientiousness</td>
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<td>.26</td>
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</table>
Table 2. Bivariate correlation matrix of daily emotions, daily regulatory variables and relevant personality dimensions.

<table>
<thead>
<tr>
<th></th>
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<th>2</th>
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<th>10</th>
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<td>2. PrevFoc</td>
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<td></td>
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<td></td>
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<td></td>
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<tr>
<td>4. PrevSuc</td>
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<td>.52**</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sadness</td>
<td>-</td>
<td>.08**</td>
<td>-.02†</td>
<td>-.001†</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Anxiety</td>
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<td>.21**</td>
<td>.03†</td>
<td>-.03†</td>
<td>.23**</td>
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<td></td>
<td></td>
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<tr>
<td>7. Happiness</td>
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<td>.13**</td>
<td>-.08*</td>
<td>-.10**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Calm</td>
<td>.12**</td>
<td>.03†</td>
<td>.16**</td>
<td>.18**</td>
<td>-.08**</td>
<td>-.14**</td>
<td>.20**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Neuro</td>
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<td>.10**</td>
<td>-.13**</td>
<td>-.18**</td>
<td>.14**</td>
<td>.15**</td>
<td>-.12**</td>
<td>-.15**</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>10. Extra</td>
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<td>.15**</td>
<td>.02†</td>
<td>.14**</td>
<td>.01†</td>
<td>.09**</td>
<td>.03†</td>
<td>.07**</td>
<td>.25**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11. Consc</td>
<td>.06*</td>
<td>.17**</td>
<td>-.07**</td>
<td>.009†</td>
<td>.06**</td>
<td>.10**</td>
<td>-.08*</td>
<td>.12**</td>
<td>.17**</td>
<td>.36**</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. Neuro = Neuroticism, Extra = Extraversion, Consc = Conscientiousness, PromSuc = Promotion Success, PrevSuc = Prevention Success, PromFoc = Promotion Focus, PrevFoc = Prevention Focus, **p < .01, *p < .05, †p > .01

Table 3. A week depicting daily promotion focus and success levels.

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
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<tbody>
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<td>David</td>
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<td>3</td>
<td>2</td>
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<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Wallace</td>
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<td>8</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>
Chapter 3

Table 4. Model estimates, \( t \) values, and effect size \( r_s \) for daily promotion and prevention success from multilevel models predicting daily emotion.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Sadness</th>
<th>Happiness</th>
<th>Anxiety</th>
<th>Calm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
<td>( B )</td>
<td>( t ) (ES ( r ))</td>
<td>( B )</td>
<td>( t ) (ES ( r ))</td>
</tr>
<tr>
<td>Intercept</td>
<td>9.89</td>
<td>11.60**</td>
<td>3.07</td>
<td>28.05**</td>
</tr>
<tr>
<td>Promotion Success</td>
<td>-.04</td>
<td>-2.79**</td>
<td>(.07)</td>
<td>9.10**</td>
</tr>
<tr>
<td>Prevention Success</td>
<td>-.009</td>
<td>-.82</td>
<td>.03</td>
<td>2.03*</td>
</tr>
</tbody>
</table>

Note. **\( p < .01 \), *\( p < .05 \), †\( p < .1 \).

Table 5. Model estimates, \( t \) values, and effect size \( r_s \) for daily promotion and prevention focus from multilevel models predicting daily emotion.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Sadness</th>
<th>Happiness</th>
<th>Anxiety</th>
<th>Calm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
<td>( B )</td>
<td>( t ) (ES ( r ))</td>
<td>( B )</td>
<td>( t ) (ES ( r ))</td>
</tr>
<tr>
<td>Intercept</td>
<td>9.89</td>
<td>12.06**</td>
<td>30.71</td>
<td>26.86**</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>-.09</td>
<td>-5.28**</td>
<td>(.13)</td>
<td>.28</td>
</tr>
<tr>
<td>Prevention Focus</td>
<td>.08</td>
<td>5.29**</td>
<td>(.13)</td>
<td>-.12</td>
</tr>
</tbody>
</table>

Note. **\( p < .01 \), *\( p < .05 \), †\( p < .1 \).
Table 6. Model estimates, $t$ values, and effect size $r$s for daily promotion and prevention focus and success predicting daily emotion.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Sadness</th>
<th>Happiness</th>
<th>Anxiety</th>
<th>Calm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
<td>B (ES r)</td>
<td>B (ES r)</td>
<td>B (ES r)</td>
<td>B (ES r)</td>
</tr>
<tr>
<td>Intercept</td>
<td>9.89</td>
<td>12.08**</td>
<td>30.71</td>
<td>28.28**</td>
</tr>
<tr>
<td>Promotion Success</td>
<td>- .009</td>
<td>-.59</td>
<td>.07</td>
<td>3.31**</td>
</tr>
<tr>
<td>Prevention Success</td>
<td>-.03</td>
<td>-2.35*</td>
<td>(.06)</td>
<td>.05</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>- .08</td>
<td>-3.56**</td>
<td>(.09)</td>
<td>.22</td>
</tr>
<tr>
<td>Prevention Focus</td>
<td>.09</td>
<td>5.72**</td>
<td>(.14)</td>
<td>-.14</td>
</tr>
</tbody>
</table>

Note. **$p < .01$, *$p < .05$, †$p < .1$. 
Table 7. Model estimates, $t$ values, and effect size $r$s for daily promotion and prevention focus and success interacting within orientations predicting daily emotion.

<table>
<thead>
<tr>
<th>Fixed Effects</th>
<th>Sadness B (ES r)</th>
<th>Happiness B (ES r)</th>
<th>Anxiety B (ES r)</th>
<th>Calm B (ES r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.07 13.01**</td>
<td>3.07 27.19**</td>
<td>1.68 16.00**</td>
<td>2.69 17.99**</td>
</tr>
<tr>
<td>Promotion Success</td>
<td>-.009 -.53</td>
<td>.07 3.57** (.08)</td>
<td>-.02 -1.07</td>
<td>.05 2.39* (.06)</td>
</tr>
<tr>
<td>Prevention Success</td>
<td>-.03 -2.76** (.07)</td>
<td>.06 3.97** (.09)</td>
<td>-.04 -3.14** (.07)</td>
<td>.08 5.47** (.13)</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>-.06 -2.95** (.07)</td>
<td>.22 8.34** (.20)</td>
<td>-.07 -2.85** (.07)</td>
<td>.11 4.27** (.10)</td>
</tr>
<tr>
<td>Prevention Focus</td>
<td>.09 5.76** (.14)</td>
<td>-.14 -7.45** (.17)</td>
<td>.36 14.60** (.33)</td>
<td>-.12 -6.22** (.15)</td>
</tr>
<tr>
<td>PromSuc X PromFoc</td>
<td>-.001 -2.35* (.06)</td>
<td>-.001 -1.97* (.05)</td>
<td>-.001 -1.67† (.05)</td>
<td>.001 2.37* (.06)</td>
</tr>
<tr>
<td>PrevSuc X PrevFoc</td>
<td>-.001 -2.92** (.07)</td>
<td>-.001 3.48** (.08)</td>
<td>.002 -2.65** (.06)</td>
<td>.0004 .82</td>
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</tbody>
</table>

Table 8. Model estimates, t values, and effect size rs for daily promotion and prevention focus with crossover interactions predicting daily emotion.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Sadness</th>
<th>Happiness</th>
<th>Anxiety</th>
<th>Calm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (ES r)</td>
<td>B (ES r)</td>
<td>B (ES r)</td>
<td>B (ES r)</td>
</tr>
<tr>
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<td>1.05</td>
<td>26.62**</td>
<td>1.63</td>
<td>12.26**</td>
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<td>Promotion Success</td>
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<td>-.57</td>
<td>.06</td>
<td>2.74**</td>
</tr>
<tr>
<td>Prevention Success</td>
<td>-.02</td>
<td>-1.60</td>
<td>.06</td>
<td>3.33**</td>
</tr>
<tr>
<td>Promotion Focus</td>
<td>-.05</td>
<td>-2.11*</td>
<td>.02</td>
<td>7.62**</td>
</tr>
<tr>
<td>Prevention Focus</td>
<td>.11</td>
<td>5.64***</td>
<td>-.18</td>
<td>-7.86**</td>
</tr>
<tr>
<td>PromSuc X PromFoc</td>
<td>-.001</td>
<td>-1.26</td>
<td>-.001</td>
<td>-1.61</td>
</tr>
<tr>
<td>PrevSuc X PrevFoc</td>
<td>-.002</td>
<td>-3.25**</td>
<td>.002</td>
<td>3.49**</td>
</tr>
<tr>
<td>PromFoc X PrevFoc</td>
<td>.001</td>
<td>1.62</td>
<td>-.003</td>
<td>-2.65**</td>
</tr>
<tr>
<td>PromSuc X PrevSuc</td>
<td>.0004</td>
<td>.70</td>
<td>-0.001</td>
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</table>

Table 9. Model estimates, $t$ values, and effect size $rs$ for daily promotion and prevention focus and success trait and fluctuation variables predicting daily emotion.

<table>
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<tr>
<th>DVs</th>
<th>Sadness</th>
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<th>Happiness</th>
<th></th>
<th>Anxiety</th>
<th></th>
<th>Calm</th>
<th></th>
</tr>
</thead>
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<td>B</td>
<td>$t$ (ES r)</td>
<td>B</td>
<td>$t$ (ES r)</td>
<td>B</td>
<td>$t$ (ES r)</td>
</tr>
<tr>
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<td>5.34**</td>
<td>2.99</td>
<td>21.04**</td>
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<td>12.49**</td>
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<td>13.88**</td>
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<td>-2.15** (.26)</td>
<td>.14</td>
<td>1.48</td>
<td>-.12</td>
<td>-1.28</td>
<td>.28</td>
<td>2.29* (.23)</td>
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<td>-1.40</td>
<td>.11</td>
<td>.83</td>
<td>-.22</td>
<td>-1.82†</td>
<td>.17</td>
<td>.93</td>
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<td>.23</td>
<td>2.84** (.36)</td>
<td>-.11</td>
<td>-.93</td>
<td>.40</td>
<td>3.66** (.45)</td>
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<tr>
<td>Promotion Success Flucs</td>
<td>-.02</td>
<td>-1.16</td>
<td>.06</td>
<td>3.16** (.08)</td>
<td>-.03</td>
<td>-1.53</td>
<td>.05</td>
<td>2.48* (.06)</td>
</tr>
<tr>
<td>Prevention Success Flucs</td>
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<td>-2.67** (.06)</td>
<td>.05</td>
<td>3.42** (.08)</td>
<td>-.04</td>
<td>-2.89** (.07)</td>
<td>.08</td>
<td>5.29** (.13)</td>
</tr>
<tr>
<td>Promotion Focus Flucs</td>
<td>-.08</td>
<td>-3.57** (.09)</td>
<td>.22</td>
<td>8.29** (.20)</td>
<td>-.08</td>
<td>-3.17** (.08)</td>
<td>.12</td>
<td>4.51** (.11)</td>
</tr>
<tr>
<td>Prevention Focus Flucs</td>
<td>.07</td>
<td>4.58** (.11)</td>
<td>-.14</td>
<td>-7.12** (.17)</td>
<td>.26</td>
<td>13.86** (.32)</td>
<td>-.11</td>
<td>-5.93** (.14)</td>
</tr>
<tr>
<td>PromSuc X PromFoc Flucs</td>
<td>.0002</td>
<td>.33</td>
<td>-.002</td>
<td>-1.93†</td>
<td>.002</td>
<td>2.29* (.06)</td>
<td>-.0004</td>
<td>-.91</td>
</tr>
<tr>
<td>PrevSuc X PrevFoc Flucs</td>
<td>-.002</td>
<td>-4.13* (.10)</td>
<td>.002</td>
<td>3.09** (.07)</td>
<td>-.001</td>
<td>-1.84†</td>
<td>.001</td>
<td>1.83†</td>
</tr>
</tbody>
</table>

Chapter 4

Table 10. Model estimates, $t$ values, and effect size $r$s for yesterday’s promotion and prevention focus predicting daily regulatory focus.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Today’s Promotion Focus</th>
<th>Today’s Prevention Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
<td>B (ES r)</td>
<td>B (ES r)</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.47 20.56**</td>
<td>4.35 33.67**</td>
</tr>
<tr>
<td>Yesterday’s Promotion Success</td>
<td>-.01 -.55</td>
<td>.05 1.76†</td>
</tr>
<tr>
<td>Yesterday’s Prevention Success</td>
<td>-.002 -.13</td>
<td>.0003 .02</td>
</tr>
<tr>
<td>Yesterday’s Promotion Focus</td>
<td>.29 10.23** (.24)</td>
<td>.002 .05</td>
</tr>
<tr>
<td>Yesterday’s Prevention Focus</td>
<td>.07 3.24** (.08)</td>
<td>.36 14.33** (.32)</td>
</tr>
</tbody>
</table>

Note. **$p < .01$, *$p < .05$, †$p < .1$.}
Table 11. Model estimates, $t$ values, and effect size $r$s for trait and yesterday’s promotion and prevention focus fluctuations predicting daily regulatory focus.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Today’s Promotion Focus</th>
<th>Today’s Prevention Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
<td>B</td>
<td>$t$ (ES r)</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.49</td>
<td>113.90**</td>
</tr>
<tr>
<td>Trait Promotion Success</td>
<td>.001</td>
<td>.03</td>
</tr>
<tr>
<td>Trait Prevention Success</td>
<td>-.0002</td>
<td>-.0007</td>
</tr>
<tr>
<td>Trait Promotion Focus</td>
<td>1.00</td>
<td>28.62** (.56)</td>
</tr>
<tr>
<td>Trait Prevention Focus</td>
<td>-.004</td>
<td>-.12</td>
</tr>
<tr>
<td>Yesterday’s Promotion Success Fluctuations</td>
<td>-.02</td>
<td>-1.02</td>
</tr>
<tr>
<td>Yesterday’s Prevention Success Fluctuations</td>
<td>-.001</td>
<td>-.07</td>
</tr>
<tr>
<td>Yesterday’s Promotion Focus Fluctuations</td>
<td>.26</td>
<td>9.03** (.21)</td>
</tr>
<tr>
<td>Yesterday’s Prevention Focus Fluctuations</td>
<td>.02</td>
<td>3.44** (.08)</td>
</tr>
</tbody>
</table>

Note. **p < .01, *p < .05, †p < .1.
Chapter 5

Table 12. Bivariate correlation matrix of personality dimensions and trait regulatory focus and success variables.

<table>
<thead>
<tr>
<th></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. Conscientiousness</td>
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Note. **p < .01, *p < .05, †p < .1.

Table 13. Model estimates, t values, and effect size rs for trait and daily regulatory fluctuations from predicting daily emotion with conscientiousness as a covariate.
<table>
<thead>
<tr>
<th>DVs</th>
<th>Sadness</th>
<th>Happiness</th>
<th>Anxiety</th>
<th>Calm</th>
</tr>
</thead>
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<td>B (ES r)</td>
<td>B (ES r)</td>
<td>B (ES r)</td>
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<td>4.72</td>
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<td>.20 (.20)</td>
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<td>-.12 (-1.16)</td>
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<td>.14 (.99)</td>
<td>-.26 (-1.85)</td>
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<td>Trait Prevention Focus</td>
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<td>-.14 (-.96)</td>
<td>.33 (.33)</td>
<td>2.40* (.34)</td>
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<td>-.03 (-1.58)</td>
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<td>Prevention Success Flucs</td>
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<td>.05 (3.61)</td>
<td>-.04 (-2.69)</td>
<td>.08</td>
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<td>.22 (8.06)</td>
<td>-.08 (-3.08)</td>
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<td>-.14 (-7.18)</td>
<td>.25 (13.46)</td>
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**Note.** Consc = Conscientiousness, Flucs = Fluctuations. **p < .01, *p < .05, †p < .1.**
Table 13 (continued). Model estimates, $t$ values, and effect size $r_s$ for trait and daily regulatory fluctuations from predicting daily emotion with conscientiousness as a covariate.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Sadness</th>
<th>Happiness</th>
<th>Anxiety</th>
<th>Calm</th>
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</thead>
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<td>-.001</td>
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<td>-.002</td>
<td>-.001</td>
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<td>.002</td>
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<td>.002</td>
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<td>PrevFoc Flucs</td>
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<td>-.99</td>
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<td>.30</td>
<td>4.26**</td>
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<td>.63</td>
<td>.30</td>
<td>4.26**</td>
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<td>Consc X PromSuc</td>
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<td>.63</td>
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<tr>
<td>Flucs</td>
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<td>Flucs</td>
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<td>.05</td>
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<tr>
<td>Flucs</td>
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**Note.** Consc = Conscientiousness, PromSuc = Promotion Success, PrevSuc = Prevention Success, PromFoc = Promotion Focus, PrevFoc = Prevention Focus, Flucs = Fluctuations. **$p < .01$, *$p < .05$, †$p < .1$.**
Table 14. Model estimates, $t$ values, and effect size $r$s for trait and daily regulatory fluctuations from predicting daily emotion with neuroticism as a covariate.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Sadness</th>
<th>Happiness</th>
<th>Anxiety</th>
<th>Calm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Effects</strong></td>
<td><strong>B</strong> (ES r)</td>
<td><strong>t</strong> (ES r)</td>
<td><strong>B</strong> (ES r)</td>
<td><strong>t</strong> (ES r)</td>
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<tr>
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<td>10.63**</td>
<td>2.96</td>
<td>16.64**</td>
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<td>1.85†</td>
<td>-2.83</td>
<td>-.51</td>
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<td>2.15* (0.03)</td>
<td>.11 (0.03)</td>
<td>.89 (0.03)</td>
</tr>
<tr>
<td>Trait Prevention Success</td>
<td>-.14 (0.03)</td>
<td>-1.99† (0.03)</td>
<td>.15 (0.03)</td>
<td>1.42 (0.03)</td>
</tr>
<tr>
<td>Trait Promotion Focus</td>
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<td>-1.28 (0.03)</td>
<td>.06 (0.03)</td>
<td>.37 (0.03)</td>
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<td>Trait Prevention Focus</td>
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<td>2.14** (0.03)</td>
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<td>.06 (0.03)</td>
<td>2.71** (0.03)</td>
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<td>Prevention Success Flucs</td>
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<td>.05 (0.03)</td>
<td>3.31** (0.03)</td>
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<td>8.34** (0.03)</td>
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<td>4.45** (0.03)</td>
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<td>-7.17** (0.03)</td>
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**Note.** Neuro = Neuroticism, Flucs = Fluctuations, **p < .01, *p < .05, †p < .1. **

Table 14 (continued). Model estimates, $t$ values, and effect size $r$s for trait and daily regulatory fluctuations from predicting daily emotion with neuroticism as a covariate.
<table>
<thead>
<tr>
<th>DVs</th>
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<th>Calm</th>
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<td>PrevFoc X PrevSuc</td>
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Table 15. Model estimates, $t$ values, and effect size $r_s$ for trait and daily regulatory fluctuations from predicting daily emotion with extraversion as a covariate.

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<td>Focus Flucs</td>
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<td>(.16)</td>
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</tbody>
</table>

**Note.** Extra = Extraversion, Flucs = Fluctuations. **$p < .01$, *$p < .05$, †$p < .1$.\[0.5in\]

\[0.5in\]
Table 15 (continued). Model estimates, $t$ values, and effect size $r$s for trait and daily regulatory fluctuations from predicting daily emotion with extraversion as a covariate.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Sadness</th>
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<th></th>
<th>Anxiety</th>
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<td>$t$ (ES $r$)</td>
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<td>.60</td>
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<td>3.73** (.09)</td>
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<td>-.03</td>
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</tbody>
</table>

**Note.** Extra = Extraversion, PromSuc = Promotion Success, PrevSuc = Prevention Success, PromFoc = Promotion Focus, PrevFoc = Prevention Focus, Flucs = Fluctuations. **$p < .01$, *$p < .05$, †$p < .1$.  

Table 16. Model estimates, $t$ values, and effect size $rs$ for trait and yesterday’s promotion and prevention focus fluctuations predicting daily regulatory focus with conscientiousness as a covariate.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Today’s Promotion Focus</th>
<th>Today’s Prevention Focus</th>
</tr>
</thead>
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<td><strong>Fixed Effects</strong></td>
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<td>$t$ (ES $r$)</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.49</td>
<td>105.97**</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-.17</td>
<td>-.13</td>
</tr>
<tr>
<td>Trait Promotion Success</td>
<td>.002</td>
<td>.05</td>
</tr>
<tr>
<td>Trait Prevention Success</td>
<td>.0006</td>
<td>.02</td>
</tr>
<tr>
<td>Trait Promotion Focus</td>
<td>1.00</td>
<td>28.14** (.56)</td>
</tr>
<tr>
<td>Trait Prevention Focus</td>
<td>-.004</td>
<td>-.11</td>
</tr>
<tr>
<td>Yesterday’s Promotion Success Fluctuations</td>
<td>-.03</td>
<td>-1.30</td>
</tr>
<tr>
<td>Yesterday’s Prevention Success Fluctuations</td>
<td>-.002</td>
<td>-.14</td>
</tr>
<tr>
<td>Yesterday’s Promotion Focus Fluctuations</td>
<td>.28</td>
<td>9.35** (.22)</td>
</tr>
<tr>
<td>Yesterday’s Prevention Focus Fluctuations</td>
<td>.06</td>
<td>2.91** (.07)</td>
</tr>
<tr>
<td>Consc X Yesterday’s PromFoc Flucs</td>
<td>-.22</td>
<td>-2.09** (.07)</td>
</tr>
<tr>
<td>Consc X Yesterday’s PrevFoc Flucs</td>
<td>.22</td>
<td>2.89** (.06)</td>
</tr>
</tbody>
</table>

*Note.* Consc = Conscientiousness, PromFoc = Promotion Focus, PrevFoc = Prevention Focus, Fluc = Fluctuations. Regulatory success interactions were not significant. **$p < .01$, *$p < .05$, †$p < .1$. 
Table 17. Model estimates, \( t \) values, and effect size \( r_s \) for trait and yesterday’s promotion and prevention focus fluctuations predicting daily regulatory focus with neuroticism as a covariate.

<table>
<thead>
<tr>
<th>DVs</th>
<th>Today’s Promotion Focus</th>
<th>Today’s Prevention Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Effects</strong></td>
<td><strong>B</strong></td>
<td><strong>t</strong> (ES ( r_s ))</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.48</td>
<td>103.22**</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>.11</td>
<td>.10</td>
</tr>
<tr>
<td>Trait Promotion Success</td>
<td>.003</td>
<td>.08</td>
</tr>
<tr>
<td>Trait Prevention Success</td>
<td>-.001</td>
<td>-.04</td>
</tr>
<tr>
<td>Trait Promotion Focus</td>
<td>1.00</td>
<td>25.66** (.52)</td>
</tr>
<tr>
<td>Trait Prevention Focus</td>
<td>-.003</td>
<td>-.08</td>
</tr>
<tr>
<td>Yesterday’s Promotion Success Fluctuations</td>
<td>-.02</td>
<td>-.75</td>
</tr>
<tr>
<td>Yesterday’s Prevention Success Fluctuations</td>
<td>-.004</td>
<td>-.24</td>
</tr>
<tr>
<td>Yesterday’s Promotion Focus Fluctuations</td>
<td>.26</td>
<td>8.90** (.21)</td>
</tr>
<tr>
<td>Yesterday’s Prevention Focus Fluctuations</td>
<td>.07</td>
<td>3.42** (.08)</td>
</tr>
<tr>
<td>Neuro X Yesterday’s PrevFoc Fluc</td>
<td>-.09</td>
<td>-.98</td>
</tr>
<tr>
<td>Neuro X Yesterday’s PrevFoc Fluc</td>
<td>.12</td>
<td>1.74†</td>
</tr>
</tbody>
</table>

Note. Neuro = Neuroticism, PromFoc = Promotion Focus, PrevFoc = Prevention Focus, Fluc = Fluctuations Regulatory success interactions were not significant. **\( p < .01 \), *\( p < .05 \), †\( p < .1 \).
Table 18. Model estimates, $t$ values, and effect size $rs$ for trait and yesterday’s promotion and prevention focus fluctuations predicting daily regulatory focus with extraversion as a covariate.

<table>
<thead>
<tr>
<th>Fixed Effects</th>
<th>Today’s Promotion Focus</th>
<th>Today’s Prevention Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>t (ES r)</td>
<td>B</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.49</td>
<td>108.41**</td>
</tr>
<tr>
<td>Extraversion</td>
<td>-.19</td>
<td>-.11</td>
</tr>
<tr>
<td>Trait Promotion Success</td>
<td>-.0008</td>
<td>.03</td>
</tr>
<tr>
<td>Trait Prevention Success</td>
<td>.001</td>
<td>.04</td>
</tr>
<tr>
<td>Trait Promotion Focus</td>
<td>1.00</td>
<td>27.74** (.55)</td>
</tr>
<tr>
<td>Trait Prevention Focus</td>
<td>-.005</td>
<td>-.15</td>
</tr>
<tr>
<td>Yesterday’s Promotion Success Fluctuations</td>
<td>-.03</td>
<td>-1.18</td>
</tr>
<tr>
<td>Yesterday’s Prevention Success Fluctuations</td>
<td>-.004</td>
<td>-.26</td>
</tr>
<tr>
<td>Yesterday’s Promotion Focus Fluctuations</td>
<td>.27</td>
<td>9.17** (.21)</td>
</tr>
<tr>
<td>Yesterday’s Prevention Focus Fluctuations</td>
<td>.07</td>
<td>3.47** (.08)</td>
</tr>
<tr>
<td>Extra X Yesterday’s PromFoc Flucs</td>
<td>-.27</td>
<td>-1.75†</td>
</tr>
<tr>
<td>Extra X Yesterday’s PrevFoc Flucs</td>
<td>.24</td>
<td>2.11* (.05)</td>
</tr>
</tbody>
</table>

Note. Extra = Extraversion, PromFoc = Promotion Focus, PrevFoc = Prevention Focus, Fluc = Fluctuations Regulatory success interactions were not significant. **p < .01, *p < .05, †p < .1.