Avoidance motivation is resource depleting

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A fundamental distinction in scientific analyses of behavior is that between approach motivation and avoidance motivation. Approach motivation represents energization by and/or physical or psychological direction toward an incentive or reward (i.e., an appetitive object, event, possibility), whereas avoidance motivation represents energization by and/or physical or psychological direction away from a threat or punishment (i.e., an aversive object, event, possibility; Elliot, 2008a). This distinction between approach and avoidance motivation has been present in scholarly thought for millennia (since Democritus, 460-370 B.C.E.) and in scientific psychology since the advent of the discipline in both Europe (Wundt, 1887) and the United States (James, 1890). It is popular in the contemporary psychological literature, as illustrated by the recent publication of edited books and journal special issues (Eder, Elliot, & Harmon-Jones, in press; Elliot, 2008b; Ryan, 2006). It is being applied to many different types of psychological constructs and phenomena, and it is being operationalized in myriad ways in diverse areas of inquiry. In short, the approach-avoidance motivational distinction is long-lasting and generative.

A considerable amount of research has been conducted in the past two decades on the implications of approach and avoidance motivation, especially in achievement and social contexts and in the context of pursuing personal goals for daily life. Much of this literature has focused specifically on avoidance motivation, as manipulated by environmental cues and as assessed via self-reported goal commitments. The extant research suggests that avoidance motivation is beneficial for some types of tasks (e.g., those requiring low-level persistence, vigilant attention to detail, and minimal mental manipulation; De Dreu, Bass, & Nijstad, 2008; Elliot & Aarts, 2011; Freidman & Förster, 2002; Koch, Holland, & Van Knippenberg, 2008; Roskes, De Dreu, & Nijstad, 2012), for certain types of life situations (e.g., when one seeks to quite smoking; Suls & Fletcher, 1985; Worth, Sullivan, Hertel, & Rothman, 2005), and in the

short run (Freund, 2006; Heckman et al., 2004). However, the research also indicates that avoidance motivation often has negative consequences for performance and well-being outcomes, particularly for tasks requiring flexible cognition and mental manipulation (Elliot & Church, 1997; Freidman & Förster, 2005; Hembree, 1988; Maier, Elliot, & Lichtenfeld, 2008; Mehta & Zhu, 2009), and especially in the long run (Gable, 2006; Roskes et al., 2012; Tamir & Deiner, 2008).

In the present article, we consider why avoidance motivation often has inimical consequences, focusing on the affective, cognitive, and behavioral processes commonly evoked by such motivation. The central emphasis of the present chapter is on the link between avoidance motivation and the depletion of the self's executive resources. We will lay out the reasons to expect a link between these two concepts, and then overview some recent research that indirectly and directly supports this relation.[1]

Avoidance motivational processes

As noted above, avoidance motivation represents energization and/or direction with regard to a threat or punishment. Accordingly, in avoidance motivation, an aversive object, event, or possibility serves as the centerpiece or hub of self-regulation. This structural aspect of avoidance motivation has a number of important implications.

First, the inherent focus on an aversive object, event, or possibility in avoidance regulation evokes a host of problematic psychological processes. These processes include: *affective* processes such as anticipatory worry, ongoing emotionality, and hyper-reactivity to negative feedback (Elliot & McGregor, 1999; Eysenck, Derakshan, Santos, & Calvo, 2007; Gable, Reis, & Elliot, 2000); *perceptual-cognitive* processes such as enhanced likelihood of threat appraisals, heightened vigilance for and adherence to negative information, and difficulty

sustaining focus due to distracting self-worth concerns (Covington, 1992; Derryberry & Reed, 2008; Elliot & Reis, 2003; Urdan & Midgley, 2001); and *behavioral* processes such as overstriving to ensure that negative outcomes are avoided, selecting easy tasks in which failure is not possible, and withdrawing effort to protect oneself from demonstrating low ability (Alicke & Sedikides, 2009; Elliot & Church, 2003; Murray, Derrick, Leder, & Holmes, 2008; Righetti, Finkenauer, & Rusbult, 2011). Second, the aforementioned processes are often experienced as particularly urgent and all-consuming, given that, perceptually, "bad is stronger than good" (Baumeister, Bratslavsky, Finkenaur, & Vohs, 2001; David, Green, Martin, & Suls, 1997).

Third, evading an aversive object, event, or possibility is not something that individuals typically feel intrinsically drawn to or excited about, but instead is something that one feels externally forced or internally pressured to do. As such, avoidance regulation is commonly experienced as a requirement or obligation -- something one *must* do, rather than something one *gets to* do (Carver, Sutton, & Scheier, 2000; Elliot & Sheldon, 1998; Higgins, 1997; Ryan & Deci, 2006). Fourth, avoidance motivation provides the person with something to move or stay away from, but it does not provide the person with something to move toward. Thus, avoidance motivation does not provide specific guidance in a concrete direction that can both help one make progress and yield a clear and satisfying sense of progress (Carver & Scheier, 1998; Elliot, Sheldon, & Church, 1997). Fifth, the structure of avoidance motivation only allows one to at best avoid the absence of an aversive outcome, it does not allow one to accomplish the presence of a desired outcome. Accordingly, the most gratifying experience that one can have upon successfully enacting avoidance motivation is the feeling of relief, rather than the joy and excitement of successfully enacting approach motivation (Carver, 2006 Higgins, Shah, & Friedman, 1997). Poignantly stated, avoidance motivation merely allows one to survive, as it

does not yield the type of positive psychological experiences needed to truly thrive and develop to one's full capacity (Elliot, 2006; McFarland & Miller, 1994). In sum, the very nature of avoidance motivation would appear to place inherent limits on its effectiveness and would seem likely to exact a heavy toll on the motivated individual. Before elaborating on this point, we provide a brief overview of the notion of executive resources and their depletion.

Executive resources and their depletion

The self has several functions, one of which is the executive function. The executive function of the self is the active agent that "makes decisions, initiates actions, and in other ways exerts control over both self and environment (Baumeister, 1998, p. 712). It is the aspect of the self that engages in the self-regulation of behavior. Several models of self-regulation contend that the executive function relies on a common, limited, depletable pool of cognitive and volitional resources (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Cavallo, Holmes, Fitzsimons, Murray, & Wood, 2012; Hirst & Kalmar, 1987; Inzlicht, McKay, & Aronson, 2006; Muraven & Baumeister, 2000; Schmader & Johns, 2003; Schmeichel, 2007; Vohs & Heatherton, 2000). Engaging in an act of self-regulation is posited to require cognitive capacity and volitional energy, and this capacity/energy expenditure temporarily diminishes the amount of capacity/energy available for subsequent acts of regulation. Accordingly, a self-regulatory act that consumes capacity/energy from the limited available pool is posited to place the individual in a state of resource depletion (i.e., "ego depletion;" Baumeister et al., 1998, p. 1252).

A rapidly expanding body of empirical work is accumulating in support of this resource depletion model of the executive function of the self (for reviews, see Baumeister, Vohs, & Tice, 2007; Hagger, Wood, Stiff, & Chatzisarantis, 2010; Inzlicht & Schmeichel, 2012). The paradigm used in a large portion of this research, the "two-task" paradigm, is as follows: Participants

engage in one act of self-regulation, such as managing their impulses or controlling their thoughts, and then engage in a second self-regulation task, such as solving challenging intellectual problems or persisting at a hand-grip activity. The common finding in this work is that performance on the second task is impaired, which is consistent with the notion that performance on the initial task depleted resources from a common pool that were no longer available when the second task was performed (Baumeister et al., 1998; Fischer, Greitemeyer, & Frey, 2008; Freeman & Muraven, 2010; Johns, Inzlicht, & Schmader, 2008; Schmeichel, 2007; Vohs, Baumeister, & Schmeichel, 2012). At the more general, trait, level of analysis, individuals who are dispositionally high in executive resources (cognitive capacity and/or volitional energy) have been found to be more effective in their interpersonal interactions and relationships, have better physical health and psychological well-being, and engage in more adaptive eating, drinking, and sexual behavior (Bertrams & Dickhäuser, 2009; Côté, Gyurak, & Levenson, 2010; Peluso, Ricciardelli, & Williams, 1999; Ryan & Frederick, 1997; Tangney, Baumeister, & Boone, 2004).

Avoidance motivation and resource depletion

Engaging in self-regulation of any sort expends executive resources because it requires mental control and volitional energy to mobilize and sustain effort, to select goals and strategies that serve one's enacted desires and fears, to shield perception and attention from the influx of competing demands, to monitor progress and adjust effort or attention as needed, to integrate and implement the processes necessary for effective task engagement, etcetera (Baumeister, 1998; Carver & Scheier, 1998; Fujita, 2011). Although all self-regulation expends resources to some degree, we posit that some forms of self-regulation are more depleting of executive resources than others.

In a recent article, Baumeister and Vohs (2007) stated that efficient and effective self-regulation entails the use of clear, well-defined standards, and indicated that self-regulation is made difficult when "ambiguous, uncertain, inconsistent, or conflicting" standards are used (p. 3). As detailed above, avoidance motivation does not afford clear, well-defined standards for efficient and effective regulation, and it also prompts processes that make self-regulation more arduous, more ambiguous, and, inherently, more aversive. Accordingly, we posited that avoidance-motivated self-regulation is likely to be particularly resource depleting (Oertig, Schüler, Brandstätter, Roskes, and Elliot, (in press); Roskes et al., 2012; Roskes, Elliot, Nijstad, and De Dreu (2013). In the following, we overview two lines of recent research that support this proposition, the first does so indirectly and the second does so more directly.

Avoidance motivation under time pressure. conducted a series of studies designed to examine the effects of working memory under time pressure on different types of performance tasks. Time pressure requires individuals to carefully monitor task progress and the remaining time available, and working under time pressure is commonly experienced as stressful. As such, time pressure consumes executive resources (Keinan, Friedland, Kahneman, & Roth, 1999; Kelly, Jackson, & Hutson-Cameaux, 1997). As noted above, we contend that avoidance-motivated self-regulation consumes an inordinate amount of cognitive and volitional resources. Accordingly, the combination of avoidance motivation and high time pressure would appear to represent a self-regulatory vulnerability, in that both are highly taxing of the limited executive resources available. In the Roskes et al. studies, we measured or manipulated type of motivation and manipulated level of time pressure and predicted that time pressure would have the strongest undermining influence on performance for avoidance-motivated individuals. Supportive data

would provide indirect evidence that avoidance motivation is indeed particularly depleting of executive resources.

In a first study (with seventy-seven university undergraduates from The Netherlands), we assessed individual differences in avoidance motivation, manipulated time pressure, and examined the interactive effect of dispositional avoidance motivation (low vs. high) and time pressure (low vs. high) on performance on a creativity task. We assessed avoidance motivation with Elliot and Thrash's (2010) avoidance temperament measure (sample item: "It is easy for me to imagine bad things that might happen to me"). Participants then completed the Remote Associates Test (RAT; Mednick, 1962), which is a creative insight task that requires individuals to identify associations between words that initially seem unrelated to each other;[2] they were given three words such as care, swimming, and cue, and the task was to find a word related to each (pool). The RAT items were presented under either low time pressure (18 second per item) or high time pressure (8 seconds per item). Time pressure was a between-subjects variable.

The results revealed a main effect of time pressure, such that participants working under high time pressure performed worse on the RAT (β = -.36, p = .001). In addition, avoidance temperament was a negative predictor of RAT performance (β = -.30, p = .005), indicating that those higher in avoidance temperament did worse on the test. Most importantly, there was an avoidance temperament x time pressure interaction (B = -.53, p = .036). Simple slope analyses revealed that time pressure had no influence on performance for those low in avoidance temperament (β = -.33, p = .33), but did have an influence on performance for those high in avoidance temperament (β = -1.04, p < .001). Specifically, for those high in avoidance temperament, time pressure undermined performance attainment (see Figure 1).

In a subsequent study (with seventy-eight university undergraduates from The Netherlands), we manipulated, rather than measured, avoidance (and approach) motivation and examined the interactive effect of motivation (avoidance vs. approach) and time pressure (low vs. high) on performance on basic math problems. We manipulated motivation by varying the point structure for each randomly presented problem. For some problems, participants could lose a point if they provided an incorrect answer, but a correct answer would have no bearing on their score (avoidance condition); for other problems, participants could win a point if they provided a correct answer, but an incorrect answer would have not bearing on their score (approach condition). Participants were informed of the type of problem forthcoming by presenting a minus sign (avoidance) or a plus sign (approach) on the screen immediately before the problem appeared. The problems were eight straightforward math items such as 114/2 – 58 = ? (answer: -1). The problems were presented under either low time pressure (18 second per item) or high time pressure (8 seconds per item). Motivation was a within-subjects variable and time pressure was a between-subjects variable.

The results revealed a main effect of time pressure, such that participants working under high time pressure performed worse on the math problems ($F = 10.34$, $p = .002$); there was no main effect of avoidance motivation ($F = .02$, $p = .96$). Most importantly, there was a motivation x time pressure interaction ($F = 5.03$, $p = .028$). Simple slope analyses revealed that time pressure had no influence on performance for those in the approach motivation condition ($F = 1.95$, $p = .17$), but did have an influence on performance for those in the avoidance motivation condition ($F = 14.58$, $p < .001$). Specifically, for those in the avoidance motivation condition, time pressure undermined performance attainment (see Figure 2).

In a final study (with seventy-nine university undergraduates from the U.S.), we manipulated both motivation (avoidance vs. approach) and time pressure (low vs. high) and examined their interactive effect on performance on the d2 task (Brickenkamp & Zillman, 1998). This task was chosen because it requires careful, vigilant attention to detail, which should be an ideal fit to the type of processes evoked by avoidance motivation. We manipulated motivation using a variant of the owl-cheese maze manipulation from Friedman and Förster (2005). In this manipulation, participants are asked to look at a maze in which a cartoon mouse is depicted either trying to escape from an owl that hovers over the maze (avoidance condition) or trying to find a piece of cheese at the end of the maze (approach condition). They are instructed to write a vivid story from the mouse's perspective about "the terrible death of the mouse" involving the mouse being caught, killed, and eaten (avoidance condition) or about the "happiest day in the life of the mouse" involving the mouse getting closer to the cheese, finding it, and eventually eating it. After writing the story, participants completed a computerized version of the d2 task, which entailed finding and cancelling target characters (e.g., a "d" with two dashes placed above and/or below it) that were interspersed with similar non-target characters (e.g., a "d" with a different number of dashes above and/or below it). The test was comprised of 14 series of characters, each of which contained two rows of 48 characters each. The task was presented under either low time pressure (20 second per item) or high time pressure (13 seconds per item). Both motivation and time pressure were between-subjects variables.

The results revealed a main effect for time pressure, such that participants working under high time pressure performed worse on the task ($F = 276.36$, $p < .001$); there was no main effect of avoidance motivation ($F = .22$, $p = .64$). Most importantly, there was a motivation x time pressure interaction ($F = 4.89$, $p = .030$). Simple slope analyses revealed that time pressure

undermined performance in the approach motivation condition (F = 106.31, p < .001), but this effect was even stronger for those in the avoidance motivation condition (F = 177.23, p < .001.

In sum, the findings from the Roskes et al. (2013) research provide support for the idea that avoidance motivation is particularly depleting of executive resources. Performance under avoidance motivation appears to be fragile due to the amount of resources necessary to regulate in this fashion. A situational factor that additionally expends or limits resources, such as time pressure, exposes this fragility, as manifest in impaired performance. The empirical evidence from these studies indirectly supports the link between avoidance motivation and resource depletion; importantly, this is also the case for nearly all of the empirical work in the burgeoning "ego depletion" literature. That is, the "two-task" paradigm used in the majority of research in this area documents resource depletion indirectly by demonstrating impaired performance on a second task following an initial act of self-regulation. A few researchers have operationalized resource depletion more directly by assessing blood glucose levels (Gailliot & Baumeister, 2007; Gailliot et al., 2007), and a few have utilized direct self-report measures of executive resources (Bertrams et al., 2011; Kerr, 2004). It is this latter approach that we utilized in the next set of studies that we overview.

Avoidance goal pursuit and self-regulatory resources. Oertig et al. (in press) conducted two studies designed to examine the concurrent and longitudinal influence of pursuing daily avoidance goals on self-regulatory resources. Daily goal regulation in general demands considerable cognitive and volitional resources. In accord with our analysis of the structure of avoidance motivation and processes emanating from avoidance regulation discussed above, we posit that avoid goal pursuit is related to a reduction in the perceived availability of regulatory resources. This decrement in resources may have deleterious downstream implications for

phenomenological outcomes such as subjective well-being (SWB), as prior research has shown a negative relation between resource depletion and well-being (Ciarocco, Sommer, & Baumeister, 2001; Forstmeier, Drobetz, & Maercker, 2011; Kehr, 2004; Tangney et al., 2004). We examined this possibility in the second of the two studies, specifically testing self-regulatory resources as a mediator of the avoidance goal → SWB link.

In a first study (with two hundred and eighty-three university undergraduates from Switzerland), we assessed participants' daily avoidance (relative to approach) goals and their perceptions of their self-regulatory resources in the middle of a semester (Time 1), and then assessed their perceptions of their self-regulatory resources again one month later. We measured avoidance goals with a broad range of twenty-two goal statements that focused on academics, affiliation, and leisure. The goal statements juxtaposed avoidance-framed and an approach-framed variants of the same content (e.g., "I really do not want to neglect my hobby activities [sports, music, theatre]" vs. "I really would like to have regular time for my hobby activities [sports, music, theatre]"), and participants were asked to select the variant that best matched their own goal pursuit (an option of "neither" was also provided). An avoidance goals measure was created by dividing the number of avoidance goal selections by the total number of goals selected. We assessed participants' self-regulatory resources with a brief, four-item, face-valid measure focused on their current levels of self-discipline, concentration, stress-resistance, and physical energy.

The results revealed a concurrent negative relation between daily avoidance goals and self-regulatory resources (r = -.21, $p < .001$); the higher the number of avoidance goals that participants pursued, the lower their perception of their resources. Most importantly, daily avoidance goals were a longitudinal predictor of change in self-regulatory resources across the

one month period (β = -.11, p = .016). Participants pursuing a higher number of avoidance goals evidenced a decrease in perceived resources over the month-long period.

In a subsequent study (with one hundred and thirty-two university undergraduates from Switzerland), we examined the same set of relations investigated in the first study, but also included Time 1 and Time 2 SWB assessments to allow the following model to be tested: daily avoidance goals → self-regulatory resources → SWB. We assessed participants' daily avoidance (relative to approach) goals, their perceptions of their self-regulatory resources, and their perceptions of their SWB one month prior to the end of a fall semester (Time 1), and then assessed their perceptions of their self-regulatory resources and SWB again one month later at the end of the semester (and the beginning of the Christmas holiday). We measured avoidance goals with a broad range of thirty-one goal statements that, as in the first study, focused on academics, affiliation, and leisure, but also focused on issues specific to the end of semester and the beginning of the Christmas period (e.g., completing class projects, taking exams, doing Christmas shopping, attending to family responsibilities). The manner of presenting and selecting the goals statements was the same as in the prior study. The measure of self-regulatory resources was the same as that used in the prior study. We assessed SWB with a composite score derived from measures of positive affect, negative affect (reversed), and life satisfaction.

As in the prior study, the results revealed a concurrent negative relation between daily avoidance goals and self-regulatory resources (r = -.40, p < .001); the higher the number of avoidance goals that participants pursued, the lower their perception of their resources. The results also revealed a concurrent negative relation between daily avoidance goals and SWB (r = -.33, p < .001); the higher the number of avoidance goals that participants pursued, the lower their perceptions of SWB. More importantly, daily avoidance goals were a longitudinal predictor

of change in self-regulatory resources across the one month period ($\beta = -.30$, $p < .001$). Participants pursuing a higher number of avoidance goals evidenced a decrease in perceived resources over the month-long period. In addition, daily avoidance goals were a longitudinal predictor of change in SWB across the one month period ($\beta = -.23$, $p = .001$). Participants pursuing a higher number of avoidance goals evidenced a decrease in perceived SWB over the month-long period. Change in self-regulatory resources were a positive predictor of change in SWB, indicating that participants experiencing an decrease in resources also experienced a decrease in SWB over the month-long period. Finally, meditational analyses supported the proposed model. There was an indirect effect of avoidance goals on SWB via resources ($\beta = -.09$, $p < .001$) and the direct relation between avoidance goals and SWB dropped 52.2% when resources were taken into account (see Figure 3). In sum, the findings from these studies provide direct support for the idea that avoidance motivation is particularly depleting of executive resources, and the second study demonstrates that this resource depletion has important implications for well-being over time.

Further considerations and broader implications

The studies that we have overviewed represent both laboratory and field investigations of the link between avoidance motivation and the depletion of executive resources. In the rapidly expanding literature on resource depletion, nearly all of the research that has been conducted has utilized experimental methodologies under controlled laboratory settings. In light of this, the Oertig et al. (in press) findings may be seen as particularly noteworthy, in that they document the real-world generalizabilty of the resource depletion concept to the realm of everyday goal pursuit (see also Kehr, 2004). Furthermore, nearly all of the extant research in this literature has focused on the influence of self-regulation on resource depletion in the short-run, usually by testing the

influence of an initial, brief (e.g., ten minute) act of self-regulation on resource depletion on a second, equally brief act of regulation. Oertig et als' longitudinal data demonstrates that ongoing regulation that is engaged in periodically over a protracted time (in this case, a month) also depletes resources. Indeed, it is possible that resource depletion effects accumulate over time, and may even be reciprocal and cyclical in nature. For example, pursuing daily avoidance goals leads to resource depletion, this initial resource depletion prompts additional self-protection concerns that prompt increased avoidance goal pursuit (Hobfoll, 1989; Schnelle et al., 2010), and this, in turn, leads to further resource depletion. Over time and repeated cycles, this process would undoubtedly lead to a pervasive and deep sense of fatigue, with likely downstream negative consequence for physical and mental well-being, and perhaps even chronic and clinical failures of self-regulation (e.g., obesity, alcohol abuse; Cox, Klinger, & Blount, 1991; Dickson, 2006; Dickson & MacLeod, 2004).

Self-control is a form of self-regulation that entails overriding a naturally occurring, prepotent response to a stimulus (Muraven & Baumeister, 2000; Schmeichel, 2007). The vast majority of the existing conceptual and empirical work on resource depletion focuses on this particular form of regulation (Fujita, 2011), which Muraven (2008) characterized as "an avoidance-oriented situation" (p. 769). We concur that self-control is a specific form of avoidance goal regulation, and think that viewing it in this way may clarify why it is such a difficult endeavor. Avoidance goals have two components -- 1) an aversive object, event, or possibility that is the focal point of the goal, and 2) a volitional commitment to move or stay away from that aversive object, event, or possibility (Elliot, 2008a). For the prototypic avoidance goal, an inherently aversive object, event, or possibility is appraised as undesirable, and the volitional commitment represents a natural propensity to evade the undesirable object, event, or

possibility. Self-control is different from the prototypic avoidance goal in that it requires an additional volitional step: an inherently appetitive object, event, or possibility much be reappraised as undesirable, and a volitional commitment is then made to move or stay away from it. Thus, the process of self-control may be seen as an unusually difficult form of avoidance regulation, and it is likely that this type of regulation is even more demanding than the prototypic, modal variant of avoidance regulation (Oertig et al., in press). From this standpoint, the prevalence of self-control failure should come as no surprise.

In addition to contributing to the resource depletion literature, the conceptual ideas and empirical work described herein also contribute to the literature on approach-avoidance motivation, especially research on avoidance goal pursuit. As noted earlier, avoidance goal pursuit has been shown to have inimical consequences for many outcomes, including performance, intrinsic motivation, and, of course (as detailed herein), SWB (for reviews, see Elliot, 2008a; Elliot & Friedman, 2007). A number of different psychological processes have been shown to mediate these avoidance goal effects, including anxiety, task distraction, controlled volition, stress generation, and poor goal progress (for reviews, see Elliot & Friedman, 2007; Elliot, Thrash, & Murayama, 2011). We think it likely that each of these process variables has deleterious consequences for outcomes because (at least in part) they deplete executive resources. For example, controlled volition (i.e., feeling internal or external pressure to exert effort -- "I *must* or *ought* to do this") likely mediates the inimical influence of avoidance goals on subjective well-being (Elliot & Sheldon, 1998), *because* this controlled volitional regulation is highly depleting of executive resources and leaves the person feeling worn out and unfulfilled. More generally, we contend that resource depletion may be seen as the proximal mediator of a broad array of negative avoidance goal effects, with avoidance goal pursuit evoking distal

meditational processes such as anxiety, task distraction, and controlled volition, that in turn depletes executive resources, that, finally, proximally predicts the negative outcomes (Oertig et al., in press). In this type of sequential meditational model, executive resource depletion is a final common pathway through which other mediators exert their inimical effects. Subsequent research would do well to put this integrative meditational model to empirical test.

Although we have concentrated nearly exclusively on the negative implications of avoidance motivation in this chapter, we hasten to add that avoidance motivation is not always deleterious for outcomes. Both approach motivation and avoidance motivation are clearly integral to and essential for effective psychological functioning in daily life. Empirical work on avoidance motivation has shown that it can be beneficial for certain types of tasks, in certain types of situations, and for certain types of individuals (Friedman & Förster, 2005; Higgins, 2000; Hong & Lee, 2008; Koch et al., 2008; Muraven & Slessareva, 2003; Tamir, 2005; Roskes et al., 2012; Seibt & Förster, 2004). However, and importantly, even when it is necessary and even when it is beneficial, it expends an inordinate amount of executive resources. As such, even when avoidance motivation is beneficial in the short run, it is simultaneously exacting a cost in spent resources that, if sustained, undoubtedly has residual negative consequences in the long-run (De Lange, Van Yperen, Van der Heijden, & Bal, 2010; Roskes et al., 2012; Ståhl, Van Laar, & Ellemers, 2012). In light of this, avoidance motivation seems best used (and encouraged) sparingly (Roskes, Elliot, Nijstad, & De Dreu, in press); problems ensue when it is hyper-activated and over-utilized which, research suggests, is common in achievement settings, social settings, and daily goal pursuits (Elliot, 2006).

In closing, the literatures on approach-avoidance motivation and on resource depletion have developed to the point that they are quite mature. Both literatures have contributed nicely to

our understanding of how the motivated self navigates and negotiates its way through the challenges of daily life. In this chapter, we have demonstrated how these two heretofore separate literatures may be integrated, with benefits for each. The essential message from this integration is that avoidance regulation is, simply put, exhausting.

Footnotes

1. This chapter draws heavily on conceptual ideas developed and empirical work conducted by Oertig, Schüler, Brandstätter, Roskes, and Elliot, (in press), and Roskes, Elliot, Nijstad, and De Dreu (2013).
2. In the experiments with the RAT, we used a thirty item measure that was divided, a priori, into three categories: 10 easy items, 10 moderately difficult items, and 10 difficult items. We expected to find results primarily on the moderately difficult items (see Roskes, De Dreu, & Nijstad, 2012), due to likely ceiling and floor effects for the easy and difficult items, respectively. This is indeed what we found; there was considerable predictive utility with the moderately difficult items and very few effects with the easy and difficult items. As such, we focus on the moderately difficult items in the text (interested readers should feel free to contact the second author for details on the findings for the easy and difficult items).

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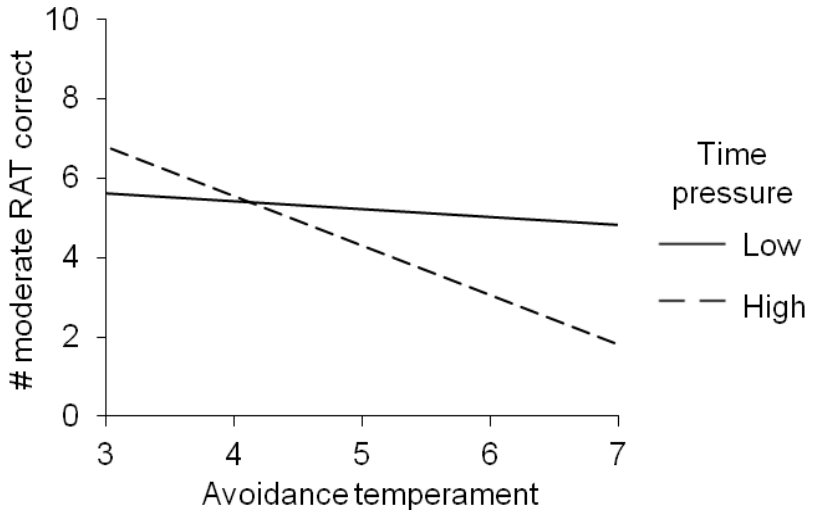

Figure 1. Relations between avoidance temperament and the number of correctly solved Remote Associates Task (RAT) items. Figure used by permission of the publisher (to be determined).

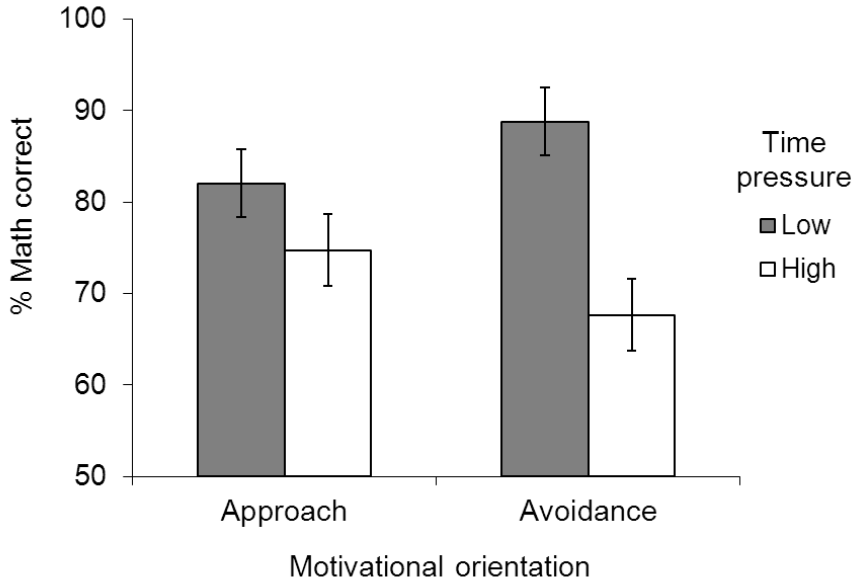

Figure 2. Percentage of correctly solved math items (+*SE*). Figure used by permission of the publisher (to be determined).

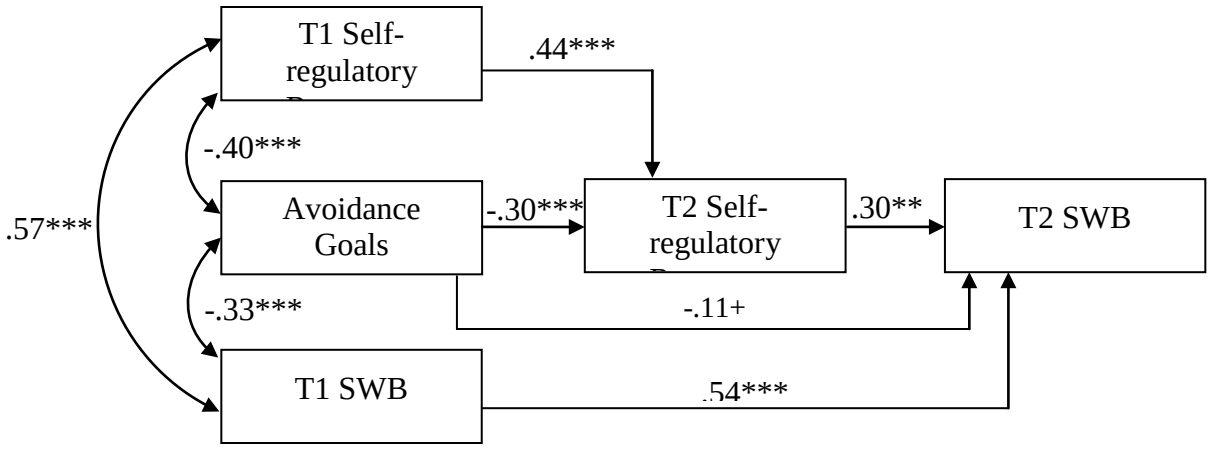

Figure 3. Standardized parameters for the hypothesized mediational model, with avoidance goals as the predictor, self-regulatory resources as the mediator and subjective well-being (SWB) as the dependent variable. + $p < .10$. ** $p < .01$. *** $p < .001$. Adapted figure used by permission of the publisher.