University of Groningen

Does the salience of possible selves mediate the impact of approach and avoidance temperaments on women's weight-loss dieting?

Dalley, Simon

Published in:
Personality and Individual Differences

DOI:
[10.1016/j.paid.2015.09.010](https://doi.org/10.1016/j.paid.2015.09.010)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2016

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Dalley, S. (2016). Does the salience of possible selves mediate the impact of approach and avoidance temperaments on women's weight-loss dieting? *Personality and Individual Differences*, 88, 267-271.
<https://doi.org/10.1016/j.paid.2015.09.010>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Does the salience of possible selves mediate the impact of approach and avoidance temperaments on women's weight-loss dieting?

Simon E. Dalley

Department of Social Psychology, University of Groningen, Grote Kruisstraat 2/1, 9712 TS Groningen, The Netherlands

ARTICLE INFO

Article history:

Received 4 March 2015

Received in revised form 17 August 2015

Accepted 4 September 2015

Available online 26 September 2015

Keywords:

Weight-loss dieting

Salience

Hoped-for thin self

Feared fat self

ABSTRACT

The salience of both a hoped-for thin self and a feared fat self was predicted to mediate the impact of respective approach and avoidance temperaments on weight-loss dieting (WLD). Further, that the mediation pathway from avoidance temperament and through a feared fat self would be stronger than that from approach temperament and through a hoped-for thin self. A convenience sample of 249 college women reported age, height and weight and completed measures of the salience of possible selves, concern for dieting and approach and avoidance temperaments. Bootstrap mediation revealed that only avoidance temperament exerted an impact on WLD through the salience of both possible selves. However, the mediation pathway through the feared fat self was stronger than that through the hoped-for thin self. The consequences for the research and prevention of unhealthy dieting and eating pathology in women are discussed.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

Research suggests that approach and avoidance processes play a critical role in the development and maintenance of eating pathology (Harrison, Treasure, & Smillie, 2011). Central to such processes is the influence of approach and avoidance temperaments: individual differences in the neurobiological sensitivity and reactivity to positive or reward stimuli (approach temperament) and negative or punishment stimuli (avoidance temperament) (Elliot & Thrash, 2010; Harrison et al., 2011). However, relatively little attention has been directed toward elucidating the social cognitive structures through which these temperaments exert their effects (Strauman & Wilson, 2014). Given that these structures may serve as important targets to treat and prevent pathology (Strauman, McCrudden, & Jones, 2010), this paper examines whether possible selves in the body image domain mediate approach and avoidance temperaments on a risk factor for eating pathology in young women: weight-loss dieting (WLD) (Haines & Neumark-Sztainer, 2006; Keel, Baxter, Heatherton, & Joiner, 2007).

Approach and avoidance temperaments can be conceptualized as initial bases for personality and the self-concept because they contribute to the shaping of an individual's affective, cognitive and behavioral adaptations to the social and physical environment (Rothbart, Ahadi, & Evans, 2000). One way in which this process is expressed is in how approach and avoidance temperaments orientate an individual to establish and maintain respective approach and avoidance goals in the self-concept (Caspi & Shiner, 2008; Elliot & Thrash, 2010). For example, a

predominant approach temperament, because it is experienced as being more sensitive and more reactive to potential rewards, is developmentally related to positive anticipation, as well as seeking out, engaging with, and persisting in challenging tasks (Rothbart et al., 2000; Rothbart & Huang, 2005). In contrast, a predominant avoidance temperament, because it is experienced as being sensitive and reactive to potential punishments, is developmentally related to the tendency to avoid exciting or potentially punishing situations (Rothbart & Huang, 2005).

Thus, over time, temperament helps shape what people like and dislike, what is valuable and important, and thus what they choose to do in the form of approach and avoidance goals (Elliot & Thrash, 2010; Rothbart et al., 2000). In contemporary western society women appear to possess influential approach and avoidance goals in the body image and WLD domains (Dalley & Buunk, 2011; Dalley, Toffanin, & Pollet, 2012). Specifically, these goals are in the form of possible selves, a hoped-for thin self and a feared fat self, and are the products of sociocultural forces that promote and reward thinness as well as punish and stigmatize fatness (Dalley et al., 2012; Markus & Nurius, 1986). However, since temperament is involved in the establishment of important and influential goals within the self-concept (Caspi & Shiner, 2008; Elliot & Thrash, 2010), it is reasonable to suggest that temperament serves such a function with regard to the hoped-for thin self and the feared fat self. Thus, given the rewards of thinness, approach temperament should facilitate the establishment and maintenance of a hoped-for thin self. Similarly, given the penalties associated with fatness, avoidance temperament should facilitate the establishment and maintenance of a feared fat self.

Goals may exert their influence on decision making and behavior to the degree that they are easily brought to mind or salient in the

E-mail address: s.e.dalley@rug.nl.

cognitive field (Kruglanski & Kopetz, 2009). Significantly, goals that are the most valued and important tend to be the most cognitively salient (Bargh, 1990). As a result it is predicted that approach and avoidance temperaments should exert their impact on WLD through the salience of the hoped-for thin self and the feared fat self, respectively. Specifically, with increasing approach temperament, the easier it should be to imagine a hoped-for thin self and the greater should be the WLD motivation. Moreover, with increasing avoidant temperament, the easier it should be to imagine a feared fat self (King & Raspin, 2004), the greater should also be the motivation to engage in WLD in order to avoid a feared fat self.

Taken together then, it is expected that in young women the salience of a hoped-for thin self and the salience of a feared fat self, should respectively mediate the impact of approach and avoidance temperaments on WLD. However, it is also expected that the mediation pathway from avoidance temperament will be stronger than that from approach temperament. This is because, firstly, a significant body of research suggests that negative entities, and in particular negative selves, are more motivationally potent than positive entities and positive selves (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Secondly, and following on from this, there is evidence within the body image literature pointing to a relatively greater influence of a feared fat self over a hoped-for thin self on women's body image concerns and dieting behaviors (Dalley et al., 2012).

Finally, it is also expected that the predicted mediating pathways will occur over and above body size (body mass index: BMI). This is because previous research has found that possible selves, in the form of a fat or overweight self and thin self, exert their effects on body image concerns over and above actual body size and shape (Dalley et al., 2012).

2. Method

2.1. Participants

Two hundred and forty nine college women volunteered as part of a convenience sample to participate in this cross-sectional study. The participants were recruited from the University central library. Six participants were excluded because their questionnaires were incomplete. The mean age of the remaining participants ($N = 243$) included in the statistical analysis was 21.73 years ($SD = 2.15$).

2.2. Measures

2.2.1. Approach and avoidance temperaments

The 12 item Approach–Avoidance Temperament Questionnaire (ATQ) (Elliot & Thrash, 2010) was used to operationalize Approach–Avoidance temperament. Six items assess approach temperament (e.g. “When I see an opportunity for something I like, I immediately get excited”, “Thinking about the things I want really energizes me.”) and 6 items assess avoidance temperament (e.g. “I react very strongly to bad experiences”, “When it looks like something bad could happen, I have a strong urge to escape”). Both sub-scales use a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Previous research has demonstrated satisfactory internal consistency for both the approach temperament subscale ($\alpha = .80$) and the avoidance temperament subscale ($\alpha = .80$). In this study Cronbach's alpha for the approach temperament subscale was .78 and .80 for the avoidance temperament subscale.

2.2.2. Salience of a possible self

Following King and Raspin (2004) salience was operationalized in terms of the ease and clarity with which goal representations are brought to mind. Participants read the following instructions: “From time to time we all think about the sort of body we could have in the future. Sometimes, what comes to mind is a hoped-for (feared) body that is thin or slim (fat or overweight). Please think about this hoped-for

(feared) body for a moment.” Participants were then asked to rate the two items on a Likert scale: “How clear is this hoped-for (feared) body in your mind?” 1 (*not at all clear*) to 9 (*very clear*) and “How frequently do you think about this hoped-for (feared) body?” 1 (*not at all frequently*) to 9 (*very frequently*). The correlation for the 2 items of the hoped-for thin self was $r = .59$, $p < .01$ and for the feared fat self items the correlation was $r = .63$, $p < .01$.

2.2.3. Weight-loss dieting

The Concern for Dieting subscale of the Revised Restraint Scale (Herman & Polivy, 1980) was used to operationalize weight-loss dieting. The scale assesses participants' motivation to restrain their eating using 6 items such as “How often are you eating?” and “How conscious are you of what you are eating?”. The total score is the sum of ratings with a possible range 0–19. The scale has previously been demonstrated to be a valid measure of dieting motivation, have satisfactory internal consistency, and be associated with eating disorder symptomatology (Van Strien, Herman, Engels, Larsen, & van Leeuwe, 2007). In this study Cronbach's alpha of the concern for dieting subscale was .76.

2.2.4. Body size

The body mass index (BMI) was used operationalize body size and was calculated by using the self-reported height and weight data.

2.3. Procedure

The study was granted permission by the department of social psychology ethical committee. After providing informed consent, participants completed measures of approach–avoidance temperament, accessibility of each possible self, and weight-loss dieting motivation and then provided age, height and weight. To prevent order effects the presentation of each possible self was counterbalanced. No monetary compensation was offered to participants.

2.4. Statistical analysis

Mediation was tested using Preacher and Hayes' macro PROCESS for SPSS (version 18). PROCESS is described by Hayes (2013) as a method for comparing multiple mediators. This procedure yields unstandardized path coefficients for a multiple mediator model and estimates 95% confidence intervals (CIs) of the indirect effects using a bootstrapping sample procedure. Assessing an indirect effect through a bootstrapping sample procedure is more reliable than testing significance of the mediation effects (Hayes, 2013). The model tested included approach and avoidance temperaments as predictors, salience of a feared fat self and salience of a hoped-for thin self as mediators, and WLD as the criterion variable. Self-reported BMI was included as a control variable.

3. Results

In contrast to expectations approach temperament was not significantly related to either the hoped-for thin self or WLD. An analysis of the proposed mediational impact of approach temperament through the hoped-for thin self on WLD was, therefore, no longer meaningful. The results presented thus reflect a reduced model as represented in Fig. 2.

The means and standard deviations of the variables and the correlations between them are presented in Table 1. A paired t-test revealed that the hoped-for thin self was significantly more salient than the feared fat self, $t(242) = 8.32$, $p < .001$.

3.1. Mediational analysis

Figs. 1 and 2 present the direct and indirect paths, respectively, of the mediation model tested in this analysis. The R^2 in the total effects model

Table 1.

Pearson correlations and the means and standard deviations of the measured variables of the sample.

Variable	1	2	3	4	5	M	SD
1. BMI	–					21.87	2.56
2. HOPE	.076	–				12.58	3.24
3. FEAR	.091	.334*	–			10.35	3.95
4. WLD	.202*	.287*	.384*	–		6.95	3.21
5. AVO	-.026	.167*	.368*	.254*	–	23.53	6.88

Note: N = 243. BMI: body mass index; HOPE: salience of the hoped-for thin self; FEAR: salience of the feared fat self; WLD: weight loss dieting; AVO: avoidance temperament; M: mean; SD: standard deviation.

* $p < .01$.

for WLD motivation was .11, $p < .001$. In the direct effects model: R^2 for WLD was .22, $p < .001$; R^2 for the salience of the feared fat self was .15, $p < .001$; and R^2 for the salience of the hoped-for thin self was .03, $p < .05$. Indirect effects and CI of the model are reported in Table 2. Mediation is said to occur if an indirect effect contributes significantly to the model estimation (determined by subtracting the direct effect from the total effect; Hayes, 2013).

Fig. 2 and Table 2 show that both the indirect effects from avoidance temperament were significant. Furthermore, a contrast analysis found that the mediating pathway through the feared fat self was significantly stronger than that through the hoped-for thin self (0.04, SE = 0.01, 95% CI [0.018, 0.067]).

4. Discussion

In a sample of college women it was predicted, firstly, that the salience of a hoped-for thin self and the salience of a feared fat self would mediate the impact of respective approach and avoidance temperaments on WLD. Secondly, that the mediating pathway from avoidance temperament would be stronger than that from approach temperament. Thirdly, that the mediating pathways would occur over and above the influence of BMI. Results were partially in line with these predictions.

In contrast to predictions the significant mediating pathways reported in this study both originated from avoidance temperament. Specifically, with increasing avoidance temperament there was greater salience of the feared fat self and, as a consequence, a higher motivation for WLD. Furthermore, with increasing avoidance temperament there was also a greater salience of the hoped-for thin self and greater motivation for WLD. The mediating pathway through the feared fat self was, as expected, stronger than that through the hoped-for thin self. Given that WLD is a risk factor for eating pathology (Keel et al., 2007; Haines & Neumark-Sztainer, 2006), the predominant role of avoidance temperament in this study converges with recent applications of reinforcement sensitivity theory, whereby high punishment sensitivity and low reward sensitivity were characteristics of those women with eating pathology (Harrison et al., 2011). The findings are also in line with recent research indicating that the hoped-for thin self and, most particularly, the feared fat self have significant influences on women's body image concerns (Dalley et al., 2013).

Possible selves are thought to be sociocultural constructs in the sense that the contemporary social milieu provides information that facilitates their formation and maintenance (Markus & Nurius, 1986). Yet the findings of this study suggest a contributing role for avoidance temperament with regard to establishing and maintaining motivationally potent possible selves in the body image domain. Presumably, with increasing avoidance temperament women are predominantly oriented toward, and affected by, aversive or potentially aversive contexts that communicate the negative consequences of possessing an overweight physique. Following on from this, and overtime, avoidance temperament in combination with such aversive contexts may lead to the establishment of a salient feared fat self which functions to energize and direct a woman's WLD. Given the proposed combined impact of temperament and context, it is suggested that researchers begin to explore more complex path models that take account of potential moderating variables, such as weight-based teasing history and media exposure.

Surprisingly, but less influentially, avoidance temperament also underpinned a motivationally influential and salient hoped-for thin self. While unexpected this finding does converge with research by Elliot and Thrash (2002). In this regard these authors reported a “valence override” process, whereby some individuals are able to override a general avoidance tendency by adopting more adaptive approach goals. According to Elliot and Thrash (2010) this process occurs when individuals perceive that they have sufficient psychological resources. It may be, therefore, that those women who have a history of successful dieting and/or who have a supportive social environment perceive the hoped-for thin self as more attainable and are therefore more able to construct and sustain a salient hoped-for thin self. With this in mind, future researchers could elucidate the role of variables, such as dieting success (Meule, Papies, & Kübler, 2012) and peer support, which theoretically moderate the impact of avoidance temperament on the hoped-for thin self.

It is important to note that the form of valence override described here is generally seen as a sensible and adaptive way of circumventing a less than optimal form of avoidance-oriented regulation (Elliot & Thrash, 2002). However, in light of the relationship between WLD and eating pathology (Keel et al., 2007; Haines & Neumark-Sztainer, 2006), it could be that, within the body image domain, this process of overriding an avoidance pre-disposition is maladaptive in the long term because of the extreme nature of the contemporary female thin-ideal. Future research is therefore required to examine whether this valence override process can be replicated and, if so, whether it contributes to disordered eating in young women.

In contrast to predictions, approach temperament was unrelated to both the hoped-for self and WLD. Accordingly, approach temperament does not appear to play a role in motivating WLD by establishing and maintaining a salient hoped thin self. There are two reasons which together, or on their own, could explain the divergent effects of approach and avoidant temperaments seen in this study. Firstly, it could be that such differences reflect the influence of positive and negative affect inherent in approach and avoidance temperaments, respectively. Thus the negative affect associated with avoidance temperament could direct a shift toward the adoption of salient lower level, domain specific goal pursuit in the form of possible selves (Carver & Scheier, 1998). In contrast, the positive affect associated with approach temperament could direct a shift toward the adoption and maintenance of salient higher level life goals. In support of this reasoning extraversion (an expression of approach temperament) and not neuroticism (an expression of avoidance temperament) is associated with the pursuit of potentially more functional higher order life goals such as career, family and specific lifestyles (Roberts & Robins, 2000). Following on from this, and more specifically, a recent review has reported weak to nonexistent associations between extraversion and eating pathology, but significant associations between neuroticism and eating pathology (Cassin & von Ranson, 2005).

Fig. 1. The total effect of avoidance temperament on weight-loss dieting. BMI is a control. Unstandardized coefficients are presented (standard errors are in parentheses). ** corresponds to a p value smaller than .001.

Fig. 2. The direct and indirect effects of avoidance temperament on weight-loss dieting, through possible self salience. FEAR: salience of the feared fat self. HOPE: salience of the hoped-for thin self. BMI is a control. Constituent paths of the specific indirect effects are also displayed. Specific indirect effects are reported in Table 2. Unstandardized coefficients are presented (standard errors are in parentheses). * corresponds to a p value less than .01, ** corresponds to a p value less than .001.

A second reason could be the role played by self-concept evaluation in mediating the impact of approach and avoidance temperaments on goal selection (Heimpel, Elliot, & Wood, 2005). According to this perspective, approach temperament evokes positive attributes and a positive self-evaluation resulting in the adoption of self-enhancing, approach oriented goals. In contrast, avoidance temperament evokes negative attributes and a negative self-evaluation resulting in the adoption of self-protective, avoidance oriented goals. Given that body dissatisfaction may be experienced by a majority of women in contemporary western societies (Grogan, 2008; Rodin, Silberstein, & Streigel-Moore, 1985), it could be speculated that within the body image domain the women in this study had no significant positive self-knowledge within the self-concept to draw on. As a result, approach temperament may not have been able to institute and sustain influential approach oriented goals in the body image domain. Avoidance temperament, however, because it had significant negative self-knowledge to draw on was able to maintain salient and motivationally potent possible selves in the body image domain. It is presumed that those women who believe that they have sufficient psychological resources are able to buffer such negative self-knowledge and thus adopt and sustain a salient hoped-for thin self. In support of this reasoning hope, as an emotion, is theorized to always originate from a perception that a negative situation (in this case, a negative self-evaluation of one's body) can be resolved (Lazarus, 1991).

Clearly the findings of this study indicate a need to further elucidate the mechanisms by which avoidance and approach temperaments differentially impact on possible selves and WLD. Moreover, the findings also suggest implications for further research and treatment of disordered eating. For women higher in avoidance temperament, the feared fat self would appear to be the predominant target of intervention for

health professionals. Yet it is important to note that the hoped-for thin self was an important proximate predictor of WLD. This would indicate a need to examine potential variables, such as the effortful control dimension of temperament (Rothbart & Huang, 2005), that could theoretically exert their impact on WLD through this possible self. Indeed it may be the case, that in a clinical population, different individuals may regulate their eating behavior around different possible selves, and so require differential interventions. However, it is speculated here that the feared fat self, because it is more motivationally potent than the hoped-for thin self, plays a greater role in the development and maintenance of prolonged food restriction that is characteristic of eating pathology. In, and with regard to motivational potency, the feared fat self although significantly less salient than the hoped-for thin self in this study was an equivalent proximal predictor of WLD. Furthermore, avoidance regulation, unlike approach regulation, is intimately associated with poor mental well-being (Elliot & Sheldon, 1998).

Finally, but also as expected, the significant mediating pathways from avoidance temperament occurred over and above the influence of BMI. This result is consistent with research indicating that mental images of the feared fat and hoped-for self can exert their effects on body image concerns irrespective of body size (Dalley & Buunk, 2011). It also underscores the pervasive influence of contemporary socio-cultural pressures that reward thinness and punish fatness, and which in so doing, contribute to the construction and maintenance of influential possible selves in the body image domain.

Several limitations of this research should be acknowledged. Firstly, the cross-sectional nature of this study would indicate that it cannot claim causal relations between the key constructs. It is worth noting, though, that the statistical procedures used in this study are frequently used to examine causal models. Secondly, while this study focused on a population characterized as being vulnerable to disordered eating, there is a need for a replication in a pathological population to establish the clinical implications of this study's findings. Thirdly, given the orthogonal nature of the approach and avoidance temperaments, it may be that particular subtypes of both possible selves may be more reflective of these predispositions. That is, a combination of a highly salient feared self and a low salient hoped-for thin self may be more representative of an avoidance temperament, and low salient feared fat self and highly hoped-for thin self may be more representative of an approach temperament. It may be useful, therefore, for future researchers to carry out a larger cross-sectional study that allows a cluster analysis to derive and test the potential influence of such 'pure' subtypes on dieting and eating disorder symptoms. Finally, given the high correlation between both possible selves, it may also be useful to increase the temporal space between each scale.

Table 2.
Indirect effects of avoidance temperament on weight-loss dieting through possible self salience.

	Point estimate	SE (boot)	Bootstrapping BC 95% CI	
			Lower	Upper
Indirect effects through FEAR				
Avoidance	.0457	.0132	.0234	.0759
Indirect effects through HOPE				
Avoidance	.0129	.0080	.0010	.0328

Note: N = 243. BC: bias corrected; CI: confidence interval; SE: standard error; FEAR: salience of the feared fat self; HOPE: salience of the hoped-for thin self. Unstandardized coefficients are presented. Parameters based on 5000 bootstrap samples. N = 243.

In conclusion this study suggests a significant role for avoidance temperament in contributing to the establishment and maintenance of possible selves that function to direct women's WLD. These social cognitive structures can serve as important proximate targets of intervention in both the treatment and prevention of unhealthy restrictive eating practices and related eating pathology (Strauman et al., 2014). Future research is required to confirm these findings in both clinical and non-clinical populations. Results nevertheless suggest that clinicians and researchers take more account of the feared fat self in the development and maintenance of pathological body image concerns and disordered eating in young women.

Acknowledgments

I am very grateful to Tina Hamacher, Linda Kersten, Kiki Nierop, and Lisette Wijbenga for their invaluable help in data collection. I also thank two anonymous reviewers for their constructive and insightful commentary.

References

- Bargh, J. A. (1990). Auto-motives: Preconscious determinants of social interaction. In E. T. Higgins, & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior*, Vol. 2. (pp. 93–130). Guilford Press: New York.
- Baumeister, R.F., Bratslavsky, E., Finkenauer, C., & Vohs, K.D. (2001). Bad is stronger than good. *Review of General Psychology*, 54, 323–370.
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behaviour*. Cambridge University Press: New York, NY.
- Caspi, A., & Shiner, R. (2008). Temperament and personality. In M. Rutter, D.V.M. Bishop, D.S. Pine, S. Scott, J. Stevenson, E. Taylor, & A. Thapar (Eds.), *Rutter's child and adolescent psychiatry* (pp. 182–198) (5th ed.). Oxford, UK: Blackwell Publishing.
- Cassin, S.E., & von Ranson, K.M. (2005). Personality and eating disorders: A decade in review. *Clinical Psychology Review*, 25, 895–916.
- Dalley, S.E., & Buunk, A.P. (2011). The motivation to diet in young women: Fear is stronger than hope. *European Journal of Social Psychology*, 41, 672–680.
- Dalley, S.E., Toffanin, P., & Pollet, T.V. (2012). Dietary restraint in college women: Fear of an imperfect fat self is stronger than hope of a perfect thin self. *Body Image*, 9, 441–447.
- Dalley, S. E., Pollet, T. V., & Vidal, J. (2013). Body size and body esteem: The mediating role of possible self expectancy. *Body Image*, 10, 411–414.
- Elliot, A.J., & Sheldon, K.M. (1998). Avoidance personal goals and the personality–illness relationship. *Journal of Personality and Social Psychology*, 75, 1282–1299.
- Elliot, A.J., & Thrash, T.M. (2002). Approach–avoidance motivation in personality: Approach and avoidance temperament and goals. *Journal of Personality and Social Psychology*, 82, 804–818.
- Elliot, A.J., & Thrash, T.M. (2010). Approach and avoidance temperament as basic dimensions of personality. *Journal of Personality*, 78, 865–906.
- Grogan, S. (2008). *Understanding body dissatisfaction in men, women and children*. New York, NY: Routledge.
- Haines, J., & Neumark-Sztainer, D.R. (2006). Prevention of obesity and eating disorders: A consideration of shared risk factor. *Health Education Research: Theory and Practice*, 21, 770–782.
- Harrison, A., Treasure, J., & Smillie, L.D. (2011). Approach and avoidance motivation in eating disorders. *Psychiatry Research*, 188, 396–401.
- Hayes, A.F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Heimpel, S.A., Elliot, A.J., & Wood, J.V. (2005). Basic personality dispositions, self-esteem, and personal goals: An approach–avoidance perspective. *Journal of Personality*, 74, 1293–1319.
- Herman, C.P., & Polivy, J. (1980). Restrained eating. In A.J. Stunkard (Ed.), *Obesity* (pp. 208–225). Philadelphia: Saunders.
- Keel, P.J., Baxter, M.G., Heatherton, T.F., & Joiner, T.E. (2007). A 20 year longitudinal study of body weight, dieting, and eating disorder symptoms. *Journal of Abnormal Psychology*, 116, 422–432.
- King, L.A., & Raspin, C. (2004). Lost and found possible selves, subjective well-being, and ego development in divorced women. *Journal of Personality*, 72, 603–632.
- Kruglanski, A.W., & Kopetz, C. (2009). What is so special (and nonspecial) about goals: A view from the cognitive perspective. In G.B. Moskowitz, & H. Grant (Eds.), *The psychology of goals* (pp. 27–55). New York, NY: Guilford.
- Lazarus, R. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press.
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954–969.
- Meule, A., Papies, E.K., & Kübler, A. (2012). Differentiating between successful and unsuccessful dieters. Validity and reliability of the Perceived Self-Regulatory Success in Dieting Scale. *Appetite*, 58, 822–826.
- Roberts, B. W., & Robins, R. W. (2000). Broad dispositions, broad aspirations: The intersection of personality traits and major life goals. *Personality and Social Psychology Bulletin*, 26, 1284–1296.
- Rodin, J., Silberstein, L., & Streigel-Moore, R. (1985). Women and weight: A normative discontent. In T.B. Sonderegger (Ed.), *Nebraska symposium on motivation: Psychology and gender* (pp. 267–307). Lincoln: University of Nebraska Press.
- Rothbart, A.K., Ahadi, S.A., & Evans, D.E. (2000). Temperament and personality: Origins and outcomes. *Journal of Personality and Social Psychology*, 78, 122–135.
- Rothbart, M. K., & Huang, J. (2005b). Temperament. In A. J. Elliot, C. S. Dweck (Eds.), *Handbook of competence & motivation* (pp. 167–184). New York, NY: Guilford Press.
- Strauman, T. J., McCrudden, M. C., & Jones, N. P. (2010). Self-regulation and psychopathology: Toward an integrative perspective. In J. E. Maddux, & J. P. Tangney (Eds.), *Social psychological foundations of clinical psychology*. (pp. 447–473). New York, NY: Guilford.
- Strauman, T. J., & Wilson, W. A. (2014). Individual differences in approach and avoidance: Behavioral activation/inhibition and regulatory focus as distinct levels of analysis. In R. H. Hoyle (Ed.), *Handbook of personality and self-regulation*. (pp. 84–113). John Wiley & Sons: Chichester, UK.
- Van Strien, T., Herman, C.P., Engels, R.C.M.E., Larsen, J.K., & van Leeuwe, J.F.J. (2007). Construct validation of the restraint scale in normal weight and overweight females. *Appetite*, 49, 109–121.