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The Way is the Goal: The Role of Goal Focus for Successful Goal Pursuit and Subjective Well-Being

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The Way is the Goal: The Role of Goal Focus for Successful Goal Pursuit and Subjective Well-Being

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Abstract:

Goals are considered by some theories as essential for subjective well-being (i.e., telic theories, see Diener, 1984). In fact, achieving goals is beneficial for subjective well-being. However, just holding goals does not bring about goal achievement. Therefore, this chapter highlights the importance of goal *pursuit* (autotelic theories) in addition to goal achievement for a more comprehensive understanding of subjective well-being. We address the question of whether goal progress and attainment are differentially related to subjective well-being and examine how people best pursue their goals. Specifically, we posit that focusing more on the means of goal pursuit (i.e., adopting a process focus) is more beneficial for goal progress and subjective well-being than focusing more on its ends (i.e., adopting an outcome focus). There also exists some evidence that suggests that adopting a process focus is adaptive when people face a particular type of difficulty when intending to pursue a goal, namely procrastination. Given that procrastination hinders successful goal pursuit and subjective well-being, this finding again highlights the importance of goal focus for understanding how people best pursue their goals.

Keywords: Subjective Well-Being, Goals, Goal Pursuit, Goal Focus, Procrastination

Albert Einstein reportedly stated: “If you want to live a happy life, tie it to a goal, not to people or things.” In fact, research shows that having a goal, even if we do not reach it, provides us with a sense of direction and meaning (e.g., Emmons, 1996; Klinger, 1977; Little, 1989). This might be best illustrated by another quote, this time from actor and martial arts master Bruce Lee: “A goal is not always meant to be reached, it often serves simply as something to aim at.” Setting and pursuing long-term goals that go beyond the immediate gratification of needs such as food or shelter seems central to humans: People live by identifying desirable states they want to achieve (or undesirable ones they want to avoid) for themselves and their lives, and ways of achieving (or avoiding) these states (e.g., Carver & Scheier, 1990; Emmons, 1996; Freund, 2007). In this chapter, we will explore some of the mechanisms by which goals affect subjective well-being.

Goals and Subjective Well-Being

A goal can be defined as the cognitive representation encompassing the linking of means to desired outcomes (Kruglanski et al., 2002). For example, the goal to get a college degree entails desired outcomes (e.g., to get a job, to impress others) and means to attain these outcomes (e.g., to study hard, to resist temptation). Because goals are comprised of means and ends, they might act as channels for new knowledge and organize information in terms of means and ends (e.g., Woike, Lavezzary, & Barsky, 2001). As knowledge structures, goals follow similar principles of activation, change, and organization that have been articulated in reference to knowledge representations in general (e.g., Higgins, 1996).

Goals have been described as building blocks for the accomplishment of a variety of developmental tasks and their achievement is likely to foster long-term patterns of successful development (Freund &

Riediger, 2006; Heckhausen, 1999; Ryff, 1989). As pointed out above, goals imbue life with meaning and provide structure and direction (e.g., Emmons, 1996; Klinger, 1977; Little, 1989). Against this backdrop, successful goal pursuit can be linked to both cognitive and affective aspects of subjective well-being, which represent distinct lower order constructs, but also load onto a single higher-order factor of subjective well-being (Lucas, Diener, & Suh, 1996). According to Diener, Lucas, and Oishi (2002), subjective well-being denotes “emotional reactions to events as well as cognitive judgments of satisfaction and fulfillment” (p. 63). There is no systematic investigation into a potential dissociation of affective and cognitive aspects of subjective well-being in relation to goal pursuit and goal achievement. Therefore, we will review the literature linking goals and subjective well-being as it is formulated in theories and with regard to the aspects of subjective well-being that were included in the empirical studies. Note, however, that it would be theoretically very interesting to systematically separate affective and cognitive aspects of subjective well-being and their association with goal pursuit and achievement.

Goals are often seen as essential to the cognitive aspect of well-being, as this evaluation entails the judgment of how well one is doing vis-à-vis important goals. In such telic conceptions of cognitive well-being, satisfaction indicates the degree of goal achievement, which, in turn, is crucial for experiencing life satisfaction (Diener, 1984). In other words: when people achieve goals, they experience satisfaction, when they fail to achieve goals, they experience dissatisfaction (e.g., Brunstein, 1993; Emmons, 1986; Klug & Maier, 2015). This is also in line with control theory of goals (Carver & Scheier, 1990) and goal-setting theory (Locke & Latham, 1990), according to which goals are effective because they indicate the level of performance that is acceptable.

With regard to the affective aspect of subjective well-being, prominent models such as the model of goal-directed emotions (Bagozzi, Baumgartner, & Pieters, 1998) consider anticipatory emotions, as well as emotions tied to the actual outcome of goal pursuit. Anticipatory emotions are elicited by the prospects of goal success or failure (e.g., “If I succeed in achieving my goal of getting a degree, I will feel happy”). Depending on their intensity, anticipatory emotions have a smaller or greater potential to motivate goal-directed actions that are necessary for goal attainment. Goal attainment, in turn, elicits outcome-related emotions (e.g. “Because I have now received the degree, I am happy”). Carver and Scheier (e.g., 1990) assume that the velocity with which we approach desired end states (i.e., how fast we close the gap between the actual and the desired state) is associated with positive affect (or, in the case of insufficient speed of progress, negative affect).

Thus, goals have an important function for the regulation and evaluation of behavior and subjective well-being. However, the link between goals and subjective well-being is complex. On the one hand, evidence from longitudinal studies shows that successful goal striving can boost subjective well-being (Sheldon & Houser-Marko, 2001). On the other hand, and according to the hedonic treadmill theory (Brickman & Campbell, 1971), the positive effects of reaching goals are typically short-lived (Frederick & Loewenstein, 1999). That is, people adapt quickly to good or bad outcomes and return to their baseline levels of happiness (e.g., Bonanno et al., 2002; Bonanno, Wortman, & Nesse, 2004; Brickman, Coates, & Janoff-Bulman, 1978; Lucas, Clark, Georgellis, & Diener, 2003; for limitations of the hedonic treadmill theory, see Diener, Lucas, & Scollon, 2006). Goals can even be understood as having an inherent potential for dissatisfaction. This is because setting goals creates a negative discrepancy between the actual and the desired state. In the same vein, McIntosh and Martin (1992) argued that people who see goal attainment as a prerequisite for their happiness might ruminate in the case of failure, which would lead to negative mood and unhappiness.

In addition, some types of goals bring forth more subjective well-being than others. Two important goal characteristics that affect subjective well-being are *goal content* and whether goals are *approach or avoidance* goals (Carver & Baird, 1998; Kasser & Ryan, 1993). Regarding goal content: goals that satisfy basic psychological needs (e.g., to belong) and that converge with underlying motives (e.g., affiliation) are more likely to lead to emotional well-being (Brunstein, Schultheiss, & Grässman, 1998; Deci & Ryan, 2008). However, in the case of failure, they also have a stronger negative effect on subsequent subjective well-being (Sheldon et al., 2010).

Beginning with William James (1890), there is a long and rich tradition of research on approach and avoidance motivation and goals, that was reflected in learning theories (e.g., Hull, Thorndike, Skinner) as well as in motivation theories (e.g., Atkinson, Higgins, Lewin, McClelland). A review of this literature is beyond the scope of this chapter (for an entire handbook on this topic, see Elliot, 2008). Suffice it here to summarize this research very roughly by stating that approach goals are generally related to higher positive emotions and well-being, whereas avoidance goals are related to lower subjective well-being (lower positive mood, less life satisfaction, more anxiety) and performance (e.g., Coats, Janoff-Bulman, & Alpert, 1996; Elliot & Sheldon, 1997; Elliot, Sheldon, & Church, 1997; Emmons, 1996). The lifespan developmental literature has put forth a somewhat different yet related distinction between goals that are

oriented towards achieving gains, maintenance, or the avoidance of loss (Freund & Ebner, 2005). This literature shows that adults become more maintenance and loss-avoidant with age, and that this shift seems adaptive when considering the age-differential association of goal-orientation and subjective well-being (for a summary, see Freund, Hennecke, & Mustafić, 2012).

Goal Pursuit and Subjective Well-Being

Despite the evidence for a positive relationship between simply holding goals and subjective well-being, having the right kind of goals is not enough to bring about goal achievement and guarantee well-being (Diener, Suh, Lucas, & Smith, 1999). Thus, important questions in the research on goals are: Are goal progress and attainment differentially related to subjective well-being? How do people best pursue their goals? We will address each of these questions in the next sections.

Differential Effects of Goal Pursuit and Attainment

The idea that goal progress and attainment may be differently related to subjective well-being has its historical roots in the question of whether subjective well-being is brought about by the attainment of desired end states (telic theories) or by the movement toward such end states (autotelic theories). The autotelic perspective has its roots in ancient Greek philosophy as for instance developed by Aristotle, who suggested that positive human experience may lie in the nature of activity itself rather than in any end state toward which such activity might be directed. This thought was seized upon by many classical theorists (for an overview, see Diener, 1984; Omodei & Wearing, 1990) and has led more recent research to explore unique effects of goal pursuit. As mentioned above, Carver and Scheier (1990) drew a direct link between goal progress and emotional well-being by viewing emotions as indicators of distance-reducing processes between actual and desired states. In line with this theory, Hsee and Abelson (1991) found that the *rate of progress* toward one's desired end states, rather than their attainment *per se*, was responsible for differences in affect. Little (2005) posited that positive psychological functioning, which includes subjective well-being, is contingent on the sustainable pursuit of core personal projects. Indeed, a recent meta-analysis (Klug & Maier, 2015) has shown that the association between successful goal striving and subjective well-being was larger when successful goal pursuit was defined as goal progress instead of goal attainment. However, Wiese and Freund (2005) found that subjective progress in the pursuit of personal goals was not (or only weakly) related to subjective well-being (positive and negative affect, satisfaction) but that the degree to which people were involved in pursuing their goals was associated with an increase in subjective well-being over the course of three years.

There is empirical evidence for qualitatively different subjective well-being experiences between goal progress and attainment. Austin and Vancouver (1996) suggested that progressing toward a goal might be associated with a unique "flow"-like (Csikszentmihalyi, 1990) type of affect that is not related to outcome valence. Support for such distinct emotional experiences during goal pursuit and following goal attainment is provided by brain research. For example, Davidson (1994) posited that approach-related affect (e.g., enthusiasm) is usually generated when moving toward a desired goal and associated with an activation of a specific brain region (i.e., the dorsolateral prefrontal cortex). In contrast, positive affect experienced after goal attainment is phenomenologically experienced as contentment and not associated with this brain region. In sum, then, goal pursuit and progress are beneficial to subjective well-being and separate from goal attainment effects (see Wiese, 2007, for an overview). We will next elaborate more on the issue of goal pursuit.

Successful Goal Pursuit

The question how people best pursue their goals concerns the factors that promote successful goal pursuit. Different social psychological models such as the theory of reasoned action (Fishbein, 1980; Fishbein & Ajzen, 1975), the theory of planned behavior (Ajzen, 1985, 1991), and protection motivation theory (Rogers, 1975, 1983) propose that intentions to perform a behavior are the most immediate and important predictor of actual behavior. However, although intentions (e.g., "I intend to get a degree") can predict actual behavior, the intention-behavior consistency is far from perfect (see Sheeran, 2002). This so called 'intention-behavior gap' can be the result of people not having the necessary resources, skills, or cooperation needed to turn commitment into action (Sheeran, Trafimow, & Armitage, 2003).

Often, people fail to cope effectively with problems during goal striving. That is, they may have problems detecting opportunities to act (Kruglanski et al., 2002), shielding goals from distractions (Fishbach, Friedman, & Kruglanski, 2003) or competing goals (Shah, Friedman, & Kruglanski, 2002), and monitoring progress toward goals (Lieberman & Dar, 2009). Such difficulties in goal pursuit can be seen as a function of both which goal is selected (i.e., a goal's content) as well as strategies and plans associated with how to pursue and achieve the goal (i.e., goal process). Important dimensions are the concreteness of

the goal (both, concerning the means and the ends) and the difficulty of goal pursuit and attainment. Locke and Latham (2002) have summarized the core finding of more than three decades of research on goal-setting theory as showing that specific and challenging goals are best suited to promote goal success as well as subjective satisfaction. However, as Ordóñez, Schweitzer, Galinsky, and Bazerman (2009) have pointed out, setting appropriate goals in this way may be a challenge itself: People may set goals that are too specific or too challenging. Inappropriate goal setting, in turn, may have harmful effects on subjective well-being. For instance, goals can focus attention so narrowly that people neglect other important dimensions in life, or they might set goals that are so difficult that the likelihood of failure is very high.

Problems during goal pursuit might also be due to the use of inefficient means such as a poor strategy to pursue a goal or to a poor implementation of the strategy. When goals are personally highly important, such difficulties in goal pursuit are associated with lower subjective well-being (e.g., Diener, 1984; Emmons, 1986; Little, 1983; Omodei & Wearing, 1990; Palys & Little, 1983; Ruchlman & Wolchik, 1988; Snyder et al., 1996). The obvious question, then, is: What are effective strategies of goal pursuit?

Effective strategies. Different strategies have proven effective to tackle problems during goal pursuit and to positively influence subjective well-being. One of the strategies is mental contrasting of vague positive fantasies of outcomes with the less positive actual state, thereby producing commitment to a more reachable goal and the related involvement in goal pursuit (Oettingen et al., 2009). The actual involvement in goal pursuit is related to the specification and concreteness of the representation of the behavioral steps that have to be undertaken (i.e., implementation intentions; Gollwitzer, Fujita, & Oettingen, 2004). In implementation intentions, people plan the when, where, and how of striving for a goal in the format of “If I encounter situation Y, then I will perform goal-directed response Z.” A wealth of evidence supports the effectiveness of implementation intentions (e.g., Gollwitzer, 1999; Gollwitzer & Brandstätter, 1997; Parks–Stamm, Gollwitzer, & Oettingen, 2007). Combined with mental contrasting, the formation of implementation intentions is even more effective than either of the strategies alone (Adriaanse et al., 2010). Further factors that support goal progress and attainment that have been shown to increase subjective well-being include persistence, self-efficacy, and optimism (e.g., Bandura, 1997; Carver et al., 1993; Emmons, 1996; Freund & Baltes, 1998; Freund & Riediger, 2006; Scheier et al., 1989; Seligman, 1991).

Although goal progress enhances subjective well-being, being able to disengage from goals is also important for the maintenance of subjective well-being (e.g., Brandstätter & Greve, 1994; Heckhausen & Schulz, 1995): When goals are beyond reach and cannot be attained, people are at risk of compromising their subjective well-being if they do not protect emotional and motivational resources by disengaging from these goals and reengaging in new meaningful goals (Brandstätter & Renner, 1990; Heckhausen, Wrosch, & Schulz, 2010; Wrosch & Miller, 2009; Wrosch, Miller, Scheier, & de Pontet, 2007; Wrosch, Scheier, Miller, Schulz, & Carver, 2003).

As pointed out above, the representation of goals in terms of concrete goal-relevant actions in a specific context (i.e., implementation intentions) as well as the specificity of outcomes (in contrast to vague fantasies) is important for successful goal pursuit and subjective well-being. However, this research does not address the consequences of focusing more on the process or the outcome of goal pursuit for successful goal pursuit and subjective well-being. We will do so in the remainder of this chapter.

Goal Focus

At the beginning of this chapter, we defined goals as cognitive representations linking means to outcomes of goal pursuit. The concept of goal focus denotes the salience of the means or the process (i.e., *process focus*) and the salience of the ends of goal pursuit (i.e., *outcome focus*) in the representation of a given goal. In other words, process focus is the degree to which a person attends to the aspects of the goal that are related to the means, whereas outcome focus is the degree to which a person attends to the desired outcomes and consequences of goal pursuit (Freund et al., 2012).

As elaborated by Freund and Hennecke (2015), relative to outcomes, means (e.g., running) are typically more proximal and concrete than their more distal and abstract outcomes (e.g., an increased endurance; Carver & Scheier, 1998; Trope & Liberman, 2003; Vallacher & Wegner, 1989). Similarly, the process of goal pursuit takes place in specific situational contexts, whereas outcomes tend to be more decontextualized. For example, a runner must run in specific contexts (e.g., in the woods), while the desired gain in endurance is not context-bound but hopefully generalizes to diverse situations. Another feature distinguishing outcome and process focus is that outcome focus more likely provides a clear standard of comparison between actual and desired states and therefore also for goal achievement: The appropriateness of the means is measured according to the standard set by the outcome—the runner, for instance, is successful only if the running results in the desired gain in endurance; the number of miles he or she is able

to run without a break reveals the discrepancy between the desired and the current state. However, different to a focus on the process, outcomes do not offer guidelines for goal-relevant actions (e.g., Emmons, 1996; Klinger, 1977; Little, 1989): Focusing on better endurance does not bring about this outcome (Oettingen, 1996), but focusing on *how* to achieve better endurance is more likely to lead to the necessary running exercises (Gollwitzer, 1999).

Similarities and Differences Between Goal Focus and Related Constructs

In order to introduce the concept of goal focus more fully, the following sections place it in the context of related psychological constructs.

Construal level and psychological distance. Construal level theory posits that the same event, object, or goal can be represented at different levels of abstractness or generality (Trope & Liberman, 2003, 2010). A low-level construal conveys specific features of a stimulus, the implications of which are often context-specific, whereas a high-level construal conveys a more global, de-contextualized representation of the stimulus (e.g., Fujita, Trope, Liberman, & Levin-Sagi, 2006). Moreover, construal level theory assumes that people use increasingly high levels of construal to represent an object as their psychological (i.e., temporal, social, spatial, or probabilistic) distance from the object increases. However, whereas construal levels denote general mind-sets representing events or goals in more concrete/immediate or abstract/delayed terms, goal focus refers to means-ends relations (Freund & Hennecke, 2015). For example, when a dieter chooses between an apple and a candy bar as a snack, lower level construals would lead the person to focus on the immediate hedonic value and concrete features of the choice (e.g., differences in taste). Therefore, a concrete construal of the two options likely leads to a choice of the candy bar. In contrast, higher levels of construals would lead the dieter to consider the more abstract and delayed health-related implications of each food option. Therefore, an abstract construal of the two options likely leads to the choice of the apple (Fujita & Sasota, 2011). In contrast, goal focus refers to the salience of means and ends *within a given goal*. Whereas the candy bar would likely be judged a good means if the goal is to increase the hedonic enjoyment of food, it would not be considered a good means for a health goal. For a health goal, an apple would likely be represented as a better means than a candy bar (Freund & Hennecke, 2015).

Evidence for the idea that goal focus and concreteness are related but not redundant is also provided by Freund and Hennecke (2012). Although there was a weak to moderate positive association between goal focus and concreteness, goal focus explained unique variance over and above concreteness in a health-related outcome. Moreover, according to construal level theory, people construe goals along a unidimensional continuum from concrete to abstract. In contrast, process and outcome focus are conceptualized as two dimensions. Empirical evidence supports this view: We investigated how process and outcome focus change with an approaching deadline when pursuing an important goal (Kaftan & Freund, 2017a), and found that they evolve asymmetrically over time. In addition, process and outcome focus show a weak positive association, implying that outcome and process focus are two dimensions rather than two opposite poles on one dimension.

Intrinsic and extrinsic motivation. When intrinsically motivated, people engage in activities because they derive satisfaction from the engagement in the activity itself, without concern for its further instrumentality. According to self-determination theory (SDT; Deci & Ryan, 2000), intrinsic motivation is content-based because an intrinsically motivated action serves at least one of three end goals that are essential for achieving and maintaining well-being: autonomy, competence, or relatedness. When extrinsically motivated, people do not act out of interest but because they perceive them as being instrumental to bring about more tangible and separable consequences like a material reward. When extrinsic goals dominate over intrinsic goals, according to SDT, they can distract people from intrinsic endeavors that support their subjective well-being (e.g., Deci & Ryan, 2008).

In contrast, goal focus is mute regarding the underlying reasons for engaging in goal pursuit as both process and outcome focus can be associated with intrinsic or extrinsic motivation (Freund et al., 2012). For example, while reading a paper, a student may focus on highlighting important passages (i.e., process focus) or focus on acquiring new knowledge (i.e., outcome focus). When focusing on highlighting important passages, the student might do so because he or she loves to structure texts with different colors (i.e., intrinsic motivation) or because he or she is positively reinforced for doing so by being paid by another student for highlighting the most important passages of the text (i.e., extrinsic motivation). Similarly, when focusing on acquiring new knowledge, the student might do so because he or she is autonomously interested in understanding new scientific discoveries (i.e., intrinsic motivation) or to impress a teacher with his or her knowledge (i.e., extrinsic motivation).

Intrinsic motivation involves enjoyment of the activity – Rheinberg (1989) describes this as the incentive that lies solely in engaging in the task – and is positively related to positive affect (e.g., Bye,

Pushkar, & Conway, 2007). Goal focus, in contrast, is affectively neutral in the sense that it takes on the affective valence that people experience or anticipate when they focus on the process or outcome, respectively. For instance, when a person focuses on highlighting important passages in a paper and experiences this activity as fun, this would likely positively influence her affect, but if she experienced this activity as boring, this would likely negatively impact her affect.

The meaning of the concept of goal focus dissolves in the structure-perspective on intrinsic motivation by Shah and Kruglanski (2000). The authors maintain that intrinsic motivation occurs when an activity (means) and the outcome of this activity (goal) are closely associated such that there is a sense of inseparability between the two (i.e., a *means-end fusion*; Kruglanski et al., 2013). A case in point is the goal to have a good time with friends where the means – doing something fun with friends – cannot be separated from the ends. If the activity itself constitutes the desirable end state, as is the case in all enjoyment goals (e.g., enjoying music, a good meal, or somebody's company), the concept of goal focus becomes vacuous as it presupposes separable means and ends.

In sum, the concept of goal focus has some overlap with other motivational constructs such as construal level as well as intrinsic and extrinsic motivation, but it also carries unique meaning that is not covered by these constructs (for links between goal focus and mastery/performance goal orientation, see Freund et al., 2012). Let us now turn to the adaptiveness of goal focus. Specifically, we first give an overview of empirical evidence suggesting that a process focus (i.e., a “the way is the goal” attitude) is related to a higher likelihood of achieving difficult goals and to affective well-being. Then, we will address the underlying mechanisms that explain why focusing on the process is adaptive, and also consider situations in which an outcome focus might be more adaptive.

Adaptiveness of Process Focus for Successful Goal Pursuit and Subjective Well-Being

There is growing evidence that adopting a process focus is more beneficial to successful goal pursuit and achievement than adopting an outcome focus – particularly when goal pursuit is difficult. In a longitudinal study with overweight women, Freund and Hennecke (2012) found that focusing on the process (dietary behaviors) rather than on the outcome of dieting (weight loss) is associated with more successful goal pursuit and achievement. Similarly, Hennecke and Freund (2014) examined how goal progress during a diet (i.e., weight loss) impacts subsequent weight loss depending on whether success is identified on the process level or the outcome level of dieting. They found that successful weight loss in one week predicted less weight loss (or even weight gain) in the subsequent week – a well-known effect from the literature on “self-licensing” (e.g., De Witt Huberts, Evers, & De Ridder, 2012). However, identifying success on the process level (vs. the outcome level) attenuated this negative effect.

In the academic context, Pham and Taylor (1999) found that students who mentally simulate the process of studying for an exam study more hours and obtain higher exam scores than students who mentally simulate the feeling of receiving a good grade or that do not mentally simulate anything at all (i.e., a control group). In the same context, focusing on the process has also been found to be adaptive when learning a new task such as acquiring writing revision skill (Zimmerman & Kitsantas, 1997, 1999). Houser-Marko and Sheldon (2008) found that students who self-reported lack of goal progress framed in terms of the outcome (which they termed “primary goal level”) reported lower levels of perceived performance than students who framed lack of goal progress in terms of the process (which they termed “sub-goal level”).

In other studies, a process rather than an outcome focus was positively related to dental flossing (Fishbach & Choi, 2012) and exercising adherence (Fishbach & Choi, 2012; Freund, Hennecke, & Riediger, 2010; Kaftan & Freund, 2017b). For example, Fishbach and Choi (2012) found that asking participants to describe why (i.e., outcome focus) they were engaging in a particular activity (e.g., yoga) resulted in a lower level of persistence than was observed when asking participants to describe their experience of the activity (i.e., process focus). Goal persistence, in turn, is associated with subjective well-being and good health (e.g., Bandura, 1986).

Similarly, in the study of Freund et al. (2010), participants with the goal to exercise regularly reported greater persistence, a higher goal satisfaction, and higher affective well-being (i.e., positive affect) over a period of 3 months when they focused on the means (vs. the outcomes) of achieving a goal. Further evidence regarding links to subjective well-being suggests that goal focus might be indirectly related to affective well-being through the ability to regulate one's behaviors and thoughts (Freund & Hennecke, 2012). Thus, outcome focus might indirectly affect negative emotions through failures of self-control. This is also supported by results from Houser-Marko and Sheldon (2008), who found that failure feedback had stronger negative effects on mood when it pertained to the outcome compared to the process. When goal pursuit is difficult, people who focus on the process are also more satisfied with their performance (Vallacher, Wegner, & Somoza, 1989).

Underlying mechanisms. Why is adopting a process focus more adaptive than adopting an outcome focus? As mentioned before, a process focus likely provides guidelines for goal-relevant actions (e.g., Emmons, 1996; Klinger, 1977; Little, 1989). In their study, Pham and Taylor (1999) investigated the mechanisms by which process simulation exerts its positive effect on exam performance. They found that the effect was mediated by enhanced planning and reduced anxiety. In a similar vein, Fishbach and Choi (2012) explained their findings by arguing that experience weighs more than the outcome as soon as people actually pursue an activity. In their study, an outcome focus not only negatively affected the positive experience of pursuing a goal but also reduced participants' motivation and adherence to goal-relevant routines. Thus, when people adopt an outcome focus, they might be more likely to pursue an activity only as a means to an end, which causes a devaluation of the intrinsic appeal of the activity. In contrast, focusing on the process may counteract the tendency for complacency and to "slack" when making progress towards goal achievement (Amir & Ariely, 2008; De Witt Huberts, Evers, & De Ridder, 2014). For example, when people focus on the process, success and failure are followed by less intense affective reactions (Houser-Marko & Sheldon, 2008). That is, focusing on the process of successful goal pursuit less likely generates a sense of achievement that can be followed by a period of decreased goal-related effort than focusing on the outcome (Amir & Ariely, 2008). In contrast, a failure in goal pursuit less strongly impairs mood, subsequent motivation, and expectancy for future goal performance when focusing on the means instead of the outcome (Freund & Hennecke, 2012; Houser-Marko & Sheldon, 2008).

There are several reasons why focusing on the process may be particularly beneficial when people learn a new task (Zimmerman & Kitsantas, 1997, 1999), a task is difficult (Vallacher et al., 1989), or the goal demanding with respect to self-regulation (Freund et al., 2010). In these cases, a process focus helps people to acquire the necessary goal-relevant means and make fewer errors. In the dieting study of Hennecke and Freund (2014), process focus (but not outcome focus) predicted increases in self-efficacy from baseline to after the diet. Self-efficacy, in turn, is known to adaptively influence the goal challenges people set for themselves, the effort they invest in the endeavor, and how perseverant they are when facing difficulties and setbacks (Bandura, 2013). In this line, several studies have documented that people who are confident to achieve what they want (i.e., are high in self-efficacy) also experience higher subjective well-being than people who are not (i.e., are low in self-efficacy; e.g., Caprara & Steca, 2005; Lent et al., 2005; Luszczynska, Scholz, & Schwarzer, 2005). Similarly, it is likely that a higher process focus leads to higher perceived behavior control, which entails both self-efficacy (dealing largely with the ease or difficulty of performing a behavior) and controllability (the extent to which performance is up to the actor; Ajzen, 2002).

Moreover, when adopting a process focus, people more likely persist in a given activity (e.g., studying) if they experience this activity as rewarding (Freund & Hennecke, 2015). The reward might lie in the intrinsic value of the means (e.g., an increased interest in the activity) or in their instrumentality for achieving the desired outcome. When people perceive the means as particularly instrumental, this not only positively influences their motivation to pursue a given goal but also how much effort they invest in goal pursuit, and their performance (Bandura, 1997; Labroo & Kim, 2009). In turn, when people feel that they invest effort in the process of goal pursuit, they also come to view the means as more valuable and instrumental (Labroo & Kim, 2009). In contrast, an outcome focus may distract from practicing and acquiring the goal-relevant means and thereby hinder successful goal pursuit.

A related reason for the adaptiveness of process focus is that people use effort as a heuristic: the more effort they invest in goal pursuit, the more valuable they deem the outcome to be (Kruger, Wirtz, Van Boven, & Altermatt, 2004). Higher value beliefs, in turn, are linked to a higher persistence (e.g., Eccles & Wigfield, 2002; Wigfield & Eccles, 2000). Thus, when a person focuses on the means of goal pursuit, the effort he or she has invested in goal pursuit as well as the value and instrumentality of the means should be more salient compared to when the person focuses on the outcome. A process focus should therefore intensify the described effects and contribute to greater persistence and better performance. A quote that nicely encapsulates these effort-related benefits of a process focus comes from former supreme court justice Benjamin Cardozo, who stated that: "In the end the great truth will have been learned that the quest is greater than what is sought, the effort finer than the prize (or rather, that the effort is the prize), the victory cheap and hollow were it not for the rigor of the game."

Adaptiveness of Outcome Focus

At first sight, the reviewed evidence supporting the adaptiveness of process focus for successful goal pursuit contradicts findings from other studies in the field. A first important contradiction seems to exist between the work on goal focus and research on construal level. Research on goal focus favors the adaptiveness of adopting a process focus, whereas research on construal level has shown that higher-level, more abstract construals increase the adoption of both immediate (e.g., Magen & Gross, 2007; Schmeichel & Vohs, 2009) and prospective (e.g., Fujita & Roberts, 2010) self-control strategies.

For example, Fujita et al. (2006) found that higher-level construals can improve self-control by reminding people of the reasons why (i.e., their superordinate goals) they are engaging in a difficult behavior (e.g., studying for an exam). Self-control, in turn, is related to positive affect as part of subjective well-being (e.g., Hamama, Ronen, Shachar, & Rosenbaum, 2013). However, note that goal focus denotes the salience of means and ends within a given goal, whereas the operationalization of construal level by Fujita and colleagues induces a *general cognitive mind-set* of a more high-level (i.e., abstract) and a more low-level (i.e., concrete) representation of events. This mind-set is induced using events that are unrelated to the goals and self-reported self-control judgments that are subsequently assessed. This kind of procedural priming does not target the relative salience of the means and ends within a given goal. For instance, in Study 1, Fujita et al. (2006) asked participants to generate responses to “why” or “how” to maintain good physical health. They subsequently assessed a variant of the delay of gratification scenarios that are unrelated to physical health as a measure of self-control for various items (e.g., a DVD player), indicating a preference for immediate versus delayed rewards. In fact, Fujita and colleagues (2006, p. 355) state that “preferences for immediate versus delayed outcomes do not capture a conflict between means and ends but rather a conflict between what is primary and what is secondary.”

Another potential issue that challenges the supremacy of process focus over outcome focus is that outcome focus may be adaptive in specific phases of goal pursuit. There are no studies that systematically compare the adaptiveness of outcome focus and process focus in different phases of goal pursuit, however, Freund et al. (2012; see also Krause & Freund, 2014b) suggested that process and outcome focus as well as their adaptiveness may change over the course of goal pursuit. For instance, when a deadline is still far away, a focus on the outcome may distract people from the implementation of goal-relevant actions. In contrast, once the deadline is looming, an outcome focus might revive the importance of a goal and give a final “boost” to motivation even if the means are unpleasant. If research were to show that the adaptiveness of process and outcome focus dynamically varies over time, this would also have implications for subjective well-being. One particular challenge that would have to be addressed in this research is the separation of changes in subjective well-being tied to goal focus and goal pursuit from fluctuations of subjective well-being due to independent factors such as diurnal rhythm (Chow, Ram, Boker, Fujita, & Clore, 2005; Larsen, 2000; Luhmann, Schimmack, & Eid, 2011). Solving this issue necessitates the assessment of both goal focus and indicators of subjective well-being repeatedly over time (see Diener, Pressman, Hunter, & Delgado-Chase, 2017).

Similarly, Carver and Scheier (1998) argue that focusing on the outcome and comparing the current with the desired state could motivate a person to move towards the goal. Especially when a task is perceived negatively, being reminded of its importance (the abstract framing) may aid goal-pursuit and achievement (Ferguson & Sheldon, 2010; McCrea, Liberman, Trope, & Sherman, 2008). Shah and Kruglanski (2003) found that priming attainment means increases the cognitive accessibility of desired goal states, which has a positive effect on persistence and performance during goal pursuit. However, the activation of goals (i.e., outcomes) by their attendant means was moderated by the perceived effectiveness of the means and it remains unclear to what extent participants consciously focused on means and outcomes during actual goal-directed striving.

If a task at hand is relatively easy to master, an outcome focus might be more adaptive than a process focus because people can better appreciate and consolidate their own motivations for striving, which may then re-energize them towards the goal (Ferguson & Sheldon, 2010; Houser-Marko & Sheldon, 2008; Vallacher & Wegner, 1989; Vallacher et al., 1989). A person who focuses on the outcome or keeps her “eyes on the prize” (Houser-Marko & Sheldon, 2008) might also be less distracted by alternative activities. In contrast, a person who focuses on task details, could feel overwhelmed (Dewitte & Lens, 2000). Further evidence suggests that people can benefit from shifting from a process to an outcome focus when they have acquired the necessary skills to master a task (Zimmerman & Kitsantas, 1997, 1999).

In summary, the existing research suggests that adopting a process focus (vs. outcome focus) promotes successful goal-pursuit and subjective well-being. More research is needed to identify boundary conditions and potential moderators and mediators of the relationship between goal focus, successful goal pursuit, and subjective well-being. This includes the investigation of additive or synergistic effects of process and outcome focus. A simultaneous focus on both process and outcome may lead to a recognition of trade-offs between the desirability of a goal on the outcome level and its feasibility on the means level, hence be beneficial for goal pursuit. For example, in their mental simulation study, Pham and Taylor (1999) found that mentally simulating both the process and the outcome was more beneficial for motivation than mentally simulating the process alone. Conversely, focusing on process and outcome may lead to decision difficulty, that is, a greater willingness to postpone making a choice, and a lower commitment to the chosen option (Escalas & Luce, 2004; Thompson, Hamilton, & Petrova, 2009).

The evidence reviewed above shows that goal focus predicts successful goal pursuit and subjective

well-being. Exploring the boundaries of the usefulness of this construct, the next section elaborates more on the role of goal focus in the context of one of the highly prevalent failures in goal pursuit: procrastination.

Goal Focus, Procrastination, and Subjective Well-Being

People typically do not pursue one goal in isolation but instead have multiple goals that compete for goal-relevant resources such as time and energy. For instance, wanting to pass an exam might conflict with the goal to make new friends. The presence of multiple goals thus poses challenges to goal pursuit. For example, to the extent that alternative goals are accessible, they may interfere with the commitment to a given goal. Accordingly, goals and means have to be defended or shielded by inhibiting alternative goals (e.g., Shah et al., 2002; Shah & Kruglanski, 2008). In this sense, alternative goals represent temptations. A temptation can be understood as an alternative goal, the pursuit of which hinders attainment of the focal goal, and provides less important (though often more psychologically immediate) rewards than the focal goal (Trope & Fishbach, 2000; Trope & Liberman, 2003).

Procrastination denotes the difficulty in protecting a given focal goal against alternative goals (Dewitte & Schouwenburg, 2002; Dietz, Hofer, & Fries, 2007) and is defined as “the voluntary delay of an intended and necessary and/or personally important activity, despite expecting potential negative consequences that outweigh the positive consequences of the delay” (Klingsieck, 2013, p. 26). In other words, a person has the intention to act but delays doing so to the point of discomfort (e.g., Howell & Watson, 2007; Krause & Freund, 2014a; Solomon & Rothblum, 1984).

Procrastination and Subjective Well-Being

Over the past three decades, extensive research has provided a wealth of insights into the correlates and consequences of procrastination for subjective well-being. This research has shown that procrastination is associated with negative mood states such as depression and anxiety (e.g., Ferrari, 1991; Martin, Flett, Hewitt, Krames, & Szanto, 1996; Senécal, Koestner, & Vallerand, 1995), shame and guilt (e.g., Blunt & Pychyl, 2005; Fee & Tangney, 2000; Giguère, Sirois, & Vaswani, 2016), negative self-blame (Sirois & Kitner, 2015), negative self-evaluations in general (Flett, Stainton, Hewitt, Sherry, & Lay, 2012; McCown, Blake, & Keiser, 2012), low self-esteem (Ferrari, 1994, 2000), low levels of self-compassion (Sirois, 2014), distress (e.g., Flett et al., 2012; Richardson, Abraham, & Bond, 2012), and poor overall mental health (Stead, Shanahan, & Neufeld, 2010). At first glance, the many ties of procrastination to subjective well-being may seem surprising because waiting to the last minute to get tasks done is often only immediately stressful and seems to save the time of longer goal pursuit. In fact, when we give talks on procrastination there is typically at least one person in the audience who proudly claims that he or she saves time by procrastinating and gets the task done nevertheless. Obviously, the attribution we are to make is: The person is simply a genius and gets everything done perfectly well at the very last minute. However, even if this prototypical audience member is in fact a genius and an exception to the rule, the rule is that procrastination leads to lower levels of subjective well-being and task performance (Steel, 2007). In fact, it is likely that procrastination as a more enduring tendency leads to chronic stress, which is associated with an increased risk for chronic illness that can create additional vulnerabilities and compromise subjective well-being (for an overview and the *procrastination-health model*, see Sirois, 2016a, 2016b).

Linking Goal Focus to Procrastination

Procrastination research has predominantly focused on explaining procrastination as a *dispositional* trait (Milgram, Mey-Tal, & Levison, 1998) and only little research has conceptualized and investigated procrastination as a behavioral phenomenon that depends on situational or action-oriented factors (Klingsieck, Grund, Schmid, & Fries, 2013).

We assume that the general mechanisms underlying the adaptiveness of process focus discussed above also apply to procrastination. However, some additional mechanisms are helpful for understanding procrastination. People who represent a goal more concretely (vs. abstractly) perceive goals as more urgent and, thereby, are more likely to engage in goal pursuit and to procrastinate less (McCrea et al., 2008). In contrast, a higher-level, distant construal of a task (i.e., outcome focus) might lead to the conclusion that the task only needs to be completed in the distant future, thereby matching levels of construal.

Krause and Freund (2014b) argued that focusing on the means of goal pursuit might reduce procrastination by directing one's attention to the specific actions required during goal pursuit (e.g., exam preparation) rather than to the – temporally more distant – outcome (e.g., good grade in an exam) that, in addition, might be associated with fear of failure. Testing this hypothesis, Krause and Freund (2016) found that process focus is negatively related to procrastination. In addition, a higher process focus reduced fear of failure and task aversiveness that also contributed to procrastination. In a workout study (Kaftan &

Freund, 2017b), we found that people with a higher average process focus skip less workout sessions (i.e., procrastinate less), report a higher workout satisfaction, and improve more over time as measured by objective fitness indicators (i.e., number of push-ups). Additionally, average process focus was positively related to mood.

Similarly, research on implementation intentions has found that, compared to the consideration of *why* one should pursue a given goal (i.e., outcome focus), the consideration of *how* to go about pursuing a goal (i.e., process focus) leads people to faster identify opportunities to act (Parks–Stamm et al., 2007; Webb & Sheeran, 2004), to initiate goal-relevant activities (Orbell & Sheeran, 2000; Parks–Stamm et al., 2007), to anticipate action earlier (Gollwitzer, Heckhausen, & Ratajczak, 1990), and to engage in as well as complete assigned tasks prior to a deadline (i.e., to procrastinate less; Bamberg, 2002; Gollwitzer & Brandstätter, 1997).

Moreover, when people focus on small, manageable units of action, a process focus may not only provide concrete guidelines for action (Carver & Scheier, 1998; Freund et al., 2010), but also circumvent the problem of delay of gratification as it directs attention to the small, immediate steps toward goal achievement (Steel & König, 2006), and thus reduces procrastination.

Goal Focus and the Immediate Experience of Activities

Goal focus may also have very immediate effects on how people experience or perceive activities during goal pursuit. Particularly in the case of procrastination, reports of immediate experience are important because they may differ from retrospective reports due to rationalization processes. For example, students may not experience much guilt when procrastinating because they suddenly perceive cleaning as very important, only to regret afterwards that they cleaned instead of studying for an exam. In line with this reasoning, Krause and Freund (2014a) found a negative association between self-reported procrastination and affective well-being (but see Pychyl, Lee, Thibodeau, & Blunt, 2000).

In our own experience sampling study (Kaftan & Freund, 2017c), we sent questionnaires to participants at times they had planned to engage in goal pursuit (writing a thesis) and asked them to indicate how they perceived the alternative activities they were currently engaged in when procrastinating. One of the results was that a higher outcome focus on alternative activities was associated with a higher perceived importance, lower pleasantness, and less guilt. These changes in the perception of activities were also found in a second experience sampling study (Kaftan & Freund, 2017b) conducted in a different context (i.e., the sports domain) and may have important consequences for further goal pursuit. On the one hand, perceiving alternative activities as more important and less guilt-evoking can be maladaptive because it may sustain procrastination. On the other hand, the lower pleasantness may serve as a stop signal to procrastination. By affecting further goal pursuit, goal focus, then, might also affect subjective well-being. Overall, these studies suggest that the relationship between goal focus and procrastination is complex and that more research is needed to better understand the dynamics underlying procrastination.

Conclusion

Whether goal attainment leads to subjective well-being depends on different factors, such as what goals are selected (e.g. approach or avoidance goals) and whether they meet basic needs (e.g., competence). Although people usually experience a form of contentment when they attain their goals, they are trapped in a hedonic treadmill running in vain for greater happiness as the effects of goal achievement are more short-lived than they might wish. Given that we typically spend much longer on pursuing our goals than experiencing their attainment, it seems crucial to investigate processes linking goal pursuit to subjective well-being. We maintain that goal focus is a promising construct for understanding the mechanisms of how goal pursuit may increase (or decrease) subjective well-being. Growing evidence supports the view that adopting a process focus (i.e., focusing on the way of goal pursuit) is associated with positive affect and subjective well-being, and leads to a higher persistence and goal attainment, even when encountering difficulties or setbacks during goal pursuit.

References

- Adriaanse, M. A., Oettingen, G., Gollwitzer, P. M., Hennes, E. P., de Ridder, D. T. D., & de Wit, J. B. F. (2010). When planning is not enough: Fighting unhealthy snacking habits by mental contrasting with implementation intentions (MCII). *European Journal of Social Psychology, 40*, 1277–1293. <https://doi.org/10.1002/ejsp.730>
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 11–39). Berlin: Springer.

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32, 665–683. <https://doi.org/10.1111/j.1559-1816.2002.tb00236.x>
- Amir, O., & Ariely, D. (2008). Resting on laurels: The effects of discrete progress markers as subgoals on task performance and preferences. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 34, 1158–1171. <https://doi.org/10.1037/a0012857>
- Austin, J. T., & Vancouver, J. B. (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin*, 120, 338–375. <https://doi.org/10.1037/0033-2909.120.3.338>
- Bagozzi, R. P., Baumgartner, H., & Pieters, R. (1998). Goal-directed emotions. *Cognition and Emotion*, 12, 1–26. <https://doi.org/10.1080/026999398379754>
- Bamberg, S. (2002). Helfen Implementationsintentionen, die Lücke zwischen Absicht und Verhalten zu überwinden? *Zeitschrift Für Sozialpsychologie*, 33, 143–155. <https://doi.org/10.1024//0044-3514.33.3.143>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Bandura, A. (2013). The role of self-efficacy in goal-based motivation. In E. A. Locke & G. P. Latham (Eds.), *New developments in goal setting and task performance* (pp. 147–157). New York, NY: Routledge.
- Blunt, A. K., & Pychyl, T. A. (2005). Project systems of procrastinators: a personal project-analytic and action control perspective. *Personality and Individual Differences*, 38, 1771–1780. <https://doi.org/10.1016/j.paid.2004.11.019>
- Bonanno, G. A., Wortman, C. B., Lehman, D. R., Tweed, R. G., Haring, M., Sonnega, J., ... Nesse, R. M. (2002). Resilience to loss and chronic grief: A prospective study from preloss to 18-months postloss. *Journal of Personality and Social Psychology*, 83, 1150–1164. <https://doi.org/10.1037/0022-3514.83.5.1150>
- Bonanno, G. A., Wortman, C. B., & Nesse, R. M. (2004). Prospective patterns of resilience and maladjustment during widowhood. *Psychology and Aging*, 19, 260–271. <https://doi.org/10.1037/0882-7974.19.2.260>
- Brandtstädter, J., & Greve, W. (1994). The aging self: Stabilizing and protective processes. *Developmental Review*, 14, 52–80. <https://doi.org/10.1006/drev.1994.1003>
- Brandtstädter, J., & Renner, G. (1990). Tenacious goal pursuit and flexible goal adjustment: Explication and age-related analysis of assimilative and accommodative strategies of coping. *Psychology and Aging*, 5, 58–67. <https://doi.org/10.1037/0882-7974.5.1.58>
- Brickman, P., & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M. H. Appley (Ed.), *Adaptation-level theory* (pp. 287–305). New York, NY: Academic Press.
- Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology*, 36, 917–927. <https://doi.org/10.1037/0022-3514.36.8.917>
- Brunstein, J. C. (1993). Personal goals and subjective well-being: A longitudinal study. *Journal of Personality and Social Psychology*, 65, 1061–1070. <https://doi.org/10.1037/0022-3514.65.5.1061>
- Brunstein, J. C., Schultheiss, O. C., & Grässman, R. (1998). Personal goals and emotional well-being: The moderating role of motive dispositions. *Journal of Personality and Social Psychology*, 75, 494–508. <https://doi.org/10.1037/0022-3514.75.2.494>
- Bye, D., Pushkar, D., & Conway, M. (2007). Motivation, interest, and positive affect in traditional and nontraditional undergraduate students. *Adult Education Quarterly*, 57, 141–158. <https://doi.org/10.1177/0741713606294235>
- Caprara, G. V., & Steca, P. (2005). Affective and social self-regulatory efficacy beliefs as determinants of positive thinking and happiness. *European Psychologist*, 10(4), 275–286. <https://doi.org/10.1027/1016-9040.10.4.275>
- Carver, C. S., & Baird, E. (1998). The American dream revisited: Is it what you want or why you want it that matters? *Psychological Science*, 9, 289–292. <https://doi.org/10.1111/1467-9280.00057>
- Carver, C. S., Pozo, C., Harris, S. D., Noriega, V., Scheier, M. F., Robinson, D. S., ... Clark, K. C. (1993).

- How coping mediates the effect of optimism on distress: A study of women with early stage breast cancer. *Journal of Personality and Social Psychology*, 65, 375–390. <https://doi.org/10.1037/0022-3514.65.2.375>
- Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, 97, 19–35. <https://doi.org/10.1037/0033-295X.97.1.19>
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York, NY: Cambridge University Press.
- Chow, S.-M., Ram, N., Boker, S. M., Fujita, F., & Clore, G. (2005). Emotion as a thermostat: Representing emotion regulation using a damped oscillator model. *Emotion*, 5, 208–225. <https://doi.org/10.1037/1528-3542.5.2.208>
- Coats, E. J., Janoff-Bulman, R., & Alpert, N. (1996). Approach versus avoidance goals: Differences in self-evaluation and well-being. *Personality and Social Psychology Bulletin*, 22, 1057–1067. <https://doi.org/10.1177/01461672962210009>
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal performance*. New York, NY: Harper & Row.
- Davidson, R. J. (1994). Asymmetric brain function, affective style, and psychopathology: The role of early experience and plasticity. *Development and Psychopathology*, 6, 741–758. <https://doi.org/10.1017/S0954579400004764>
- De Witt Huberts, J. C., Evers, C., & De Ridder, D. T. D. (2012). License to sin: Self-licensing as a mechanism underlying hedonic consumption. *European Journal of Social Psychology*, 42, 490–496. <https://doi.org/10.1002/ejsp.861>
- De Witt Huberts, J. C., Evers, C., & De Ridder, D. T. D. (2014). “Because I am worth it”: A theoretical framework and empirical review of a justification-based account of self-regulation failure. *Personality and Social Psychology Review*, 18, 119–138. <https://doi.org/10.1177/1088868313507533>
- Deci, E. L., & Ryan, R. M. (2000). The “ what” and “ why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268.
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie Canadienne*, 49, 182–185.
- Dewitte, S., & Lens, W. (2000). Exploring volitional problems in academic procrastinators. *International Journal of Educational Research*, 33, 733–750. [https://doi.org/10.1016/S0883-0355\(00\)00047-1](https://doi.org/10.1016/S0883-0355(00)00047-1)
- Dewitte, S., & Schouwenburg, H. C. (2002). Procrastination, temptations, and incentives: The struggle between the present and the future in procrastinators and the punctual. *European Journal of Personality*, 16, 469–489. <https://doi.org/10.1002/per.461>
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542–575. <https://doi.org/10.1037/0033-2909.95.3.542>
- Diener, E., Lucas, R. E., & Oishi, S. (2002). Subjective well-being: The science of happiness and life satisfaction. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 63–73). Oxford: Oxford University Press.
- Diener, E., Lucas, R. E., & Scollon, C. N. (2006). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. *American Psychologist*, 61, 305–314. <https://doi.org/10.1037/0003-066X.61.4.305>
- Diener, E., Pressman, S. D., Hunter, J., & Delgado-Chase, D. (2017). If, why, and when subjective well-being influences health, and future needed research. *Applied Psychology: Health and Well-Being*, 9, 133–167. <https://doi.org/10.1111/aphw.12090>
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276–302. <https://doi.org/10.1037/0033-2909.125.2.276>
- Dietz, F., Hofer, M., & Fries, S. (2007). Individual values, learning routines and academic procrastination. *British Journal of Educational Psychology*, 77, 893–906. <https://doi.org/10.1348/000709906X169076>
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53, 109–132.
- Elliot, A. J. (2008). *Handbook of approach and avoidance motivation*. New York, NY: Psychology Press.
- Elliot, A. J., & Sheldon, K. M. (1997). Avoidance achievement motivation: A personal goals analysis. *Journal of Personality and Social Psychology*, 73, 171–185. <https://doi.org/10.1037/0022-3514.73.1.171>
- Elliot, A. J., Sheldon, K. M., & Church, M. A. (1997). Avoidance personal goals and subjective well-being.

- Personality and Social Psychology Bulletin*, 23, 915–927. <https://doi.org/10.1177/0146167297239001>
- Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, 51, 1058–1068. <https://doi.org/10.1037/0022-3514.51.5.1058>
- Emmons, R. A. (1996). Striving and feeling: Personal goals and subjective well-being. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 313–337). New York, NY: Guilford Press.
- Escalas, J. E., & Luce, M. F. (2004). Understanding the effects of process-focused versus outcome-focused thought in response to advertising. *Journal of Consumer Research*, 31, 274–285. <https://doi.org/10.1086/422107>
- Fee, R. L., & Tangney, J. P. (2000). Procrastination: A means of avoiding shame or guilt? *Journal of Social Behavior and Personality*, 15, 167–184.
- Ferguson, Y. L., & Sheldon, K. M. (2010). Should goal-strivers think about “why” or “how” to strive? It depends on their skill level. *Motivation and Emotion*, 34, 253–265. <https://doi.org/10.1007/s11031-010-9174-9>
- Ferrari, J. R. (1991). Compulsive procrastination: Some self-reported characteristics. *Psychological Reports*, 68, 455–458. <https://doi.org/10.2466/pr0.1991.68.2.455>
- Ferrari, J. R. (1994). Dysfunctional procrastination and its relationship with self-esteem, interpersonal dependency, and self-defeating behaviors. *Personality and Individual Differences*, 17, 673–679. [https://doi.org/10.1016/0191-8869\(94\)90140-6](https://doi.org/10.1016/0191-8869(94)90140-6)
- Ferrari, J. R. (2000). Procrastination and attention: Factor analysis of attention deficit, boredomness, intelligence, self-esteem, and task delay frequencies. *Journal of Social Behavior and Personality*, 15, 185–196.
- Fishbach, A., & Choi, J. (2012). When thinking about goals undermines goal pursuit. *Organizational Behavior and Human Decision Processes*, 118, 99–107. <https://doi.org/10.1016/j.obhdp.2012.02.003>
- Fishbach, A., Friedman, R. S., & Kruglanski, A. W. (2003). Leading us not into temptation: Momentary allurements elicit overriding goal activation. *Journal of Personality and Social Psychology*, 84, 296–309. <https://doi.org/10.1037/0022-3514.84.2.296>
- Fishbein, M. (1980). A theory of reasoned action: Some applications and implications. In H. Howe & M. Page (Eds.), *Nebraska Symposium on Motivation* (pp. 65–116). Lincoln, NB: University of Nebraska Press.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Flett, G. L., Stainton, M., Hewitt, P. L., Sherry, S. B., & Lay, C. (2012). Procrastination automatic thoughts as a personality construct: an analysis of the procrastinatory cognitions inventory. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 30, 223–236. <https://doi.org/10.1007/s10942-012-0150-z>
- Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 302–329). New York, NY: Russell Sage Foundation.
- Freund, A. M. (2007). Differentiating and integrating levels of goal representation: A life-span perspective. In B. R. Little, K. Salmela-Aro, & S. D. Phillips (Eds.), *Personal project pursuit: Goals, action, and human flourishing* (pp. 247–270). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Freund, A. M., & Baltes, P. B. (1998). Selection, optimization, and compensation as strategies of life management: Correlations with subjective indicators of successful aging. *Psychology and Aging*, 13, 531–543. <https://doi.org/10.1037/0882-7974.13.4.531>
- Freund, A. M., & Ebner, N. C. (2005). The aging self: Shifting from promoting gains to balancing losses. In W. Greve, K. Rothermund, & D. Wentura (Eds.), *The adaptive self: Personal continuity and intentional self-development* (pp. 185–202). Ashland, OH: Hogrefe & Huber.
- Freund, A. M., & Hennecke, M. (2012). Changing eating behaviour vs. losing weight: The role of goal focus for weight loss in overweight women. *Psychology & Health*, 27(sup2), 25–42. <https://doi.org/10.1080/08870446.2011.570867>
- Freund, A. M., & Hennecke, M. (2015). On means and ends: The role of goal focus in successful goal pursuit. *Current Directions in Psychological Science*, 24, 149–153. <https://doi.org/10.1177/0963721414559774>
- Freund, A. M., Hennecke, M., & Mustafić, M. (2012). On gains and losses, means and ends: Goal

- orientation and goal focus across adulthood. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 280–300). New York, NY: Oxford University Press.
- Freund, A. M., Hennecke, M., & Riediger, M. (2010). Age-related differences in outcome and process goal focus. *European Journal of Developmental Psychology*, 7, 198–222. <https://doi.org/10.1080/17405620801969585>
- Freund, A. M., & Riediger, M. (2006). Goals as building blocks of personality and development in adulthood. In D. K. Mroczek & T. D. Little (Eds.), *Handbook of personality development* (pp. 353–372). Mahwah, NJ, US: Erlbaum.
- Fujita, K., & Roberts, J. C. (2010). Promoting prospective self-control through abstraction. *Journal of Experimental Social Psychology*, 46, 1049–1054. <https://doi.org/10.1016/j.jesp.2010.05.013>
- Fujita, K., & Sasota, J. A. (2011). The effects of construal levels on asymmetric temptation-goal cognitive associations. *Social Cognition*, 29, 125–146. <https://doi.org/10.1521/soco.2011.29.2.125>
- Fujita, K., Trope, Y., Liberman, N., & Levin-Sagi, M. (2006). Construal levels and self-control. *Journal of Personality and Social Psychology*, 90, 351–367. <https://doi.org/10.1037/0022-3514.90.3.351>
- Giguère, B., Sirois, F. M., & Vaswani, M. (2016). Delaying things and feeling bad about it? A norm-based approach to procrastination. In F. M. Sirois & T. A. Pychyl (Eds.), *Procrastination, health, and well-being* (1st ed., pp. 189–212). London, UK: Academic Press.
- Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. *American Psychologist*, 54, 493–503. <https://doi.org/10.1037/0003-066X.54.7.493>
- Gollwitzer, P. M., & Brandstätter, V. (1997). Implementation intentions and effective goal pursuit. *Journal of Personality and Social Psychology*, 73, 186–199. <https://doi.org/10.1037/0022-3514.73.1.186>
- Gollwitzer, P. M., Fujita, K., & Oettingen, G. (2004). Planning and the implementation of goals. In R. F. Baumeister (Ed.), *Handbook of self-regulation: Research, theory, and applications* (pp. 211–228). New York, NY: Guilford Press.
- Gollwitzer, P. M., Heckhausen, H., & Ratajczak, H. (1990). From weighing to willing: Approaching a change decision through pre- or postdecisional mentation. *Organizational Behavior and Human Decision Processes*, 45, 41–65. [https://doi.org/10.1016/0749-5978\(90\)90004-S](https://doi.org/10.1016/0749-5978(90)90004-S)
- Hamama, L., Ronen, T., Shachar, K., & Rosenbaum, M. (2013). Links between stress, positive and negative affect, and life satisfaction among teachers in special education schools. *Journal of Happiness Studies*, 14, 731–751. <https://doi.org/10.1007/s10902-012-9352-4>
- Heckhausen, J. (1999). *Developmental regulation in adulthood: Age-normative and sociostructural constraints as adaptive challenges*. New York, NY: Cambridge University Press.
- Heckhausen, J., & Schulz, R. (1995). A life-span theory of control. *Psychological Review*, 102, 284–304. <https://doi.org/10.1037/0033-295X.102.2.284>
- Heckhausen, J., Wrosch, C., & Schulz, R. (2010). A motivational theory of life-span development. *Psychological Review*, 117, 32–60. <https://doi.org/10.1037/a0017668>
- Hennecke, M., & Freund, A. M. (2014). Identifying success on the process level reduces negative effects of prior weight loss on subsequent weight loss during a low-calorie diet. *Applied Psychology: Health and Well-Being*, 6(1), 48–66. <https://doi.org/10.1111/aphw.12021>
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York, NY: Guilford Press.
- Houser-Marko, L., & Sheldon, K. M. (2008). Eyes on the prize or nose to the grindstone? The effects of level of goal evaluation on mood and motivation. *Personality and Social Psychology Bulletin*, 34, 1556–1569. <https://doi.org/10.1177/0146167208322618>
- Howell, A. J., & Watson, D. C. (2007). Procrastination: Associations with achievement goal orientation and learning strategies. *Personality and Individual Differences*, 43, 167–178. <https://doi.org/10.1016/j.paid.2006.11.017>
- Hsee, C. K., & Abelson, R. P. (1991). Velocity relation: Satisfaction as a function of the first derivative of outcome over time. *Journal of Personality and Social Psychology*, 60, 341–347. <https://doi.org/10.1037/0022-3514.60.3.341>
- James, W. (1890). *The principles of psychology*. New York, NY: Henry Holt.
- Kaftan, O. J., & Freund, A. M. (2017a). “Why am I doing this? ”: Deadlines increase outcome focus for

focal and alternative activities. Manuscript in preparation.

Kaftan, O. J., & Freund, A. M. (2017b). *How to pursue goals: An experience-sampling study on the role of goal focus during a high-intensity interval training in daily life*. Manuscript in preparation.

Kaftan, O. J., & Freund, A. M. (2017c). *A motivational perspective on academic procrastination: Goal focus affects how students perceive activities while procrastinating*. Manuscript in preparation.

Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, *65*, 410–422. <https://doi.org/10.1037/0022-3514.65.2.410>

Klinger, E. (1977). *Meaning and void: Inner experience and the incentives in people's lives*. Minneapolis, MN: University of Minnesota Press.

Klingsieck, K. B. (2013). Procrastination: When good things don't come to those who wait. *European Psychologist*, *18*, 24–34. <https://doi.org/10.1027/1016-9040/a000138>

Klingsieck, K. B., Grund, A., Schmid, S., & Fries, S. (2013). Why students procrastinate: A qualitative approach. *Journal of College Student Development*, *54*, 397–412. <https://doi.org/10.1353/csd.2013.0060>

Klug, H. J. P., & Maier, G. W. (2015). Linking goal progress and subjective well-being: A meta-analysis. *Journal of Happiness Studies*, *16*, 37–65. <https://doi.org/10.1007/s10902-013-9493-0>

Krause, K., & Freund, A. M. (2014a). Delay or procrastination – A comparison of self-report and behavioral measures of procrastination and their impact on affective well-being. *Personality and Individual Differences*, *63*, 75–80. <https://doi.org/10.1016/j.paid.2014.01.050>

Krause, K., & Freund, A. M. (2014b). How to beat procrastination: The role of goal focus. *European Psychologist*, *19*, 132–144. <https://doi.org/10.1027/1016-9040/a000153>

Krause, K., & Freund, A. M. (2016). It's in the means: Process focus helps against procrastination in the academic context. *Motivation and Emotion*, *40*, 422–437. <https://doi.org/10.1007/s11031-016-9541-2>

Kruger, J., Wirtz, D., Van Boven, L., & Altermatt, T. W. (2004). The effort heuristic. *Journal of Experimental Social Psychology*, *40*, 91–98.

Kruglanski, A. W., Köpetz, C., Bélanger, J. J., Chun, W. Y., Orehek, E., & Fishbach, A. (2013). Features of multifinality. *Personality and Social Psychology Review*, *17*, 22–39. <https://doi.org/10.1177/1088868312453087>

Kruglanski, A. W., Shah, J. Y., Fishbach, A., Friedman, R., Chun, W. Y., & Sleeth-Keppler, D. (2002). A theory of goal systems. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 331–378). San Diego, CA: Academic Press.

Labroo, A. A., & Kim, S. (2009). The “instrumentality” heuristic: Why metacognitive difficulty is desirable during goal pursuit. *Psychological Science*, *20*, 127–134. <https://doi.org/10.1111/j.1467-9280.2008.02264.x>

Larsen, R. J. (2000). Toward a science of mood regulation. *Psychological Inquiry*, *11*(3), 129–141. https://doi.org/10.1207/S15327965PLI1103_01

Lent, R. W., Singley, D., Sheu, H.-B., Gainor, K. A., Brenner, B. R., Treistman, D., & Ades, L. (2005). Social cognitive predictors of domain and life satisfaction: exploring the theoretical precursors of subjective well-being. *Journal of Counseling Psychology*, *52*(3), 429–442. <https://doi.org/10.1037/0022-0167.52.3.429>

Liberman, N., & Dar, R. (2009). Normal and pathological consequences of encountering difficulties in monitoring progress toward goals. In G. B. Moskowitz & H. Grant (Eds.), *The psychology of goals* (pp. 277–303). New York, NY: Guilford Press.

Little, B. R. (1983). Personal projects: A rationale and method for investigation. *Environment and Behavior*, *15*, 273–309. <https://doi.org/10.1177/0013916583153002>

Little, B. R. (1989). Personal projects analysis: Trivial pursuits, magnificent obsessions, and the search for coherence. In D. M. Buss & N. Cantor (Eds.), *Personality psychology: Recent trends and emerging directions* (pp. 15–31). New York, NY: Springer.

Little, B. R. (2005). Personality science and personal projects: Six impossible things before breakfast. *Journal of Research in Personality*, *39*, 4–21. <https://doi.org/10.1016/j.jrp.2004.09.003>

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.

- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, *57*, 705–717. <https://doi.org/10.1037/0003-066X.57.9.705>
- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2003). Reexamining adaptation and the set point model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology*, *84*, 527–539. <https://doi.org/10.1037/0022-3514.84.3.527>
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, *71*, 616–628. <https://doi.org/10.1037/0022-3514.71.3.616>
- Luhmann, M., Schimmack, U., & Eid, M. (2011). Stability and variability in the relationship between subjective well-being and income. *Journal of Research in Personality*, *45*, 186–197. <https://doi.org/10.1016/j.jrp.2011.01.004>
- Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: Multicultural validation studies. *The Journal of Psychology*, *139*, 439–457. <https://doi.org/10.3200/JRLP.139.5.439-457>
- Magen, E., & Gross, J. J. (2007). Harnessing the need for immediate gratification: Cognitive reconstrual modulates the reward value of temptations. *Emotion*, *7*, 415–428. <https://doi.org/10.1037/1528-3542.7.2.415>
- Martin, T. R., Flett, G. L., Hewitt, P. L., Krames, L., & Szanto, G. (1996). Personality correlates of depression and health symptoms: A test of a self-regulation model. *Journal of Research in Personality*, *30*, 264–277. <https://doi.org/10.1006/jrpe.1996.0017>
- McCown, B., Blake, I. K., & Keiser, R. (2012). Content analyses of the beliefs of academic procrastinators. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *30*, 213–222.
- McCrea, S. M., Liberman, N., Trope, Y., & Sherman, S. J. (2008). Construal level and procrastination. *Psychological Science*, *19*, 1308–1314. <https://doi.org/10.1111/j.1467-9280.2008.02240.x>
- McIntosh, W. D., & Martin, L. L. (1992). The cybernetics of happiness: The relation of goal attainment, rumination, and affect. In *Emotion and social behavior* (pp. 222–246). Thousand Oaks, CA: Sage Publications, Inc.
- Milgram, N. A., Mey-Tal, G., & Levison, Y. (1998). Procrastination, generalized or specific, in college students and their parents. *Personality and Individual Differences*, *25*, 297–316. [https://doi.org/10.1016/S0191-8869\(98\)00044-0](https://doi.org/10.1016/S0191-8869(98)00044-0)
- Oettingen, G. (1996). Positive fantasy and motivation. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 236–259). New York, NY: Guilford Press.
- Oettingen, G., Mayer, D., Timur Sevincer, A., Stephens, E. J., Pak, H., & Hagenah, M. (2009). Mental contrasting and goal commitment: The mediating role of energization. *Personality and Social Psychology Bulletin*, *35*, 608–622. <https://doi.org/10.1177/0146167208330856>
- Omodei, M. M., & Wearing, A. J. (1990). Need satisfaction and involvement in personal projects: Toward an integrative model of subjective well-being. *Journal of Personality and Social Psychology*, *59*, 762–769. <https://doi.org/10.1037/0022-3514.59.4.762>
- Orbell, S., & Sheeran, P. (2000). Motivational and volitional processes in action initiation: A field study of the role of implementation intentions. *Journal of Applied Social Psychology*, *30*, 780–797. <https://doi.org/10.1111/j.1559-1816.2000.tb02823.x>
- Ordóñez, L. D., Schweitzer, M. E., Galinsky, A. D., & Bazerman, M. H. (2009). Goals gone wild: The systematic side effects of overprescribing goal setting. *The Academy of Management Perspectives*, *23*, 6–16. <https://doi.org/10.5465/AMP.2009.37007999>
- Palys, T. S., & Little, B. R. (1983). Perceived life satisfaction and the organization of personal project systems. *Journal of Personality and Social Psychology*, *44*, 1221–1230. <https://doi.org/10.1037/0022-3514.44.6.1221>
- Parks–Stamm, E. J., Gollwitzer, P. M., & Oettingen, G. (2007). Action control by implementation intentions: Effective cue detection and efficient response initiation. *Social Cognition*, *25*, 248–266. <https://doi.org/10.1521/soco.2007.25.2.248>
- Pham, L. B., & Taylor, S. E. (1999). From thought to action: Effects of process- versus outcome-based mental simulations on performance. *Personality and Social Psychology Bulletin*, *25*, 250–260. <https://doi.org/10.1177/0146167299025002010>
- Pychyl, T. A., Lee, J. M., Thibodeau, R., & Blunt, A. K. (2000). Five days of emotion: An experience

- sampling study of undergraduate student procrastination. *Journal of Social Behavior and Personality*, *15*, 239–254.
- Rheinberg, F. (1989). *Zweck und Tätigkeit* [Purpose and action]. Göttingen, Germany: Hogrefe.
- Richardson, M., Abraham, C., & Bond, R. (2012). Psychological correlates of university students' academic performance: A systematic review and meta-analysis. *Psychological Bulletin*, *138*, 353–387. <https://doi.org/10.1037/a0026838>
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *The Journal of Psychology*, *91*, 93–114. <https://doi.org/10.1080/00223980.1975.9915803>
- Rogers, R. W. (1983). Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. T. Cacioppo & R. Petty (Eds.), *Social psychophysiology* (pp. 153–176). New York, NY: Guilford Press.
- Ruehlman, L. S., & Wolchik, S. A. (1988). Personal goals and interpersonal support and hindrance as factors in psychological distress and well-being. *Journal of Personality and Social Psychology*, *55*, 293–301. <https://doi.org/10.1037/0022-3514.55.2.293>
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*, 1069–1081. <https://doi.org/10.1037/0022-3514.57.6.1069>
- Scheier, M. F., Matthews, K. A., Owens, J. F., Magovern, G. J., Craig, R., Anne, R., & Carver, C. S. (1989). Dispositional optimism and recovery from coronary artery bypass surgery: The beneficial effects on physical and psychological well-being. *Journal of Personality and Social Psychology*, *57*, 1024–1040. <https://doi.org/10.1037/0022-3514.57.6.1024>
- Schmeichel, B. J., & Vohs, K. (2009). Self-affirmation and self-control: Affirming core values counteracts ego depletion. *Journal of Personality and Social Psychology*, *96*, 770–782. <https://doi.org/10.1037/a0014635>
- Seligman, M. E. P. (1991). *Learned optimism*. New York, NY: Knopf.
- Senécal, C., Koestner, R., & Vallerand, R. J. (1995). Self-regulation and academic procrastination. *The Journal of Social Psychology*, *135*(5), 607–619. <https://doi.org/10.1080/00224545.1995.9712234>
- Shah, J. Y., Friedman, R., & Kruglanski, A. W. (2002). Forgetting all else: On the antecedents and consequences of goal shielding. *Journal of Personality and Social Psychology*, *83*, 1261–1280. <https://doi.org/10.1037/0022-3514.83.6.1261>
- Shah, J. Y., & Kruglanski, A. W. (2000). Aspects of goal networks: Implications for self-regulation. In M. Boekaerts, M. Zeidner, & P. R. Pintrich (Eds.), *Handbook of self-regulation* (pp. 85–110). San Diego, CA: Academic Press.
- Shah, J. Y., & Kruglanski, A. W. (2003). When opportunity knocks: Bottom-up priming of goals by means and its effects on self-regulation. *Journal of Personality and Social Psychology*, *84*, 1109–1122. <https://doi.org/10.1037/0022-3514.84.6.1109>
- Shah, J. Y., & Kruglanski, A. W. (2008). Structural dynamics: The challenge of change in goal systems. In J. Y. Shah & W. L. Gardner (Eds.), *Handbook of motivation science* (pp. 217–229). New York, NY: Guilford Press.
- Sheeran, P. (2002). Intention—behavior relations: A conceptual and empirical review. *European Review of Social Psychology*, *12*, 1–36. <https://doi.org/10.1080/14792772143000003>
- Sheeran, P., Trafimow, D., & Armitage, C. J. (2003). Predicting behaviour from perceived behavioural control: Tests of the accuracy assumption of the theory of planned behaviour. *British Journal of Social Psychology*, *42*, 393–410. <https://doi.org/10.1348/014466603322438224>
- Sheldon, K. M., Abad, N., Ferguson, Y., Gunz, A., Houser-Marko, L., Nichols, C. P., & Lyubomirsky, S. (2010). Persistent pursuit of need-satisfying goals leads to increased happiness: A 6-month experimental longitudinal study. *Motivation and Emotion*, *34*, 39–48. <https://doi.org/10.1007/s11031-009-9153-1>
- Sheldon, K. M., & Houser-Marko, L. (2001). Self-concordance, goal attainment, and the pursuit of happiness: Can there be an upward spiral? *Journal of Personality and Social Psychology*, *80*, 152–165. <https://doi.org/10.1037/0022-3514.80.1.152>
- Sirois, F. M. (2014). Procrastination and stress: Exploring the role of self-compassion. *Self and Identity*, *13*, 128–145. <https://doi.org/10.1080/15298868.2013.763404>
- Sirois, F. M. (2016a). Introduction: Conceptualizing the relations of procrastination to health and well-

- being. In F. M. Sirois & T. A. Pychyl (Eds.), *Procrastination, health, and well-being* (1st ed., pp. 3–20). London, UK: Academic Press.
- Sirois, F. M. (2016b). Procrastination, stress, and chronic health conditions: A temporal perspective. In F. M. Sirois & T. A. Pychyl (Eds.), *Procrastination, health, and well-being* (1st ed., pp. 67–92). London, UK: Academic Press.
- Sirois, F. M., & Kitner, R. (2015). Less adaptive or more maladaptive? A meta-analytic investigation of procrastination and coping. *European Journal of Personality*, *29*, 433–444. <https://doi.org/10.1002/per.1985>
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology*, *70*, 321–335. <https://doi.org/10.1037/0022-3514.70.2.321>
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, *31*, 503–509. <https://doi.org/10.1037/0022-0167.31.4.503>
- Stead, R., Shanahan, M. J., & Neufeld, R. W. J. (2010). “I’ll go to therapy, eventually”: Procrastination, stress and mental health. *Personality and Individual Differences*, *49*, 175–180. <https://doi.org/10.1016/j.paid.2010.03.028>
- Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, *133*, 65–94. <https://doi.org/10.1037/0033-2909.133.1.65>
- Steel, P., & König, C. J. (2006). Integrating theories of motivation. *Academy of Management Review*, *31*, 889–913. <https://doi.org/10.5465/AMR.2006.22527462>
- Thompson, D. V., Hamilton, R. W., & Petrova, P. K. (2009). When mental simulation hinders behavior: The effects of process-oriented thinking on decision difficulty and performance. *Journal of Consumer Research*, *36*, 562–574. <https://doi.org/10.1086/599220>
- Trope, Y., & Fishbach, A. (2000). Counteractive self-control in overcoming temptation. *Journal of Personality and Social Psychology*, *79*, 493–506. <https://doi.org/10.1037/0022-3514.79.4.493>
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, *110*, 403–421. <https://doi.org/10.1037/0033-295X.110.3.403>
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, *117*, 440–463. <https://doi.org/10.1037/a0018963>
- Vallacher, R. R., & Wegner, D. M. (1989). Levels of personal agency: Individual variation in action identification. *Journal of Personality and Social Psychology*, *57*, 660–671. <https://doi.org/10.1037/0022-3514.57.4.660>
- Vallacher, R. R., Wegner, D. M., & Somoza, M. P. (1989). That’s easy for you to say: Action identification and speech fluency. *Journal of Personality and Social Psychology*, *56*, 199–208. <https://doi.org/10.1037/0022-3514.56.2.199>
- Webb, T. L., & Sheeran, P. (2004). Identifying good opportunities to act: Implementation intentions and cue discrimination. *European Journal of Social Psychology*, *34*, 407–419. <https://doi.org/10.1002/ejsp.205>
- Wiese, B. S. (2007). Successful pursuit of personal goals and subjective well-being. In B. R. Little, K. Salmela-Aro, & S. D. Phillips (Eds.), *Personal project pursuit: Goals, action, and human flourishing* (pp. 301–328). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Wiese, B. S., & Freund, A. M. (2005). Goal progress makes one happy, or does it? Longitudinal findings from the work domain. *Journal of Occupational and Organizational Psychology*, *78*, 287–304. <https://doi.org/10.1348/096317905X26714>
- Wigfield, A., & Eccles, J. S. (2000). Expectancy–value theory of achievement motivation. *Contemporary Educational Psychology*, *25*, 68–81. <https://doi.org/10.1006/ceps.1999.1015>
- Woike, B., Lavezzary, E., & Barsky, J. (2001). The influence of implicit motives on memory processes. *Journal of Personality and Social Psychology*, *81*, 935–945.
- Wrosch, C., & Miller, G. E. (2009). Depressive symptoms can be useful: Self-regulatory and emotional benefits of dysphoric mood in adolescence. *Journal of Personality and Social Psychology*, *96*, 1181–1190. <https://doi.org/10.1037/a0015172>
- Wrosch, C., Miller, G. E., Scheier, M. F., & de Pontet, S. B. (2007). Giving up on unattainable goals: benefits for health? *Personality and Social Psychology Bulletin*, *33*, 251–265. <https://doi.org/10.1177/0146167206294905>

Wrosch, C., Scheier, M. F., Miller, G. E., Schulz, R., & Carver, C. S. (2003). Adaptive self-regulation of unattainable goals: Goal disengagement, goal reengagement, and subjective well-being. *Personality and Social Psychology Bulletin*, *29*, 1494–1508.

Zimmerman, B. J., & Kitsantas, A. (1997). Developmental phases in self-regulation: Shifting from process goals to outcome goals. *Journal of Educational Psychology*, *89*, 29–36. <https://doi.org/10.1037/0022-0663.89.1.29>

Zimmerman, B. J., & Kitsantas, A. (1999). Acquiring writing revision skill: Shifting from process to outcome self-regulatory goals. *Journal of Educational Psychology*, *91*, 241–250. <https://doi.org/10.1037/0022-0663.91.2.241>



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