

# Regulatory Focus in the Life Story: Prevention and Promotion as Expressed in Three Layers of Personality

Erika M. Manczak, Claudia Zapata-Gietl, and Dan P. McAdams  
Northwestern University

Regulatory Focus Theory (Higgins, 1997) outlines the ways in which people attempt to achieve the presence of positive outcomes (promotion) or preserve the absence of negative outcomes (prevention), suggesting that individuals may differ in chronic orientations. The present work examines regulatory outlooks within a multilayered model of personality composed of dispositional traits, characteristic goals, and life stories (narrative identity). Foregrounding the concept of narrative identity, the current study investigates how narrative themes of prevention and promotion relate to regulatory focus as expressed in dispositional traits and characteristic goals and explores the relative contribution of each layer of personality to psychological well-being and physical health. The findings suggest that dispositional traits, personal goals, and life narratives cohere loosely around the central themes of prevention and promotion. Moreover, promotion focus across layers of personality was related to higher levels of self-reported quality of life, compared to prevention focus. Illustrating the incremental validity of different layers of personality, promotion focus in life stories independently predicted psychological health above and beyond promotion focus in dispositional traits.

**Keywords:** regulatory focus, narrative identity, personality coherence

Updating the traditional approach–avoidance dichotomy in the study of human motivation, Regulatory Focus Theory (RFT; Higgins, 1997) outlines the ways in which people enact goals and experience associated emotions related to attaining positive (promotion) or thwarting negative (prevention) outcomes. Within social psychology, RFT has organized a range of human behaviors across domains as diverse as economics (Galinsky, 2005), parenting (Keller, 2008), romantic relationships (Molden, Lucas, Finkel, Kumashiro, & Rusbult, 2009), and psychopathology (Strauman, McCrudden, & Jones, 2010). However, researchers have rarely related regulatory focus to taxonomies within the study of personality. The present work seeks to examine prevention and promotion within an integrative model of personality proposed by McAdams and Olson (2010; see also McAdams & Pals, 2006). The model suggests that personality is expressed across three layers within a person: in dispositional traits (such as those encompassed

within the Big Five framework), characteristic adaptations (such as personal goals and values), and integrative life stories (narrative identity). Foregrounding the perspective of narrative identity, the current work develops a procedure for assessing regulatory themes in the stories people tell about their lives (Layer 3 of personality) and then investigates how these themes relate to (a) dispositional traits (Layer 1) and personal goals (Layer 2) that track promotion and prevention tendencies and (b) important life outcomes such as psychological and physical health.

Like the older conception of approach–avoidance, RFT begins with the hedonic principle: People are assumed to act in ways aimed to maximize pleasure and minimize pain. But the theory adds that the pursuits of these contrasting goals are experienced in fundamentally different ways, each subsuming both approach and avoidance impulses. Promotion motivation attempts to move toward opportunities for reward and away from the absence of reward. For example, in approaching physical fitness, an individual with a promotion orientation might take up running to see if she could one day compete in a marathon, or in applying to colleges, might send applications to many “reach” schools in the unlikely chance of getting accepted to one. When making decisions, eagerness becomes the preferred detection strategy (Molden & Higgins, 2008) for identifying targets that might further the achievement of promotion goals, producing a tendency to experience “false positives” rather than missed opportunities (demonstrated in the previous example of applying to too many schools). Success at a promotion goal elicits feelings of pleasure, and failure results in sadness. Conversely, prevention motivation attempts to move away from the presence of a negative outcome and toward the preservation of its absence. A person who takes a prevention orientation to physical fitness might similarly try running but do so with the goal of preventing weight gain or preserving health or, in applying to colleges, might apply only to programs into which she

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Erika M. Manczak, Department of Psychology, Northwestern University; Claudia Zapata-Gietl, Human Development and Social Policy Program, Northwestern University; Dan P. McAdams, Department of Psychology, Northwestern University.

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Correspondence concerning this article should be addressed to Erika M. Manczak, Northwestern University, Department of Psychology, Swift Hall Suite 102, 2029 Sheridan Road, Evanston, IL 60208-0001. E-mail: emanczak@u.northwestern.edu

is very likely to be accepted. To this end, a vigilant strategy is utilized, often resulting in more missed rewards in service of preventing losses (e.g., the chance to attend a better school). Feelings of calmness occur when prevention goals are achieved, and anxiety arises when they are thwarted.

Importantly, promotion and prevention orientations are hypothesized to operate as both situational and chronic motivations. That is, one's tendency to pursue promotion or prevention goals can be shaped by the demands of the environment but can also exist as a more-or-less stable and persistent preference within an individual across time and situations. Research comparing effect sizes of chronic and induced motivations has suggested that they yield equivalent results (Lisjak, Molden, & Lee, 2012). Although emphasis within social psychology has often been placed on primed or induced motivations, the acknowledgment of consistent individual differences in regulatory focus suggests a natural intersection with personality psychology.

From the perspective of personality, one's orientation to promotion or prevention does not appear to be readily reducible to a single trait or disposition, such as, say, "extraversion" or "achievement goals." Instead, the dichotomy articulated in RFT may operate as an especially broad construct at multiple layers of personality functioning. McAdams and colleagues (e.g., McAdams & Olson, 2010; McAdams & Pals, 2006) have proposed a multilayer framework that conceives of personality as an individual's unique variation on the general evolutionary design for human nature, expressed as a developing configuration of dispositional traits, characteristic adaptations, and integrative life narratives complexly situated in culture.

According to the model, dispositional traits represent a foundational level of personality, manifest as those broad consistencies in behavior, thought, and feeling that provide a rough sketch of a person's overall style of relating to the world as a social *actor*. The most popular taxonomy for these traits is the Big Five dimensions of extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience, which track broad individual differences that reside at Layer 1 in personality (Digman, 1990). Research has shown that these broad tendencies are strongly driven by genetic differences between people and likely also by epigenetic factors and the complex history of Gene  $\times$  Environment interactions in a given individual's life (Krueger, Johnson, & Kling, 2006).

The second layer of personality speaks to the person as a motivated *agent*. It specifies those characteristic goals, values, and adaptations that express what individuals want and do not want in life, as well as how they operate to achieve what they want and avoid what they do not want in particular situations, with respect to particular social roles, and in the context of particular developmental periods in life. The goals, values, plans, and projects that make up Layer 2 in personality, often grouped together under the label of "characteristic adaptations," may be systematically related to the dispositional traits of Layer 1, but they are not reducible to those traits (Bauer & McAdams, 2004; McAdams & Pals, 2006). Characteristic adaptations, moreover, often appear to be more context-dependent than broad traits and more amenable to direct influence by family, peers, neighborhoods, schools, or communities (McCrae et al., 2000). Among the various ways characteristic adaptations may manifest, Little (1996) argued that personal goals, or personal action constructs, most clearly embody Layer 2 themes

by bridging both self- and environmentally focused forms of motivated action.

The third layer of personality captures the way in which a person is an autobiographical *author* of self. Beginning in late adolescence and early adulthood, individuals compose and internalize more-or-less coherent narratives of the self that aim to make sense of the past as it is reconstructed and the future as it is imagined (Habermas & Bluck, 2000). Life stories explain, in narrative form, how individuals believe they came to be and where their life may be going in the future. Their evolving life story, or narrative identity, represents an integrative project to unify the self in time (McLean, Pasupathi, & Pals, 2007). Moreover, life stories reveal the ways in which individuals find purpose and meaning in life experiences. Influenced by dispositional traits and characteristic goals and values, life stories also draw a good deal of their content and structure from cultural metaphors, images, and narratives—that is, from the variegated norms for life narration that prevail within a given culture during a particular historical period (Hammack, 2008; McAdams, 2013).

In the overall model set forth by McAdams and Olson (2010; see also McAdams, 1994, 1995), then, life stories layer over characteristic goals and values, which layer over dispositional traits. It is our proposal that regulatory focus may be expressed across all three layers of personality—as trait, goal, and story—and thereby may provide an especially illuminating framework for organizing the ways individuals tend to act and feel in the social world; what they want and fear as motivated agents; and how they understand their past, present, and future as narrators of the self.

The overall project reported here begins with the third layer of personality—identity as a life story—and consists of three primary foci: (1) to compare regulatory focus across Layers 3 and 1 of personality by developing a thematic coding system for assessing individual differences in promotion and prevention themes as they appear in narratives of important autobiographical episodes (i.e., as central motifs in key scenes of narrative identity) and then to compare these themes in narrative identity with the most widely accepted taxonomy of personality traits through Big Five self-report questionnaire measures; (2) to incorporate Layer 2 by examining promotion and prevention in personal life goals, assessing how these goals relate both to the themes expressed in narrative identity and self-report scores on dispositional traits as a consideration of the coherence of personality; and (3) to examine all three manifestations of regulatory focus—promotion and prevention at the levels of trait, goal, and story—as statistical predictors of psychological and physical well-being.

### Goal 1: Examine Stories and Traits

With respect to dispositional traits, personality psychology has a long tradition of studying things that appear similar to RFT. For example, trait-level orientation to gains versus losses has been explored through Gray's (1978) Reinforcement Sensitivity Theory (RST; see also Gray & McNaughton, 2008). RST asserts that organisms are equipped with neurological systems that govern the approach of rewards (the Behavioral Activation System [BAS]) and the avoidance of harm (the Behavioral Inhibition System [BIS]). Even though it was not originally proposed as a theory of personality, this framework has been used to posit that individual differences in personality emerge depending on the sensitivity and

dominance of each of these systems within a person (Carver & White, 1994). Although there is similarity between BIS/BAS and regulatory focus, Cunningham, Raye, and Johnson (2005) suggested that these theories are not redundant, insisting that “self-regulatory focus is a higher order motivational state that directs focus of attention and evaluation, which in turn direct behavior, including approach or avoidance behavior” (p. 203). Indeed, results from their functional magnetic resonance imaging research provide evidence of this interaction between motivation and cognition.

Currently, the Big Five trait taxonomy is the most popular approach to capturing dispositional traits. To that end, in our attempt to link personality psychology and RFT, it serves as the best bridge between traits and regulatory focus. As far as the taxonomy is concerned, promotion and prevention focus would appear to share conceptual ground with the traits of extraversion, neuroticism, and openness to experience. Working with Gray’s (1978) Reinforcement Sensitivity Theory, Smillie, Pickering, and Jackson (2006) contended that extraversion (E) best captures the personality features associated with approach motivations. Those high in E have greater orientation to opportunities and potentials for reward, much like promotion focus. Those low in E, by contrast, are more attuned to potential for punishment, similar to prevention focus. Indeed, a meta-analysis of four studies including self-reports of E and regulatory focus found that scores on extraversion were correlated with higher promotion and lower prevention scores (Gorman et al., 2012).

Neuroticism (N), too, might be expected to relate to regulatory focus through its overlap with prevention orientation, a relationship also demonstrated in Gorman et al.’s (2012) meta-analysis. Individuals high in N, like those with greater prevention orientation, experience frequent anxiety and employ vigilance to ward against perceived threats. In RST, anxiety is viewed to be a signal of threat, motivating the organism to withdraw from potential dangers in the environment and to remain especially wary and vigilant.

Finally openness to experience (O) may share conceptual space with regulatory focus. People high in O attempt to explore and understand their experiences, exhibiting intellectual curiosity, non-conformity, and a preference for novelty (Bates & Bales, 1984; McCrae, 1987). High openness and promotion focus privilege opportunities for personal growth and the pursuit of new experiences. People low in O, by contrast, prefer predictable and familiar experiences and are distrustful of change, echoing the caution conveyed in prevention focus. Consistent with this overlap, Vaughn, Baumann, and Klemann (2008) demonstrated that higher O was related to increased pursuit of promotion-related goals and reduced pursuit of prevention-related goals for participants’ ratings of both actual and imagined goals.

With respect to narrative identity, themes of prevention and promotion figure prominently in great stories from literature and from life. Stories track how personified characters formulate intentions and enact them over time, often in the face of environmental threats and social obstacles (Bruner, 1986). As a goal-directed agent, a story’s protagonist moves across a social and temporal landscape in an effort to attain positive and avoid negative outcomes, pursuing goals that promise rewards and herald growth and expansion on the one hand (promotion focus) and

aiming to minimize punishments and assure safety on the other (prevention focus).

In an initial effort to translate features of promotion and prevention to life narratives, McAdams, Hanek, and Dadabo (2013) examined themes of self-expansion (promotion) and self-control (prevention) in narrative accounts of autobiographical memories, and they related these themes to participants’ political orientations. They found that midlife adults who self-identified as strong political liberals tended to narrate important scenes in their lives in which they sought to explore, expand, articulate, discover, or fulfill the self. By contrast, those midlife adults who strongly identified as political conservatives tended to construct stories that featured self-regulation, emphasizing the protagonist’s efforts to control, tame, tamp down, or discipline the self. In addition, McAdams et al. found that themes of self-expansion (promotion) in life-narrative accounts were associated with high levels of trait O, whereas themes of self-control (prevention) were associated with low levels of O.

Building on McAdams et al. (2013), the current study aims to examine themes of promotion and prevention in life stories as they are expressed in two different discursive contexts—when talking about (1) the self and (2) the environment. The coding system employed by McAdams et al. focused on the first perspective. Narrators who see the self as something to be explored and/or fulfilled express a promotion-focused understanding of self, whereas those who describe the self as something to be controlled or disciplined reveal a prevention focus. In addition, the current study proposes a second thematic dimension for promotion and prevention, aimed at how narrators describe the environment and their action within it. If the environment is seen as an opportunity for positive reward, then narrators reveal a promotion focus. If, by contrast, the environment is seen as posing threats to be avoided, then they reveal a prevention focus. Therefore, the current procedure for coding life narratives provides a more comprehensive outlook than what was initially proposed by McAdams et al. in that it examines regulatory focus as oriented both inward (toward the self) and outward (toward the environment).

## Goal 2: Add Personal Goals and Assess Coherence of Personality Across Three Layers

The study of goals within personality psychology has commonly distinguished between those that focus on the attainment of positive outcomes and those concerned with the avoidance of negative ones. For example, Maslow’s (1968) distinction between deficiency needs and growth needs roughly anticipated prevention and promotion orientations. Moreover, Maslow suggested that certain kinds of deficiency-based needs, such as those related to safety, must be satisfied first, before the individual can successfully pursue promotion concerns captured in esteem needs and self-actualization needs. More recently, work by Elliot and Thrash (2002) has readily differentiated between approach and avoidance goals, using both questionnaires and coding of idiographic responses. They demonstrated that these goals cohered with trait-level approach and avoidance temperaments, which were composed of extraversion, positive emotionality, and BAS, on the one hand, and neuroticism, negative emotionality, and BIS, on the other. Although the approach/avoidance dichotomy does not perfectly match prevention/promotion as articulated in Regulatory

Focus Theory, the work of Elliot and Thrash nonetheless provides preliminary evidence that regulatory focus orientations may span multiple levels of personality.

With Goal 2, we added Layer 2 personality constructs—in particular, life goals—to the analysis of prevention and promotion orientations. Here, the second goal was to evaluate prevention and promotion in Layer 2 personality constructs—specifically, personal goals—and then relate them to prevention and promotion themes in life narrative (Layer 3 of personality) and dispositional traits (Layer 1). By examining these interconnections, we were thus able to assess the coherence of personality across different layers through the frame of RFT.

### Goal 3: Explore Regulatory Focus and Important Life Outcomes

The traditional framing of regulatory focus does not explicitly contend that either orientation—prevention or promotion—is generally superior to the other. Rather, these motivations are seen as equally important to successful living and respectively suited to different adaptational tasks. For example, research on satisfaction in long-term relationships has found that among married couples, perceived support for both promotion and prevention goals independently predict well-being (Molden et al., 2009). Moreover, Grant and Higgins (2003) demonstrated that both orientations affect quality of life. They found that pride in promotion achievements uniquely predicted optimism and self-reported well-being, and pride in prevention goals additionally and independently contributed to quality of life by predicting active coping and fewer depressive symptoms.

That said, overall promotion orientation has consistently been linked to more positive constructs, such as creativity, flexibility, self-esteem, and optimism, whereas prevention orientation has been related to more negative constructs, like reduced job satisfaction and negative affect (Gorman et al., 2012; Liberman, Molden, Idson, & Higgins, 2001). Theories of well-being tend to emphasize growth and individuals' ability to realize their potential: hallmarks of a promotion-focused orientation (e.g., Ryff, 1989). For these reasons, one might expect that individuals with a chronic promotion focus orientation toward life would have a higher quality of life than those with a pervasive prevention focus. Indeed, given that neuroticism is positively correlated with prevention focus and negatively correlated with well-being, regulatory focus in traits alone might predict these relationships.

Goal 3 directly tested the relation of prevention and promotion to well-being by comparing prevention/promotion orientations across layers of personality in the prediction of perceived psychological and physical health. Doing so additionally allowed for an investigation of the incremental validity of each layer of personality in the prediction of well-being by simultaneously comparing predictive contributions of traits, goals, and life stories to valued life outcomes.

### Method

The data for the present work came from 163 intensive case studies of midlife adults collected as part of a longitudinal study on adult personality development. Participants were interviewed individually for approximately 2–3 hr using the Life Story Interview

(McAdams, 2008), during which they were asked to describe five key autobiographical memories corresponding to a high point, a low point, a major turning point, a positive childhood experience, and a negative childhood experience. Participants also completed a series of self-report measures online prior to their interview, including information on demographic variables, dispositional personality traits, current personal goals, and psychological and physical health outcomes.

### Participants

A total of 163 individuals (64% female) who were between 55 and 57 years of age in 2009 or 2010 and living in the greater Chicago region were recruited for the project using flyers and other recruitment devices. Special effort was taken to recruit approximately half African American and half Caucasian American participants, which was reflected in the demographics of the final sample: 55% of participants described themselves as Caucasian, 43% as African American, 1% as Interracial, and 1% as "other." Household income ranged from under \$25,000 to more than \$300,000, with a median income of \$100,000–\$125,000. The majority of the sample was college educated, with 5% receiving a high school diploma, 24% attending some college, 24% graduating college, 42% having graduate education, and 5% listing "other" for highest educational attainment.

### Measures

**Dispositional traits.** Dispositional personality traits (Layer 1) were assessed using the NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992), a 60-item self-report measure of the Big Five traits. The NEO-FFI yields summary scores for extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. It has been shown to have robust temporal and internal reliability (G. Murray, Rawlings, Allen, & Trinder, 2003).

**Regulatory focus in the life story.** Following procedures used in many previous studies of life stories (McAdams et al., 2004), participants provided detailed accounts of five key scenes within their life narrative: (1) high point, (2) low point, (3) turning point, (4) positive childhood event, and (5) negative childhood event. A key scene was defined to participants as a discrete and specific experience that stands out as particularly meaningful or important. Participants were encouraged to describe the scene fully, with the interviewer occasionally posing questions for clarification or elaboration, telling what happened, who was involved, and what they were thinking and feeling. They were also asked to reflect on what the memory might say about who they are as a person. In responding, participants often wove together their descriptions of events and their reflections; thus, both elements were considered as a single unit in analyses. Interviews were audio-recorded and transcribed verbatim, yielding 163 richly detailed case studies, comprising well over 1,500 single-spaced pages of text for the five key scenes alone.

Each scene was coded by the first and third authors on two dimensions reflecting regulatory focus, blind to participants' demographics and self-report responses. Specifically, each scene was scored on a 5-point scale for the extent to which it reflected self- and environmentally focused manifestations of regulatory focus. Rather than lump together these two dimensions (self and envi-



ronment), we decided to examine what we believed would be two rather different perspectives on the prevention/promotion idea. In principle, it seems that taking, say, a promotion-focused perspective on the self (privileging the idea of exploring the self rather than controlling the self) is a very different idea from taking a promotion-focused perspective on the environment (seeing the world as full of reward opportunities rather than threats). By keeping the two dimensions separate, moreover, we were able to examine empirically the extent to which the two do indeed relate to each other. Therefore, if the scores for the two dimensions proved to be highly correlated to the point of redundancy, then one might conclude that the two indices should be collapsed into one. If they turned out to be completely unrelated to each other (or even negatively correlated), one might conclude that prevention/promotion is not a thematically cohesive construct at the level of life narratives or that its two components are perhaps alternative manifestations. We initially expected that the two dimensions might be positively correlated—but to a modest degree at best.

The first dimension assessed the participants' self-focused prevention/promotion orientation, anchored by the themes of self-control versus self-exploration (McAdams et al., 2013). Scenes that did not have a clear orientation or seemed irrelevant to either regulation or exploration received the middle score of 3. In order to move from the midpoint, the scene needed to contain clear examples of the story protagonist's attempting to protect, maintain, regulate, restrict, or manage the self or, alternately, explore, examine, fulfill, grow, or express the self. Thus, scenes were coded as 1 (*very strong self-control*), 2 (*somewhat strong self-control*), 3 (*neither predominantly self-control nor self-exploration*), 4 (*somewhat strong self-exploration*), 5 (*very strong self-exploration*). Examples are provided in Table 1. In this first dimension of

regulatory focus in life narratives, therefore, the internal self can be viewed as something to either control or encourage, evoking different motivational orientations.

The second dimension assessed the participants' outwardly focused prevention/promotion orientation, manifested through themes of behavioral avoidance and approach. As with the first coding procedure, a scene without a clear orientation or with a theme that was irrelevant to an approach/avoidance impulse was coded as a 3; the other anchors were 1 (*very strong avoidance*), 2 (*somewhat strong avoidance*), 4 (*somewhat strong approach*), and 5 (*very strong approach*). Examples are provided in Table 2. In order to score as avoidance-oriented, the scene needed to contain evidence of the protagonists' attempting to minimize threats or dangers in the environment by moving away from or avoiding negative situations (prevention focus). Approach-orientated scenes, on the other hand, contained evidence of the protagonists' actively engaging in opportunities for reward or enhancement in the environment (promotion focus). For both approach and avoidance themes, the scene needed to show evidence of the protagonists' actively moving toward or away from situations; merely being the recipient of positive or negative circumstances did not score on this dimension.

The two dimensions of regulatory focus in life narratives—self-control versus self-exploration and environmental avoidance (threat) versus environmental approach (opportunity)—were positively correlated with each other ( $r = .25, p < .001$ ), confirming that they are related but not redundant. For all planned analyses (save descriptive statistics), thematic codes were summed across the five scenes to yield an index of the participants' orientation to prevention or promotion concerns. Thus, interrater reliability was examined at the level of the participant, rather than the scene,

Table 1  
Examples of Memories Coded for Inwardly Focused Prevention and Promotion

Coding and dimension	Synopsis of memory	Example
1 ( <i>Very strong self-control</i> ), Prevention	Participant resisting the temptation to get revenge for being bullied	"This event occurred before my third birthday. There was a bully in the neighborhood. Her name was Phoebe; she was four. Phoebe always used to beat me up, and I hated her. One day I found myself walking through a kind of tunnel . . . and I ran into Phoebe's little sister, who was younger than me, and my first reaction was: I am going to hit her and beat her up just like Phoebe hit me and beat me up. When I moved towards doing that, <b>my little 2-3/4-year-old conscious [conscience] got a hold of me and said that wouldn't be right</b> . So for what seemed like an eternity I grappled over whether I could . . . exact my revenge on this littler girl. . . . But something inside of me told me that it was the wrong thing to do and that I was better than that. . . . I reflect back on that event as an event that represents integrity in doing the right thing— <b>not exacting physical revenge</b> on an innocent person, as much as I wanted to" (emphasis added).
5 ( <i>Very strong self-exploration</i> ), Promotion	Participant joining high school theater production and discovering musical talent	"I had been a very shy person growing up . . . but I had a very strong interest in music and that sort of thing. I tried out for a play . . . and particularly in my junior year, I started being offered the lead vocals in some of the high school plays. And it was unusual because usually those parts were offered to a senior. So for me that was quite a high point, because <b>I had kind of discovered a new part of myself and was coming out of my shell</b> , if you will" (emphasis added).

Table 2

*Examples of Memories Coded for Environmentally-Focused Prevention and Promotion*

Coding and dimension	Synopsis of memory	Example
1 ( <i>Very strong behavioral avoidance</i> ), Prevention	Being chased by a would-be mugger	"We got off of the bus and we were about a block, maybe less, from the building we lived in. This man was standing somewhere in the darkness. He began to follow us up the street, and my mother felt very uncomfortable . . . and <b>we started running</b> and screaming like [my mother] had told us to do. We followed her instructions and ran and screamed till we got to the building. . . . <b>She didn't allow us out of the house after this incident, and she was just so afraid</b> " (emphasis added).
5 ( <i>Very strong behavioral approach</i> ), Promotion	Climbing a mountain with a friend	We made it to the summit even when we didn't think we were going to make it, and it was just gorgeous up at the top. And it was clear and crisp, and we could see forever. . . . It was exhilarating. . . . It was one of those life experiences whereby, persisting, you work around it and you get to where you want to go. . . . <b>It's worth taking risks when there's something to be gained</b> , even if that thing you're trying to gain is pretty ephemeral" (emphasis added).

yielding acceptable reliability for both control/exploration and threat/opportunity dimensions (intraclass correlation [ICC] = .75 and .80, respectively). Disagreements were discussed in order to maintain coding fidelity, and final codes were determined by averaging the scores of the two coders. Additionally, a composite variable indexing overall prevention versus promotion was created by summing scores on the two dimensions. Although several previous studies of regulatory focus have conceptualized prevention and promotion as orthogonal dimensions, we used single coding dimensions for these reasons: (1) our interest was in one's *relative* orientation to promotion or prevention, (2) promotion and prevention have been shown to be negatively correlated, and (3) it would seem very difficult to act from both a promotion and prevention orientation simultaneously (D. C. Molden, personal communication, April 4, 2012). Moreover, our reading of many life-narrative scenes from the current study and previous studies revealed that narrators rarely manage to convey, say, both self-exploration and self-control in the same account. For these reasons, a single dimension proved to be the most appropriate index for the study's objectives.

**Personal goals.** As part of the battery of online self-report questionnaires completed prior to the life story interview, participants were asked to identify and briefly describe seven personal goals, strivings, tasks, or projects they were currently pursuing or "working on." Participants were instructed that these goals could be big or little, personal or social, as long as they were things they were currently attempting to achieve, improve, avoid, or change. Two coders, blind to identifying information, classified each of these goals as being prevention-focused, promotion-focused, or "other." Due to the brevity of many of the goal responses, more granular classification of self- versus environmentally focused prevention and promotion goals was not possible.

Goals were classified as being prevention focused if they contained explicit evidence of the participants' aiming to regulate the self or minimize threat in the environment in order to avoid negative outcomes. For example, one participant wished to "not lose too much ground in either physical health or financial status

as time passes," while another was focused on "getting my youngest child thru high school life without any trouble."

In contrast, goals were classified as being promotion focused if the participant demonstrated a wish to grow, develop, or explore the self or to approach new positive experiences or rewards. For example, one participant hoped to "continue to learn, especially through travel, about other people, cultures, and history," and another was working toward "keeping myself open to new social and intellectual opportunities."

It should be noted that the majority of goals did not contain clear evidence of being either promotion- or prevention-oriented and thus were coded "other." Given the wide range of possible personal goals and our wish to be conservative in coding only goals which very clearly articulated regulatory focus, this is not surprising. Further, this frequency of goals relating to a particular theme is consistent with previous research aimed at identifying thematic codes in goals (e.g., [Emmons, 1991](#)). Examples of goals coded as neither prevention nor promotion included "make more money," "exercise more," and "reconnect with relatives."

As was done with the narratives, regulatory focus in goals was calculated at the level of the participant by summing the total numbers of prevention-focused goals and promotion-focused goals, with ICCs between coders of .76 and .57, respectively. Disagreements were discussed in order to maintain coding fidelity, and final codes were determined by averaging the scores of the two coders. To be consistent with the bipolar index of regulatory focus at the level of life narratives, the standardized score for number of prevention goals was subtracted from the standardized number of promotion goals, thus indexing relative strength of promotion versus prevention focus.

**Quality of life measures.** Several self-report measures of psychological and physical health were completed as part of the online survey prior to the in-person interview and are described below.

**Depression symptomatology.** The Beck Depression Inventory (BDI; [Beck, Ward, Mendelson, Mock, & Erbaugh, 1961](#)) was used to assess depressive symptoms occurring during the past 2 weeks.

The BDI is a widely used self-report measure of depression symptoms and is appropriate for use within both psychiatric and non-psychiatric populations (Beck, Steer, & Garbin, 1988).

**Positive psychological health.** Two measures of positive psychological health were completed: the Psychological Well-Being (PWB; Ryff & Keyes, 1995) scale and the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). The PWB is composed of six subscales related to psychological well-being, including self-acceptance, environmental mastery, purpose in life, positive relations with other, personal growth, and autonomy. For the present study, only a total score was used. The SWLS similarly indexes positive psychological health but focuses more on global life satisfaction, that is, the appraisal of one's life as a whole. Both are widely used and have well-established reliability and validity.

**Physical health.** Perceptions of current physical health were examined through the 12-item Short-Form Health Survey (SF-12; Ware, Kosinski, & Keller, 1996), which asks respondents about health over the past 4 weeks. For example, participants are asked, "During the past four weeks, have you accomplished less than you would like as a result of your physical health?" and "During the last four weeks, how much of the time has your physical health or emotional problems interfered with your social activities like visiting with friends, relatives, etc.?" Due to a computer malfunction, the final item in the questionnaire was administered incorrectly and was thus dropped from the final score. Higher scores on this questionnaire indicate better perceived health.

**Quality of life.** Given that scores on the BDI, PWB, SWLS, and SF-12 questionnaires are considerably correlated ( $r$ s from .161 to .641,  $p$ s < .05), an exploratory factor analysis was conducted. Results suggested a single factor that accounted for 58% of the variance, with scales loading between .56 and .86. Thus, a composite variable labeled *quality of life* that summed the standardized scores on each (with BDI reverse-coded) was computed.

## Results

Data analysis proceeded in several steps. Preliminary analyses included examining descriptive statistics for the narrative coding dimensions and personal goals, as well as assessing differences in regulatory focus between types of narrative scenes using analysis of variance (ANOVA). Next, correlations between these narrative and goal codes with demographic variables were calculated. Following this, main analyses were conducted according to our three study goals: To address Goal 1, associations between narrative coding and the Big Five personality traits were explored using

Pearson correlations and regression analyses. For Goal 2, relations between goals and the other two layers of personality were similarly assessed using correlations and multiple regressions. Lastly, variables representing prevention and promotion focus in each of the three layers of personality were simultaneously entered into multiple regression analyses in the prediction of psychological and physical health outcomes, addressing Goal 3.

## Preliminary Analyses

With regard to regulatory focus in life narratives, although all subsequent analyses were performed by averaging scores on regulatory focus dimensions across scenes, we first wanted to survey how the themes operated within each type of memory. Such an analysis is of relevance to the growing number of researchers who examine psychological themes in life-narrative accounts. In this line of work, there is a growing realization that accounts of different kinds of scenes (say, life-story high points vs. early childhood memories) are typically very different, emphasizing different content themes and structural features (McAdams & McLean, 2013). In the current study, therefore, it is worth noting what kinds of life-narrative scenes are more likely to emphasize promotion and what kinds are more likely to emphasize prevention. Therefore, means and standard deviations for prevention/promotion are listed by scene in Table 3.

Preference for control versus exploration themes by scene were analyzed in a repeated-measure ANOVA, revealing no significant effect of scene,  $F(4, 145) = 2.37, p = ns$ . A repeated-measure ANOVA comparing levels of environmental threat versus opportunity themes by scene was significant, however,  $F(4, 145) = 57.70, p < .001$ . Pairwise comparisons revealed that high point scenes and positive childhood scenes contained significantly more opportunity themes than the other scenes but did not differ from each other. Additionally, low point scenes and negative childhood scenes contained significantly more avoidance themes than the other scenes but did not differ from each other. Lastly, a repeated-measures ANOVA was conducted comparing levels of overall prevention versus promotion themes by scene, revealing a significant effect by scene,  $F(4, 145) = 43.03, p < .001$ . Here, pairwise comparisons found that high point scenes scored higher on promotion than all other scenes, save for positive childhood scenes. In turn, positive childhood scenes were higher in promotion than low point and negative childhood scenes but did not significantly differ from turning points or high points. Negative childhood scenes and low points scored significantly more in the direction of prevention

Table 3  
*Means and Standard Deviations for Prevention/Promotion Dimensions per Scene*

Scene	Control/exploration		Threat/opportunity		Composite prevention/promotion	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
High point	2.88	0.80	3.31	0.58	6.32	0.94
Low point	2.90	0.43	2.66	0.54	5.56	0.74
Turning point	3.05	0.70	3.03	0.70	6.08	1.15
Positive childhood	3.00	0.31	3.23	0.50	6.24	0.61
Negative childhood	2.93	0.23	2.60	0.53	5.54	0.60

than the other scenes but did not differ significantly from each other.

With regard to regulatory focus in personal goals, on average, participants had significantly more prevention-focused goals ( $M = 1.37$ ,  $SD = 1.12$ ) than promotion-focused goals ( $M = 0.86$ ,  $SD = 1.03$ ),  $t(157) = 3.62$ ,  $p < .001$ , with a range of 0–5 for each dimension. Goals were correlated  $-0.33$  with each other ( $p < .001$ ), suggesting that having more promotion goals was associated with having fewer prevention goals, and vice versa.

Next, relationships between regulatory focus in goals and stories and demographic variables were explored. There were no significant correlations between narrative regulatory focus dimensions and either gender or race. Income was significantly related to scores of threat/opportunity ( $r = .19$ ,  $p < .05$ ) and to the composite variable of overall prevention/promotion ( $r = .20$ ,  $p < .05$ ). Additionally, education was related to control/exploration ( $r = .28$ ,  $p < .01$ ), threat/opportunity ( $r = .24$ ,  $p < .01$ ), and overall prevention/promotion ( $r = .326$ ,  $p < .01$ ). These relationships suggest that highly educated and more affluent participants tend to narrate their lives with greater focus placed on self-exploration and obtaining external rewards. Similarly, a significant association emerged between goals and education ( $r = .20$ ,  $p < .01$ ), such that individuals who achieved higher levels of education generated more promotion than prevention goals. However, there were no significant relations between overall regulatory focus in the goal composite and race, income, or gender.

### Goal 1: Stories and Traits

For the main analyses, associations between regulatory focus themes (Layer 3 of personality) and dispositional traits (Layer 1) were examined to test whether regulatory focus cohered across the two layers. Table 4 summarizes these analyses, presenting Pearson correlations between the narrative variables and traits, as well as results from multiple regression analyses in which each personality trait was regressed onto race, gender, income, education, and narrative dimensions.

The results of the correlational and multiple regression analyses reveal several distinct relationships between regulatory focus themes in the stories people tell about their lives and their dispositional personality traits. Specifically, individuals high in

neuroticism tended to narrate their lives in terms of greater emphasis on prevention themes, particularly experiences of avoiding threat in the environment. In contrast, those high in extraversion utilized more promotion themes overall, highlighting opportunities in the environment. Individuals high in openness to experience recalled their lives with greater stress placed on self-exploration, using more promotion themes overall. Unexpectedly, individuals high in conscientiousness placed emphasis on opportunities in their lives, perhaps through greater conscientiousness facilitating professional and interpersonal success, giving rise to further prospects. There were no significant relationships between trait agreeableness and themes of regulatory focus.

### Goal 2: Personal Goals and Coherence of Personality Across Three Layers

Relations of personal goals (situated within Layer 2 of personality) to dispositional traits (Layer 1) and life story themes (Layer 3 of personality) were examined using correlations and multiple regressions. Results are presented in Table 5. As can be seen, individuals who were high in neuroticism recounted more current goals aimed at regulating the self or minimizing threat. In contrast, those high in openness to experience described more goals aimed at self-exploration or obtaining rewards in the environment.

Furthermore, robust associations emerged between goals and narratives, such that individuals who narrated their lives with greater attention on promotion versus prevention themes (at the level of the self, the environment, and their composite) also described a greater current emphasis on promotion-focused goals than prevention-focused goals.

### Goal 3: Regulatory Focus and Important Life Outcomes

In order to compare the relative contributions of promotion/prevention at each layer of personality in the prediction of these valued life outcomes, we computed single scores for each layer. Life story regulatory focus was captured with the overall prevention/promotion variable. Goals were captured through the goal composite variable. As an index of regulatory focused

Table 4  
*Correlational and Multiple Regression Results for Relations Between Regulatory Focus Themes and Big Five Personality Variables Across Autobiographical Scenes*

Personality variable	Control/exploration		Threat/opportunity		Composite prevention/promotion	
	<i>r</i>	$\beta$	<i>r</i>	$\beta$	<i>r</i>	$\beta$
Neuroticism	-.15 <sup>†</sup>	-.16 <sup>†</sup>	-.43***	-.46***	-.37***	-.42***
Extraversion	.09	.09	.27***	.29***	.23**	.26**
Openness to experience	.26**	.20*	.08	.00	.21**	.12
Agreeableness	.08	.05	.11	.11	.12	.11
Conscientiousness	.11	.11	.20**	.23**	.20**	.23**

*Note.* For each set of findings, the first number is the Pearson correlation between the regulatory focus theme and the dispositional trait variable, and the second number is the standardized regression coefficient for the regulatory focus theme wherein each personality variable was regressed on gender, race, income, and education and the particular regulatory theme.

<sup>†</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .



Table 5

*Correlational and Multiple Regression Results for Relations Between Goals and Big Five Personality Variables and Life Narrative Themes*

Trait/narrative variable	Goal composite	
	<i>r</i>	$\beta$
Neuroticism	-.17*	-.18*
Extraversion	.10	.13
Openness to experience	.19*	.14 <sup>†</sup>
Agreeableness	-.07	-.05
Conscientiousness	.05	.08
Life narrative control/exploration	.25**	.21**
Life narrative threat/opportunity	.30**	.27**
Life narrative composite	.35**	.30**

*Note.* For each set of findings, the first number is the Pearson correlation between the goal composite dimension and the dispositional trait or life narrative variable, and the second number is the standardized regression coefficient for the goal dimension wherein each trait or life narrative variable was regressed on gender, race, income, and education and the particular goal dimension.

<sup>†</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

traits, standardized scores on extraversion, openness to experience, and reverse-scored neuroticism were summed. Across each layer, therefore, positive scores indicated greater promotion focus, and negative scores indicated greater prevention focus.

Preliminary Pearson correlations between each of the psychological and physical health variables are displayed in Table 6. Here, depressive symptoms, psychological well-being, satisfaction with life, and perceptions of physical health were all significantly associated with regulatory focus as expressed in traits and life stories. Regulatory focus in personal goals was significantly associated with perceived physical health and with depressive symptoms at a trend level but not with psychological well-being or satisfaction with life.

Next, the quality of life composite was regressed onto regulatory focus as expressed in traits, goals, and life stories. This allows for an examination of the relative independent contribution of each layer of personality in the prediction of valued life outcomes. It is possible, for example, that greater promotion focus in life stories is related to positive psychological variables solely by virtue of its association with traits. Results displayed in Table 7, however, suggest that this is not the case. Rather, trait and life story promotion focus made significant *independent* contributions to greater perceived quality of life.

To explore whether these relations were consistent across indicators of quality of life, each psychological and physical health variable was modeled separately (see Table 7). For Ryff's (1989) Psychological Well-Being, only traits were significant predictors. Traits similarly predicted perceived health; however, goals also independently contributed at the trend level. In the prediction of depressive symptoms and Satisfaction With Life Scale scores, the results echoed that of the composite, with regulatory focus in both traits and life stories significantly and independently contributing to the models.

## Discussion

The present work examined the intersection of Regulatory Focus Theory (RFT) with personality psychology, exploring promotion and prevention orientations across a multilayered model of personality composed of dispositional traits, life goals, and life stories. The results suggest that (1) the ideas of prevention and promotion cohere across the three layers of personality and (2) an emphasis on promotion focus, especially as revealed in traits and life narratives, tends to be associated with well-being.

Grounded in research on narrative identity, we first assessed the relative salience of prevention and promotion themes within the stories people tell about their lives, distinguishing between how individuals narrate features of autobiographical recollections pertaining to *themselves* and features pertaining to *their environments*. Using a newly developed coding system, we found that participants who narrated their lives in terms of personal growth and opportunity in the environment (promotion focus) were higher in trait-level extraversion and openness to experience, whereas those who described efforts to control the self and avoid harm in the environment (prevention focus) were higher in neuroticism.

Secondly, we examined how the full three-layer model of personality cohered around regulatory focus by adding in personal goals. The analysis revealed that individuals with more promotion-oriented goals told life stories with more promotion-focused themes, whereas individuals with more prevention-focused goals recounted prevention-focused life stories. The findings, therefore, show that episodic features of personality conveyed via recollections of the *past* (life stories) reflect themes that correspond to those expressed in features of personality that project into the *future* (personal goals). Moreover, higher trait neuroticism was linked to prevention goals, whereas higher trait openness to experience correlated with goals aimed at promotion-oriented endeavors.

Taken together, the findings demonstrate that an individual's chronic orientation to prevention or promotion may be viewed as an organizing force for personality that is expressed through multiple layers, suggesting that personality can cohere around central themes. Promotion focus in personality is expressed, therefore, through high scores on the traits of extraversion and openness to experience and low scores on neuroticism, through pursuing approach-oriented goals in daily life and through articulating life

Table 6

*Zero-Order Correlations Between Psychological and Physical Health Variables and Regulatory Focus in Layers of Personality*

Variable	2	3	4	5	6	7
1. BDI	-.64***	-.41***	-.45***	-.46***	-.14 <sup>†</sup>	-.30***
2. PWB	—	.46***	.32***	.63***	.09	.29***
3. SWLS	—	—	.16*	.33***	.00	.27***
4. SF-12	—	—	—	.30***	.24**	.26***
5. Traits	—	—	—	—	.22**	.38***
6. Goals	—	—	—	—	—	.35***
7. Life narrative	—	—	—	—	—	—

*Note.* BDI = Beck Depression Inventory; PWB = Psychological Well-Being; SWLS = Satisfaction With Life Scale; SF-12 = 12-item Short-Form Health Survey.

<sup>†</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 7  
Multiple Regression Analyses Modeling Psychological and Physical Health Variables by  
Regulatory Focus in Layers of Personality

Predictor variable	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	Sig	$\beta$	<i>t</i>	<i>p</i>
Model quality of life composite	.58	.34	25.54	.00			
Traits					<b>.49</b>	<b>6.71</b>	<b>.00</b>
Goals					-.03	-0.40	.69
Life narrative					<b>.19</b>	<b>2.55</b>	<b>.01</b>
Model BDI	.45	.20	12.60	.00			
Traits					<b>-.36</b>	<b>-4.44</b>	<b>.00</b>
Goals					.00	0.01	.99
Life narrative					<b>-.17</b>	<b>-2.06</b>	<b>.04</b>
Model PWB	.64	.40	33.25	.00			
Traits					<b>.62</b>	<b>8.90</b>	<b>.00</b>
Goals					-.09	-1.25	.22
Life narrative					.08	1.04	.30
Model SWLS	.42	.18	10.44	.00			
Traits					<b>.32</b>	<b>3.88</b>	<b>.00</b>
Goals					-.14	-1.77	.08
Life narrative					<b>.21</b>	<b>2.44</b>	<b>.02</b>
Model SF-12	.34	.12	6.61	.00			
Traits					<b>.19</b>	<b>2.28</b>	<b>.02</b>
Goals					.14	1.70	.09
Life narrative					.13	1.50	.14

Note. Significant independent predictors are presented in bold. Sig = significance; BDI = Beck Depression Inventory; PWB = Psychological Well-Being; SWLS = Satisfaction With Life Scale; SF-12 = 12-item Short-Form Health Survey.

stories that emphasize themes of self-exploration and the achievement of rewards in the environment. By contrast, prevention focus in personality is expressed through low scores on extraversion and openness to experience and high scores on neuroticism, through pursuing avoidance-oriented goals in daily life and through constructing life stories that emphasize themes of self-regulation and the avoidance of environmental threats. Indices of regulatory focus at all three layers of personality are positively associated with each other, but not so strongly associated as to suggest that they are redundant. Promotion and prevention thus express themselves in a variety of different ways in human personality and with respect to different levels of functioning.

Finally, examinations of the relative contributions of regulatory focus in each layer of personality for the prediction of psychological and physical health were conducted. The findings revealed that promotion focus in dispositional traits (Layer 1) significantly predicted better quality of life across all indices and that promotion-oriented themes in life stories (Layer 3) additionally contributed to overall quality of life and, specifically, to greater satisfaction with life and lower depressive symptomatology (although not to scores on Ryff's (1989) Psychological Well-Being scale or the perceived physical health, after controlling for goals and traits). This suggests that although prevention orientation certainly is necessary in the navigation of life's challenges, individuals who are able to broadly orient toward approaching opportunities and self-growth show better overall well-being. Therefore constructing a life story that emphasizes promotion (vs. prevention) themes is associated with better quality of life even beyond regulatory focus expressed in dispositional traits (specifically, low neuroticism, high extraversion, and high openness to experience). This is in keeping with previous research suggesting that the narratives people internalize and tell about their lives influence

how they perceive their world and impact psychological functioning (Bauer & McAdams, 2004; King, Scollon, Ramsey, & Williams, 2000; McAdams, 2001; McAdams & Manczak, in press.). Given the robust associations between personality traits and psychological health (e.g., Caspi & Shiner, 2005), this finding highlights the incremental validity of examining a multilayer model of personality in the consideration of important life outcomes.

Although greater promotion focus in personal goals was significantly related to better perceived health and marginally related to lower depressive symptom scores in zero-order correlations, once entered into a multiple regression with regulatory focus in traits and life stories, these associations diminished to trend level and nonsignificance, respectively. It may be that because goals were often described very briefly, our ability to accurately capture whether the participant was taking a promotion or prevention stance was compromised. In contrast, the stories participants told about their life experiences were highly detailed, which likely facilitated greater coding validity. Moreover, many of the goals provided were fairly stereotyped, such as "losing five pounds" or "pursuing a hobby." They were also primarily concerned with immediate tasks facing the participant, whereas life stories and traits drew on past behavior over long periods of time. For these reasons, responses to current life goals may be less indicative of stable individual differences and instead more closely linked to contextual variables like cultural norms or current situations.

The results of the analysis for well-being also suggest that, across many indicators of quality of life, being promotion-focused is associated with better psychological and physical health. Traditional conceptualizations of RFT, however, do not assert that promotion focus should necessarily be a better orientation. Instead, both promotion and prevention are required for daily living, and good and bad outcomes are held to stem from the nature of

regulatory fit rather than the regulatory orientation, per se (Higgins, 2000). That is, it is the complement between regulatory strategy and goal (or the match between the person and environmental demands) that determines whether a regulatory outlook is adaptive. Furthermore, failures to meet either promotion or prevention goals are believed to lead to equally undesirable outcomes—depression for promotion/ideal-self failures and anxiety for prevention/ought-self failures (Strauman et al., 2010).

In contrast, our results suggest that greater chronic promotion focus is associated with better psychological and physical health. Individuals with growth-focused, approach-based personality characteristics appear to be better off than those who are concerned with avoiding negative occurrences. There are several potential explanations for this finding. One possibility is that our level of analysis obscures regulatory fit. When examining regulatory fit, it is critical to understand the context in which the strategy is being enacted. That is, as prevention and promotion operate in any given situation (at the microlevel), strategy fit is likely to govern moment-to-moment well-being and happiness. However, by definition, chronic regulatory focus transcends environmental constraints. Thus, when exploring regulatory focus from a more macro, reflective stance (such as surveying one's overall life or reporting on one's overall personality), regulatory fit is likely to be less salient. Rather, the broad propensity to orient toward positive or negative stimuli may override momentary associations with quality of life indicators.

It is also possible that one's orientation to promotion or prevention is not simply a matter of preference but rather, for most people, is hierarchically constrained, mirroring taxonomies proposed by other researchers of goals and motivation. For example, Maslow (1943) suggested that one needs to satisfy safety motivations before it is possible to address growth goals. Similarly, within parent-child attachment research, children's ability to explore their environment presupposes a secure base to which they can return (Bowlby, 1988). The same may be true for broader regulatory orientations across the life span. Those still struggling to achieve prevention (safety) needs may not have the psychological or physical resources available to move on to promotion (growth) goals.

The present work demonstrates that Regulatory Focus Theory is a fundamental organizing principle of human behavior that can bring together diverse approaches to studying the psychological experiences of individuals while providing a window into personality coherence. Historically, personality psychologists have struggled to demonstrate both (1) *consistency* in behavior across situations and over time and (2) the psychological *coherence* of individual lives (Barenbaum & Winter, 2008; McAdams, 1997). The first challenge consumed a great deal of energy in the 1970s and 1980s as psychologists engaged in a protracted debate regarding the relative efficacy of "traits" versus "situations" in the prediction of behavior (Kenrick & Funder, 1988). The very validity of the trait concept in personality psychology has always depended on the demonstration of some degree of temporal and cross-situational consistency in behavior (Epstein, 1979) and on the related idea that individual differences in personality constructs, such as dispositional traits, can predict such behavior (Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007).

The challenge of coherence, by contrast, concerns the extent to which personality structure and function can be shown to demonstrate a meaningful internal patterning that organizes an individual life (Block, 1981; H. A. Murray, 1938). The different

ways that personality psychologists have addressed the issue of coherence include undertaking biographical studies of individual persons (Schultz, 2005); proposing structural (York & John, 1992) and developmental (Loevinger, 1976) typologies that integrate multiple personality dimensions; and delineating various conditional, ipsative, intraindividual, and idiographic procedures that aim to articulate the dynamics of personality in individual lives (e.g., Fleeson, 2001; Mischel & Shoda, 1995; Mroczek, Almeida, Spiro, & Pafford, 2006). The current study suggests an alternative approach, showing how cross-cutting themes in personality—in this case, prevention versus promotion—can integrate multiple dimensions of personality expression. The approach is not as tight as a typology or as in-depth as the biographical study of the individual case, but it does demonstrate that different constructs of personality, measured in very different ways and conceived as different layers of personality functioning, may be loosely integrated around broad psychological themes.

Even though regulatory focus is reflected at each of the three layers of personality, the empirical relations are not so strong as to suggest that the three layers are redundant. Narratives cannot be reduced to goals, which cannot be reduced to traits. As the results regarding quality of life highlight, moreover, life narratives provide unique predictive information beyond self-reported dispositional traits. To view chronic regulatory outlook, therefore, as monolithic is overly simplistic. Rather than deeming individuals "promotion" or "prevention" types, it is important to consider their regulatory orientation at each of the three layers of personality in order to draw the most nuanced and accurate understanding of them.

There are several limitations to acknowledge concerning the research reported here. First, the directions of causality in associations with quality of life are unclear. It may be that individuals have equivalent objective experiences but that regulatory outlooks change their subjective experiences (with consequences for psychological and physical health). Indeed, research on stress has commonly found that it is perceived—and not objective—stress that matters most for psychosocial outcomes (e.g., Cohen, Kamarck, & Mermelstein, 1983; Lazarus & Folkman, 1984). On the other hand, it is possible that individuals with worse physical and mental health are so focused on eliminating the presence of negative outcomes (i.e., prevention focused) that they have little room for promotion goals and growth stories. For example, an individual in great physical pain may be caught up in the wish to avoid that pain and thus unable to devote resources to self-exploration and seeking positive opportunities. Given the design of the present study, it is impossible to determine the direction or structure of these associations to quality of life.

Additionally, the study did not contain previously validated measures of regulatory focus, such as the Regulatory Focus Questionnaire (Higgins, Friedman, & Harlow, 2001) or implicit measures of ideal/ought strength. Rather, we selected a broader measure of chronic individual differences, the Big Five dispositional traits, because they represent the most popular taxonomy within personality psychology. Although our coding guidelines attempted to closely mirror the theory upon which regulatory focus is built, it is not possible to gauge how similar coding scores are to self-reported prevention and promotion.

Lastly, the sample was composed of midlife American adults. We believe that using a midlife sample is especially conducive to studying life stories, as they have lived long enough to have coherent and full-bodied stories to tell and are therefore likely to show broad variation on prevention and promotion. At the same time, however, it is possible that associations between and with personality layers may not generalize to other developmental periods or other cultures. Future work should address this issue.

Despite these potential limitations, the current work is the first of its kind to investigate regulatory focus in a multilayer theory of personality. In the last two decades, regulatory focus theory has emerged as a broad and integrative way to organize an array of human behaviors and motivations. However, it has been largely ignored by personality psychology. The present work, therefore, bridges different research traditions in social and personality psychology, enhancing our understanding of both chronic regulatory outlooks and personality itself.

## References

- Barenbaum, N. B., & Winter, D. G. (2008). History of modern personality theory and research. In O. P. John & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 3–26). New York, NY: Guilford Press.
- Bates, J., & Bales, K. (1984). Objective and subjective components in mothers' perceptions of their children from age 6 months to 3 years. *Merrill-Palmer Quarterly*, 30, 111–130.
- Bauer, J. J., & McAdams, D. P. (2004). Growth goals, maturity, and well-being. *Developmental Psychology*, 40, 114–127. doi:10.1037/0012-1649.40.1.114
- Beck, A. T., Steer, R., & Garbin, M. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, 8, 77–100. doi:10.1016/0272-7358(88)90050-5
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561–571. doi:10.1001/archpsyc.1961.01710120031004
- Block, J. (1981). Some enduring and consequential structures of personality. In A. I. Rabin, J. Aronoff, A. M. Barclay, & R. A. Zucker (Eds.), *Further explorations in personality* (pp. 27–43). New York, NY: Wiley.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. London, England: Routledge.
- Bruner, J. S. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Carver, C., & White, T. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology*, 67, 319–333. doi:10.1037/0022-3514.67.2.319
- Caspi, A., & Shiner, R. L. (2005). Personality development: Stability and change. *Annual Review of Psychology*, 56, 453–484. doi:10.1146/annurev.psych.55.090902.141913
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396. doi:10.2307/2136404
- Costa, P., & McCrae, R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.
- Cunningham, W. A., Raye, C. L., & Johnson, M. K. (2005). Neural correlates of evaluation associated with promotion and prevention regulatory focus. *Cognitive, Affective, & Behavioral Neuroscience*, 5, 202–211. doi:10.3758/CABN.5.2.202
- Diener, E., Emmons, R. A., Larsen, R., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49, 71–75. doi:10.1207/s15327752jpa4901\_13
- Digman, J. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, 41, 417–440. doi:10.1146/annurev.ps.41.020190.002221
- Elliot, A. J., & Thrash, T. M. (2002). Approach-avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology*, 82, 804–818. doi:10.1037/0022-3514.82.5.804
- Emmons, R. A. (1991). Personal strivings, daily life events, and psychological and physical well-being. *Journal of Personality*, 59, 453–472. doi:10.1111/j.1467-6494.1991.tb00256.x
- Epstein, S. (1979). The stability of behavior: I. On predicting most of the people much of the time. *Journal of Personality and Social Psychology*, 37, 1097–1126. doi:10.1037/0022-3514.37.7.1097
- Fleeson, W. (2001). Toward a structure- and process-integrated view of personality: Traits as density distributions of states. *Journal of Personality and Social Psychology*, 80, 1011–1027. doi:10.1037/0022-3514.80.6.1011
- Galinsky, A. D. (2005). Regulatory focus at the bargaining table: Promoting distributive and integrative success. *Personality and Social Psychology Bulletin*, 31, 1087–1098. doi:10.1177/0146167205276429
- Gorman, C. A., Meriac, J. P., Overstreet, B. L., Apodaca, S., McIntyre, A. L., Park, P., & Godbey, J. N. (2012). A meta-analysis of the regulatory focus nomological network: Work-related antecedents and consequences. *Journal of Vocational Behavior*, 80(1), 160–172. doi:10.1016/j.jvb.2011.07.005
- Grant, H., & Higgins, E. T. (2003). Optimism, promotion pride, and prevention pride as predictors of quality of life. *Personality and Social Psychology Bulletin*, 29, 1521–1532. doi:10.1177/0146167203256919
- Gray, J. A. (1978). The neuropsychology of anxiety. *British Journal of Psychology*, 69, 417–434. doi:10.1111/j.2044-8295.1978.tb02118.x
- Gray, J., & McNaughton, N. (2008). *The neuropsychology of anxiety: An enquiry into the function of the septo-hippocampal system*. New York, NY: Oxford University Press.
- Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin*, 126, 748–769. doi:10.1037/0033-2909.126.5.748
- Hammack, P. L. (2008). Narrative and the cultural psychology of identity. *Personality and Social Psychology Review*, 12, 222–247. doi:10.1177/1088868308316892
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280–1300. doi:10.1037/0003-066X.52.12.1280
- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist*, 55, 1217–1230. doi:10.1037/0003-066X.55.11.1217
- Higgins, E. T., Friedman, R., & Harlow, R. (2001). Achievement orientations from subjective histories of success: Promotion pride versus prevention pride. *European Journal of Social Psychology*, 31, 3–23. doi:10.1002/ejsp.27
- Keller, J. (2008). On the development of regulatory focus: The role of parenting styles. *European Journal of Social Psychology*, 38, 354–364. doi:10.1002/ejsp.460
- Kenrick, D. T., & Funder, D. C. (1988). Profiting from controversy: Lessons from the person-situation debate. *American Psychologist*, 43, 23–34. doi:10.1037/0003-066X.43.1.23
- King, L. A., Scollon, C. K., Ramsey, C., & Williams, T. (2000). Stories of life transition: Subjective well-being and ego development in parents of children with Down syndrome. *Journal of Research in Personality*, 34, 509–536. doi:10.1006/jrpe.2000.2285
- Krueger, R. F., Johnson, W., & Kling, K. C. (2006). Behavior genetics and personality development. In D. Mroczek & T. Little (Eds.), *Handbook of personality development* (pp. 81–108). Mahwah, NJ: Erlbaum.



- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Liberman, N., Molden, D. C., Idson, L. C., & Higgins, E. T. (2001). Promotion and prevention focus on alternative hypotheses: Implications for attributional functions. *Journal of Personality and Social Psychology*, 80, 5–18. doi:10.1037/0022-3514.80.1.5
- Lisjak, M., Molden, D. C., & Lee, A. Y. (2012). Primed interference: The cognitive and behavioral costs of an incongruity between chronic and primed motivational orientations. *Journal of Personality and Social Psychology*, 102, 889–909. doi:10.1037/a0027594
- Little, B. R. (1996). Free traits, personal projects, and idio-tapes: Three tiers for personality psychology. *Psychological Inquiry*, 7, 340–344.
- Loevinger, J. (1976). *Ego development*. San Francisco, CA: Jossey-Bass.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50, 370–396. doi:10.1037/h0054346
- Maslow, A. (1968). *Toward a psychology of being* (2nd ed.). Princeton, NJ: Van Nostrand.
- McAdams, D. P. (1994). Can personality change? Levels of stability and growth in personality across the lifespan. In T. Heatherton & J. Weinberger (Eds.), *Can personality change?* (pp. 299–313). Washington, DC: APA Books. doi:10.1037/10143-027
- McAdams, D. P. (1995). What do we know when we know a person? *Journal of Personality*, 63, 365–396. doi:10.1111/j.1467-6494.1995.tb00500.x
- McAdams, D. P. (1997). A conceptual history of personality psychology. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of Personality psychology* (pp. 3–39). San Diego, CA: Academic Press. doi:10.1016/B978-012134645-4/50002-0
- McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology*, 5, 100–122. doi:10.1037/1089-2680.5.2.100
- McAdams, D. P. (2008). *Life Story Interview*. Retrieved from <https://www.sesp.northwestern.edu/docs/LifeStoryInterview.pdf>
- McAdams, D. P. (2013). *The redemptive self: Stories Americans live by* (revised and expanded edition). New York, NY: Oxford University Press.
- McAdams, D. P., Anyidoho, N., Brown, C., Huang, Y. T., Kaplan, B., & Machado, M. A. (2004). Traits and stories: Links between dispositional and narrative features of personality. *Journal of Personality*, 72, 761–784. doi:10.1111/j.0022-3506.2004.00279.x
- McAdams, D. P., Hanek, K. J., & Dadabo, J. G. (2013). Themes of self-regulation and self-exploration in the life stories of religious American conservatives and liberals. *Political Psychology*, 34, 201–219. doi:10.1111/j.1467-9221.2012.00933.x
- McAdams, D. P., & Manczak, E. (in press). Personality and the life story. In M. Mikulincer & J. L. Cooper (Eds.), *Handbook of personality and social psychology*. Washington DC: American Psychological Association.
- McAdams, D. P., & McLean, K. C. (2013). Narrative identity. *Current Directions in Psychological Science*, 22, 233–238. doi:10.1177/0963721413475622
- McAdams, D. P., & Olson, B. D. (2010). Personality development: Continuity and change over the life course. *Annual Review of Psychology*, 61, 517–542. doi:10.1146/annurev.psych.093008.100507
- McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, 61, 204–217. doi:10.1037/0003-066X.61.3.204
- McCrae, R. (1987). Creativity, divergent thinking, and openness to experience. *Journal of Personality and Social Psychology*, 52, 1258–1265. doi:10.1037/0022-3514.52.6.1258
- McCrae, R. R., Costa, P. T., Jr., Ostendorf, F., Angleitner, A., Hrebickova, M., Avia, M. D., . . . Smith, P. B. (2000). Nature over nurture: Temperament, personality, and life span development. *Journal of Personality and Social Psychology*, 78, 173–186. doi:10.1037/0022-3514.78.1.173
- McLean, K. C., Pasupathi, M., & Pals, J. L. (2007). Selves creating stories creating selves: A process model of self-development. *Personality and Social Psychology Review*, 11, 262–278. doi:10.1177/1088868307301034
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102, 246–268. doi:10.1037/0033-295X.102.2.246
- Molden, D. C., & Higgins, E. T. (2008). How preferences for eager versus vigilant judgment strategies affect self-serving conclusions. *Journal of Experimental Social Psychology*, 44, 1219–1228. doi:10.1016/j.jesp.2008.03.009
- Molden, D. C., Lucas, G. M., Finkel, E. J., Kumashiro, M., & Rusbul, C. (2009). Perceived support for promotion-focused and prevention-focused goals: Associations with well-being in unmarried and married couples. *Psychological Science*, 20, 787–793. doi:10.1111/j.1467-9280.2009.02362.x
- Mroczek, D. K., Almeida, D. M., Spiro, A., & Pafford, C. (2006). Modeling intraindividual stability and change in personality. In D. K. Mroczek & T. Little (Eds.), *Handbook of personality development* (pp. 163–180). Mahwah, NJ: Erlbaum.
- Murray, G., Rawlings, D., Allen, N. B., & Trinder, J. (2003). NEO Five-Factor Inventory scores: Psychometric properties in a community sample. *Measurement and Evaluation in Counseling and Development*, 36, 140–149.
- Murray, H. A. (1938). *Explorations in personality*. New York, NY: Oxford University Press.
- Roberts, B., Kuncel, N. R., Shiner, R. L., Caspi, A., & Goldberg, L. R. (2007). The power of personality: The comparative validity of personality traits, socioeconomic status, and cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science*, 2, 313–345. doi:10.1111/j.1745-6916.2007.00047.x
- Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069–1081. doi:10.1037/0022-3514.57.6.1069
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719–727. doi:10.1037/0022-3514.69.4.719
- Schultz, W. T. (Ed.). (2005). *Handbook of psychobiography*. New York, NY: Oxford University Press.
- Smillie, L. D., Pickering, A. D., & Jackson, C. J. (2006). The new Reinforcement Sensitivity Theory: Implications for personality measurement. *Personality and Social Psychology Review*, 10, 320–335. doi:10.1207/s15327957pspr1004\_3
- Strauman, T., McCrudden, M. C., & Jones, N. P. (2010). Self-regulation and psychopathology: Toward an integrative perspective. In J. E. Mad-dux & J. P. Tangney (Eds.), *Social psychological foundations of clinical psychology* (pp. 84–113). New York, NY: Guilford Press.
- Vaughn, L. A., Baumann, J., & Klemann, C. (2008). Openness to experience and regulatory focus: Evidence of motivation from fit. *Journal of Research in Personality*, 42, 886–894. doi:10.1016/j.jrp.2007.11.008
- Ware, J., Kosinski, M., & Keller, S. (1996). A 12-item short-form health survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care*, 34, 220–233. doi:10.1097/00005650-199603000-00003
- York, K. L., & John, O. P. (1992). The four faces of Eve: A typological analysis of women's personality at midlife. *Journal of Personality and Social Psychology*, 63, 494–508. doi:10.1037/0022-3514.63.3.494

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