26 Traits and the self: toward an integration

Michael D. Robinson and Constantine Sedikides

In his influential text, William James (1890) devoted separate chapters to the self and to its habits. His chapter on the self highlighted the multifaceted nature of the self-concept, including in material, social and spiritual domains. By contrast, his chapter on habits highlighted their role in understanding dispositional differences. Whether functional or dysfunctional, habits are likely to persist over time. Such considerations led James to suggest that personality, understood in terms of dispositional habits, is relatively fixed by the age of thirty.

James' (1890) separate treatments of the self and its habits may have contributed to divergent streams of research in empirical psychology. Self researchers (who are primarily social psychologists) often operate under the assumption that the self is multifaceted, malleable, and low in cross-situational consistency (McGuire and McGuire 1988). By contrast, trait researchers (who are primarily personality psychologists) have converged on the idea that there are a few basic dimensions of personality that are quite stable and consistent across situations (Benet-Martinez and John 1998). This tension between malleable and stable views was brought to a sharp focus with Mischel's (1968) critique of the trait construct. Although much of the dust from the person-situation debate has settled (Kenrick and Funder 1988; Mischel 2004), there continue to be separate social and trait traditions on the self.

The objective of this chapter is to examine the potential interface between trait and social cognitive views of the self. In some cases, links already have been forged. In other cases, links are tenuous and would benefit from further research. Regardless, the potential for cross-fertilization is high.

Using the trait perspective to understand the self

Overview

Trait psychologists have made important advances in the last thirty years (John and Srivastava 1999). Researchers now know a good deal more about traits than they did prior to Mischel's (1968) critique, and this knowledge can inform our understanding of the self. We highlight several recent advances, and point to new research directions.

Trait stability

When trait scales are administered twice, even if separated by five to ten years, test-retest correlations are remarkably strong – typically in the .6–.8 range (McCrae and Costa 1994). Such stability coefficients suggest that at least certain aspects of the self, such as global self-esteem, are likely to be quite stable as well. Research by Trzesniewski, Donnellan and Robins (2003) supports this conjecture. In a secondary analysis of four national archival datasets, they examined the test-retest stability of self-esteem from ages six to eighty-three. Self-esteem had considerable continuity over time, comparable to trait stability. This finding contradicts the notion that the global self-concept is highly malleable.

Trait-based predictions

Traits are relatively poor predictors of momentary experiences or behaviours (Kenrick and Funder 1988). Rather, traits capture average tendencies and are therefore best suited to predicting outcomes that have been aggregated across situations or over time (Epstein 1983). Thus, the social cognitive critique of traits, perhaps most strongly expressed by Ross and Nisbett (1991), now seems misguided to a certain extent. Indeed, it is notable that modern social cognitive researchers often use individual difference measures in their research and do so to a far greater extent than in the 1970s and 1980s (Baumeister 1997; Sedikides, Gregg and Hart 2007).

Structural considerations

Self-reported traits can be integrated into a common structural model, often referred to as the Big Five (John and Srivastava 1999). One of the assumptions of this model is that seemingly diverse individual difference variables, including those linked to the self, are likely to overlap considerably with one or more traits of the Big Five. Increasingly, this appears to be so. For example, Watson, Suls and Haig (2002) found that global self-esteem could be conceptualized largely in terms of low Neuroticism and high Extraversion. Other recent investigations have forged links between the Big Five structural model and other self-constructs such as self-discrepancies (i.e. actual, ideal, ought selves: Hafdahl *et al*. 2000) and self-regulation (i.e., ego-control and ego-resilience: Gramzow *et al*. 2004). Clearly, these lines of research suggest an important integrative role for the Big Five in understanding the self-concept.

Genetic basis of traits

Behavioural genetic studies have shown that 40–50 per cent of the variance in trait self-reports has a heritable component (Loehlin, McCrae and Costa 1998). Similarly, global evaluations of the self, along with other self-aspects, have a

genetic basis (Neiss, Sedikides and Stevenson 2006; Neiss *et al*. 2005). These latter findings challenge views of the self as merely the product of social-situational feedback (Mead 1934; see also Leary, Tambor, Terdal and Downs 1995). It will be interesting to explore how social cognitive models of the self could be modified to incorporate its genetic heritability.

Approach and avoidance

Theoretical perspectives and empirical findings link Extraversion and Neuroticism to approach and avoidance motivation, respectively (Carver, Sutton and Scheier 2000; Elliot and Thrash 2002). Given that global self-esteem is related to Extraversion and Neuroticism (Watson *et al*. 2002), the approach/avoidance perspective should have theoretical implications for understanding global self-esteem as well (Baumeister, Tice and Hutton 1989). This focus on approach/avoidance motives seems likely to contribute to new knowledge in understanding how global self-esteem functions.

Summary

Traits are stable, predictive of aggregated outcomes, and have a genetic basis. These insights have already made inroads into research on global self-esteem. Still, however, new research directions beckon. For example, approach/avoidance frameworks, as applied to Extraversion and Neuroticism (Carver, Sutton and Scheier 2000) as well as anxiety and impulsivity (Gray 1987), have interesting implications for self-esteem and self-perception. Likewise, malleability and stability perspectives on the self will need to be reconciled, a topic that is gaining increased attention (Caspi, Roberts and Shiner 2005).

Using the self perspective to understand traits

Overview

The trait literature has been successful in understanding the structural and genetic basis of traits, but less successful in elucidating their processing-basis (Matthews and Gilliland 1999). Given that social cognitive views of the self are often centrally concerned with issues of process (Sedikides and Gregg 2003), applying the social cognitive perspective to traits is likely to be generative. Here, we highlight several potential insights along these lines.

Self-verification motive

Why are traits so stable over time? Swann's (e.g., Swann and Schroeder 1995) influential research on self-verification processes may provide an answer to this

question. Swann contends that people are motivated to confirm rather than disconfirm strongly held views of the self (see also Sedikides 1995). Thus, a given self-view (e.g., that the self is high in Neuroticism) is likely to create its own reality through trait-consistent processes related to self-verification (Swann, Rentfrow and Guinn 2002). In a review article on the surprising stability of traits, McCrae and Costa (1994) cited Swann's research favourably, yet very little extant research has applied the self-verification perspective to traits of the Big Five (for an exception, see Tamir 2005).

Self-enhancement motive

Self-enhancement reflects a motive to view the self as positively as possible (Sedikides and Gregg 2008; Sedikides and Strube 1997). On the basis of this motive, one can explain why individuals (a) view their own traits as more socially desirable than the average person (Alicke and Govorun 2005); (b) interpret ambiguous trait terms in a way that reflects best on the self (Dunning, Meyerowitz and Holzberg 1989); (c) choose questions likely to confirm their positive (versus negative) traits (Sedikides 1993); and (d) manifest superior memory for feedback related to their positive (versus negative) traits (Sedikides and Green 2000).

Individual differences in trait self-reports, too, can be understood in terms of socially desirable responding (Edwards 1953; Paulhus and John 1998). Although accounts differ on whether such responding compromises the validity of trait-based judgements, this is clearly a concern (Robins and John 1997). Rather than reflecting objective reality, that is, trait self-reports may often reflect individual differences in the strength of the self-enhancement motive.

The heterogeneous self

When describing themselves, individuals mention a variety of self-aspects, only some of which would qualify as traits (Gordon 1968). Also mentioned are important relationships, social roles, goals and motives, preferences and values, as well as rules and strategies for self-regulation (Markus 1983; McConnell and Strain 2007). When individuals rate their traits in relation to different role-contexts (e.g., in school versus at home), their traits differ in ways that are particular to a given role-context (Donahue and Harary 1998). There has been an attempt to incorporate role-specific tendencies into more general models of traits (Wood and Roberts 2006), but additional integration efforts are needed.

The hierarchical self

The self is hierarchically organized. Its most abstract features are captured when individuals characterize themselves in general, irrespective of context or social role (Schell, Klein and Babey 1996). Note that this abstract level is consistent with

the manner in which personality traits are typically assessed. At a lower level of abstraction, social roles encompass aspects of personality that, although generalized, are specific to the role under consideration (Donahue and Harary 1998). At the lowest level of abstraction, self-views are particular to a given day (Kernis, Grannemann and Barclay 1989) or moment in time (Heatherton and Polivy 1991). Such levels of the self function differently. For example, momentary self-esteem varies substantially from day to day, whereas this is not true of global self-esteem (Heatherton and Polivy 1991).

An implication of the preceding points is that personality self-reports will be both stable and malleable, depending on the level of analysis. If the focus is on the self in general terms, then state-related variables should be relatively inconsequential (Schell *et al*. 1996). On the other hand, if the focus is on self-views that are specific to a social role, then personality traits will exhibit a greater degree of context sensitivity (Wood and Roberts 2006). Finally, when individuals are asked to rate their momentary emotions or self-views, such variables exhibit a great deal of flux across situation and over time (Diener and Larsen 1984). Thus, it is crucial to distinguish generalized self-views from those that are more contextual in nature.

Central versus peripheral aspects of the self

People can describe themselves in terms of both central and peripheral self-aspects (Sedikides 1993). People view central self-aspects as more important and hold them with greater certainty (Rosenberg 1979). Furthermore, central self-aspects are endorsed more quickly (Markus 1977), are less influenced by current mood (Sedikides 1995), and are associated with a greater degree of motivated processing (Sedikides 1993). These findings parallel the attitude strength literature, in which stronger attitudes are associated with faster processing, less context-dependence, and a greater degree of motivated processing (Petty and Krosnick 1995).

Applying the attitude strength perspective to the trait literature, it is likely that central (versus peripheral) aspects of the self will be more stable over time, more predictive of trait-relevant outcomes, and more resistant to trait-inconsistent feedback or contextual influences. Relevant findings have been reported in the self literature (Markus 1977; Sedikides 1995; Sedikides and Green 2000), but the promise of this perspective remains largely unfulfilled in the trait literature (Fuhrman and Funder 1995). For example, do individual differences in strength/centrality moderate relations between a given trait (e.g., Neuroticism) and a trait-relevant outcome (e.g., negative affect)? We simply do not know at the present time.

Self-certainty

Individuals higher in self-esteem are more certain about themselves, and this contributes to higher levels of self-esteem stability (Campbell 1990), higher levels

of internal consistency among different self-aspects (Campbell and Fehr 1990), and reduced susceptibility to social feedback (Campbell, Chew and Scratchley 1991). Although self-esteem and self-certainty overlap, they can be distinguished by the use of a recently developed dispositional measure of self-certainty (Campbell *et al*. 1996). Based on the idea that higher levels of self-certainty are associated with a greater degree of consistency across time and context (Campbell *et al*. 1996), it seems likely that traits might be better predictive of trait-relevant outcomes at higher levels of self-certainty. Thus, the dispositional analysis of self-certainty has promising implications for the trait-prediction literature.

The self as a memory structure

Generalized self-knowledge has properties of association consistent with semantic memory networks (Kihlstrom, Beer and Klein 2003; Robinson and Clore 2002a). These associative links should, in turn, have systematic implications for understanding how traits function. For example, a greater interconnectivity of positive affective knowledge should render it more likely that one positive thought would trigger another one in daily life (Robinson and Compton 2008). In support of this sort of analysis, a series of studies have shown that higher levels of life satisfaction are associated with stronger positive affective priming effects (Robinson and Kirkeby 2005; Robinson and von Hippel 2006), whereas higher levels of Neuroticism are associated with stronger negative affective priming effects (Robinson, Ode, Moeller and Goetz 2007). In short, traits may be profitably viewed as associative memory structures, as assessed within semantic and affective priming paradigms.

Other memory structure paradigms have focused on individual differences in the manner in which different self-aspects are organized (Linville 1985; Showers 1992). Individuals first list their important, yet distinct, self-aspects. They then assign traits to each self-aspect. Individuals differ in the extent to which their self-concept is simple – defined by fewer roles and more trait-overlap between roles – or complex. Those with relatively simple self-concepts evaluate the self in a manner that is more strongly influenced by success or failure feedback (McConnell and Strain 2007) or current mood states (Showers and Kling 1996). Such findings are understood in terms of a greater degree of spreading activation among different self-aspects at lower levels of self-complexity (Linville 1985; Showers 1992).

The memory structure paradigms discussed here would be useful in examining other important questions in the area of trait psychology. For example, associations among the Big Five traits appear to differ across individuals in a manner consistent with self-enhancement motives (Paulhus and John 1998). That is, some individuals may view the self in more global evaluative terms (Saucier 1994), in turn resulting in systematic relations among the Big Five traits (e.g., stronger inverse correlations between Extraversion and Neuroticism). In the spirit of understanding such differences, we suggest that memory structure paradigms

may complement factor analytic techniques in understanding why it is that evaluative considerations play a larger role in trait self-ratings among some individuals relative to others.

Summary

Social psychologists have made significant advances in understanding the self. People are inclined to confirm strongly held self-views or select environments (e.g., occupations, neighbourhoods) that are likely to provide self-confirmation. Such considerations help to explain why it is that trait self-judgements are so stable over time. People are motivated to view the self in a positive manner, and this may help explain why trait self-judgements are polarized in a positive direction. Trait self-knowledge is general and abstract and may not capture important aspects of self-representation in everyday life. Yet, the abstractness of trait self-judgements is conducive to examining how individual differences in traits map onto, and likely follow from, individual differences in memory structure. Conceptualizing trait self-judgements as abstract beliefs concerning the self has implications for thinking about when and why traits will predict trait-relevant outcomes, a topic to which we now turn.

Trait self-knowledge as abstract beliefs about the self

Overview

Traits reflect and predict daily behaviour and experience (McCrae and Costa 1999) and traits have a genetic basis (Loehlin, McCrae and Costa 1998). Yet, research on the processing correlates of traits thought to produce trait-relevant outcomes has resulted in an inconsistent literature (Matthews and Gilliland 1999; Robinson, Vargas and Crawford 2003). Our review will not seek to document the successes and failures of this literature. Rather, our review will highlight a particular theory of trait-outcome relations and emerging support for it.

The theory

Personality traits could be assessed by aggregating across multiple observers (Funder 1991) or across momentary samples of experience and behaviour in daily life (Epstein 1983). Yet, this is not common practice. Instead, researchers typically assess traits by asking people to self-report on their broad (i.e., 'in general') tendencies to think, feel and act in particular ways. Likely, then, there is a close link between trait self-judgements and the global self-concept. This observation led Robinson and Clore (2002a) to suggest that trait self-reports assess abstract or generalized self-views rather than those more closely tied to momentary experience and behaviour. This theoretical perspective has important

implications for understanding how traits are likely to function from a social-cognitive perspective.

Traits as generalized self-knowledge

When individuals rate themselves in general, they are likely to retrieve different sources of information than when they judge themselves in particular social roles or contexts. At least three additional sources of data attest to this point. First, generalized self-views are more consistent with self-relevant stereotypes than are ratings obtained in experience-sampling protocols (e.g., women are more emotional than men: Barrett, Robin, Pietromonaco and Eyssell 1998). Secondly, amnesic, autistic or demented patients can make reliable and valid trait judgements about the self, despite a complete inability to recall specific trait-relevant experiences or behaviours (e.g., Klein, Loftus and Kihlstrom 1996). Thirdly, reaction time paradigms converge on the point that ratings of the self 'in general' are made on a fundamentally different basis than are ratings of the self within more momentary timeframes (Robinson and Clore 2002b). In short, trait self-judgements tap generalized beliefs about the self somewhat independently of more momentary self-views (Robinson and Clore 2002a,2002b).

Priming stereotypic self-knowledge

Above, we noted that trait self-reports appear to be more stereotypic than are momentary ratings of the self (Robinson and Clore 2002a). If so, priming stereotypes, such as those related to the idea that women are more emotional than men, should differentially influence trait judgements of the self relative to state judgements of the self. This prediction was systematically confirmed in a study reported by Robinson and Clore (2002b), who primed gender stereotypes prior to asking individuals to rate their emotions both in general and in more momentary terms. As predicted, the priming manipulation led women to report that they had more intense emotions than men, but this priming effect was only observed when participants rated their emotions 'in general' or over long timeframes (e.g., the 'last few years'). Thus, there is some experimental evidence for the idea that trait self-reports are more stereotyped than are views of the self over more recent timeframes (e.g., the 'last few days').

Trait-state interactions

If trait- and state-related views of the self rely on different sources of self-knowledge, then they may often conflict with each other. Indeed, relations between Extraversion and Neuroticism on the one hand, and positive and negative mood states on the other, are often modest (Matthews and Gilliland 1999). Irrespective of mood manipulations, then, there are many moments in life in which individuals high in Neuroticism feel calm and individuals low in

Extraversion feel excited. Of interest here is what happens when trait and state sources of self-knowledge conflict with each other.

We suggest that conflicts between trait and state sources of self-knowledge are likely to be problematic. From the self-verification perspective, people desire trait-consistent mood states in part because such states are more frequent in daily life and therefore more conducive to habitual ways of interacting with the world (Swann and Schroeder 1995). Therefore, trait-inconsistent mood states may engender some degree of uncertainty and confusion, in turn disrupting established routines for appraising the significance of momentary events. In support of such a framework, trait-state mismatches, whether related to Extraversion and positive mood (Tamir, Robinson and Clore 2002) or Neuroticism and negative mood (Tamir and Robinson 2004), have been shown to undermine appraisal abilities, defined in terms of slowed reaction times in evaluating affective stimuli. Thus, individuals appear to function better when trait and state sources of self-knowledge converge rather than conflict with each other.

Trait self-knowledge as a default

The material presented above makes the case for separable sources of self-knowledge related to trait and state. Moreover, we have suggested that people generally prefer to make their emotion judgements on the basis of state-related knowledge to the extent possible (Robinson and Clore 2002b). However, when such knowledge is less accessible, we have suggested that individuals may 'default' to their more generalized beliefs concerning the self, and a large body of research at least inferentially supports this prediction (Robinson and Clore 2002a).

In recent studies, we have sought to provide more direct support for this trait-as-default perspective. If we are correct, individuals who are less capable of appraising the significance of momentary events should report emotional states that are more biased by their emotional traits. The most systematic body of research along these lines has examined relations between trait Neuroticism and state-related experiences of distress. Neuroticism/distress relations are higher among individuals: (a) less capable of making momentary distinctions between threatening and non-threatening stimuli (Tamir, Robinson and Solberg 2006); (b) higher in cognitive perseveration tendencies (Robinson, Wilkowski, Kirkeby and Meier 2006); (c) higher in dominant-response tendencies (Robinson, Goetz, Wilkowski and Hoffman 2006); (d) slower in reaction time (Robinson and Clore 2007); (e) higher in reaction time variability (Robinson, Wilkowski and Meier 2006); and (f) lower in self-regulation capacity (Robinson, Ode, Wilkowski and Amodio 2007).

Trait Neuroticism, then, appears to play an important 'fill in' role among individuals less capable of appreciating the nuances of moment-to-moment experience (Robinson and Clore 2007). Importantly, parallel findings have been reported in relation to the link between Extraversion and positive affect (Robinson and Oishi 2006; Robinson, Solberg, Vargas and Tamir 2003). The implications of this research

are notable. Traits are not inevitable predictors of emotion and behaviour in daily functioning. Rather, their influence on such outcomes depends on the extent to which the individual is attuned to the nuances of daily life. Among less attuned individuals, traits are especially consequential. However, among more attuned individuals, traits are less consequential (e.g., Robinson and Clore 2007; Robinson and Oishi 2006).

Summary

We have suggested that trait self-knowledge can be conceptualized, at least in part, in terms of generalized beliefs concerning the self. This theoretical perspective has been especially generative. For example, the perspective can explain why trait self-reports are often more stereotypic than state self-reports are (Robinson and Clore 2002a). The theory also helps to explain why trait-state mismatches are problematic for making evaluations (e.g., Tamir and Robinson 2004). Finally, the theory makes the unique prediction that trait-state relations should be higher among individuals less capable of appreciating distinctions at encoding, and such predictions have received systematic support (e.g., Robinson and Clore 2007). Although we hasten to add that the theory presented here clearly has limitations, for example in explaining relations between traits and biological outcome variables, we nevertheless suggest that the theory has strengths in linking trait and social cognitive views of the self.

Future directions

A number of future directions were mentioned above; here, we focus on three such directions. Psychometric work reveals that global self-esteem is largely isomorphic with high levels of Extraversion in combination with low levels of Neuroticism (Watson, Suls and Haig 2002). Therefore, the trait literature on approach and avoidance motivation, linked to Extraversion and Neuroticism, can further inform the self-concept literature on global self-esteem. Also, the literature on global self-esteem, which highlights differences in self-certainty (Campbell 1990) and reactivity to feedback (Campbell, Chew and Scratchley 1991), should in turn contribute to our understanding of the manner in which Extraversion and Neuroticism function. For example, we would expect Extraversion to relate to higher levels of self-certainty and Neuroticism to relate to lower levels of self-certainty (see Campbell *et al.* 1996).

The self-concept literature highlights the manner in which various aspects of the self-concept can be either strongly or weakly held. The idea that strong self-views are more consequential has been confirmed in the social cognition literature (Markus 1977; Sedikides 1993; Sedikides and Green 2000), and it is thus surprising that there are so few applications of this strength-related perspective to the trait literature (for an exception, see Fuhrman and Funder 1995). Given the substantial role that strength-related variables play in moderating stability, attitude-behaviour

relations and other attitude-related effects (Petty and Krosnick 1995), one would expect that strength-related variables, such as the speed of making trait self-judgements, would moderate trait-outcome relations.

We presented evidence for the idea that trait-state relations appear stronger among, and even exclusive to, individuals less capable of making distinctions at encoding (e.g., Robinson and Oishi 2006). This perspective can be extended in at least two ways. First, such moderating effects should extend to trait-behaviour relations in addition to trait-state relations, but we have very little evidence in support of this point (for an exception, see Robinson *et al*. 2006). Secondly, basic features of intellect, such as general intelligence, should also moderate trait-outcome relations (e.g., Robinson and Clore 2007). Such demonstrations would not only support the theory advanced in the latter section of the review, but also better link research on personality and intelligence, hitherto examined in separate research traditions (Eysenck and Eysenck 1985). In general terms, we suggest that a concerted focus on processing-related moderators of trait-state relations seems especially important in understanding how and why traits influence state-related outcomes from a social cognitive perspective.

Conclusions

The goal of this chapter was to promote an integration of trait and social cognitive views of the self. In the first major section, we highlighted the manner in which the trait literature can inform the self-concept literature. In the second major section, we reversed such considerations by highlighting the manner in which the self-concept literature can inform the literature on personality traits. In the third major section, we presented a model proposing that trait self-judgements can be viewed in terms of generalized beliefs concerning the self. Given that multiple lines of research have demonstrated the benefits of integrating trait and social cognitive views of the self, we are optimistic that future integration efforts will be similarly successful.

References

Alicke, M. D. and Govorun, O. 2005. The better-than-average effect, in M. D. Alicke, D. A. Dunning and J. I. Krueger (eds.), *The self in social judgement*, pp. 85–106. Philadelphia, PA: Psychology Press

Barrett, L. F., Robin, L., Pietromonaco, P. R. and Eyssell, K. M. 1998. Are women the 'more emotional' sex?: evidence from emotional experiences in social context, *Cognition and Emotion* 12: 555–78

Baumeister, R. F. 1997. Identity, self-concept, and self-esteem: the self lost and found, in R. Hogan, J. A. Johnson and S. R. Briggs (eds.), *Handbook of personality psychology*, 1st edn, pp. 681–710. San Diego, CA: Academic Press

Baumeister, R. F., Tice, D. M. and Hutton, D. G. 1989. Self-presentational motivations and personality differences in self-esteem, *Journal of Personality* 57: 547–79

Benet-Martinez, V. and John, O. 1998. Los Cinco Grandes across cultures and ethnic groups: multitrait-multimethod analyses of the Big Five in Spanish and English, *Journal of Personality and Social Psychology* 75: 729–50

Campbell, J. D. 1990. Self-esteem and clarity of the self-concept, *Journal of Personality and Social Psychology* 59: 538–49

Campbell, J. D., Chew, B. and Scratchley, L. S. 1991. Cognitive and emotional reactions to daily events: the effects of self-esteem and self-complexity, *Journal of Personality* 59: 473–505

Campbell, J. D. and Fehr, B. 1990. Self-esteem and perceptions of conveyed impressions: is negative affectivity associated with greater realism?, *Journal of Personality and Social Psychology* 58: 122–33

Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F. and Lehman, D. R. 1996. Self-concept clarity: measurement, personality correlates, and cultural boundaries, *Journal of Personality and Social Psychology* 70: 141–56

Carver, C. S., Sutton, S. K. and Scheier, M. F. 2000. Action, emotion, and personality: emerging conceptual integration, *Personality and Social Psychology Bulletin* 26: 741–51

Caspi, A., Roberts, B. W. and Shiner, R. L. 2005. Personality development: stability and change, *Annual Review of Psychology* 56: 453–84

Diener, E. and Larsen, R. J. 1984. Temporal stability and cross-situational consistency of affective, behavioural, and cognitive responses, *Journal of Personality and Social Psychology* 47: 871–83

Donahue, E. M. and Harary, K. 1998. The patterned inconsistency of traits: mapping the differential effects of social roles on self-perceptions of the Big Five, *Personality and Social Psychology Bulletin* 24: 610–19

Dunning, D., Meyerowitz, J. A. and Holzberg, A. D. 1989. Ambiguity and self-evaluation: the role of idiosyncratic trait definitions in self-serving assessments of ability, *Journal of Personality and Social Psychology* 57: 1082–90

Edwards, A. L. 1953. The relationship between the judged desirability of a trait and the probability that the trait will be endorsed, *Journal of Applied Psychology* 37: 90–3

Elliot, A. J. and Thrash, T. M. 2002. Approach-avoidance motivation in personality: approach and avoidance temperaments and goals, *Journal of Personality and Social Psychology* 82: 804–18

Epstein, S. 1983. Aggregation and beyond: some basic issues on the prediction of behaviour, *Journal of Personality* 51: 360–92

Eysenck, H. J. and Eysenck, M. W. 1985. *Personality and individual differences: a natural science approach*. New York: Plenum

Fuhrman, R. W. and Funder, D. C. 1995. Convergence between self and peer in the response-time processing of trait-relevant information, *Journal of Personality and Social Psychology* 69: 961–74

Funder, D. C. 1991. Global traits: a neo-Allportian approach to personality, *Psychological Science* 2: 31–9

Gordon, C. 1968. Self-conceptions: configurations of content, in C. Gordon and K. J. Gergen (eds.), *The self in social interaction*, pp. 115–36. New York: Wiley

Gramzow, R. H., Sedikides, C., Panter, A. T., Sathy, V., Harris, J. and Insko, C. A. 2004. Patterns of self-regulation and the Big Five, *European Journal of Personality* 18: 367–85

Gray, J. A. 1987. Perspectives on anxiety and impulsivity: a commentary, *Journal of Research in Personality* 21: 493–509

Hafdahl, A. R., Panter, A. T., Gramzow, R. H., Sedikides, C. and Insko, C. A. 2000. Free-response self-discrepancies across, among, and within FFM personality dimensions, *Journal of Personality* 68: 111–51

Heatherton, T. F. and Polivy, J. 1991. Development and validation of a scale for measuring state self-esteem, *Journal of Personality and Social Psychology* 60: 895–910

James, W. 1890. *The principles of psychology.* New York: Henry Holt and Company

John, O. P. and Srivastava, S. 1999. The Big Five trait taxonomy: history, measurement, and theoretical perspectives, in L. A. Pervin and O. P. John (eds.), *Handbook of personality: theory and research*, 2nd edn, pp. 102–38. New York: Guilford Press

Kenrick, D. T. and Funder, D. C. 1988. Profiting from the controversy: lessons from the person-situation debate, *American Psychologist* 43: 23–34

Kernis, M. H., Grannemann, B. D. and Barclay, L. C. 1989. Stability and level of self-esteem as predictors of anger arousal and hostility, *Journal of Personality and Social Psychology* 56: 1013–22

Kihlstrom, J. F., Beer, J. B. and Klein, S. B. 2003. Self and identity as memory, in M. R. Leary and J. P. Tangney (eds.), *Handbook of self and identity*, pp. 68–90. New York: Guilford Press

Klein, S. B., Loftus, J. and Kihlstrom, J. F. 1996. Self-knowledge of an amnesic patient: toward a neuropsychology of personality and social psychology, *Journal of Experimental Psychology: General* 125: 250–60

Leary, M. R., Tambor, E. S., Terdal, S. K. and Downs, D. L. 1995. Self-esteem as an interpersonal monitor: the sociometer hypothesis, *Journal of Personality and Social Psychology* 68: 518–30

Linville, P. W. 1985. Self-complexity and affective extremity: don't put all of your eggs in one cognitive basket, *Social Cognition* 3: 94–120

Loehlin, J. C., McCrae, R. R. and Costa, P. T. 1998. Heritabilities of common and measure-specific components of the Big Five personality factors, *Journal of Research in Personality* 32: 431–53

Markus, H. 1977. Self-schemata and processing information about the self, *Personality and Social Psychology Bulletin* 35: 63–78

1983. Self-knowledge: an expanded view, *Journal of Personality* 51: 543–65

Matthews, G. and Gilliland, K. 1999. The personality theories of H. J. Eysenck and J. A. Gray: a comparative review, *Personality and Individual Differences* 26: 583–626

McConnell, A. R. and Strain, L. M. 2007. Structure and content of the self, in C. Sedikides and S. Spencer (eds.), *The self in social psychology*, pp. 51–73. New York: Psychology Press

McCrae, R. R. and Costa, P. T. 1994. The stability of personality: observation and evaluations, *Current Directions in Psychological Science* 3: 173–5

1999. A Five-Factor theory of personality, in L. A. Pervin and O. P. John (eds.), *Handbook of personality: theory and research*, 2nd edn, pp. 139–53. New York: Guilford Press

McGuire, W. J. and McGuire, C. V. 1988. Content and process in the experience of the self, in L. Berkowitz (ed.), *Advances in experimental social psychology*, vol. XXI, pp. 97–144. San Diego, CA: Academic Press

Mead, G. H. 1934. *Mind, self, and society from the standpoint of a social behaviourist*. University of Chicago Press

Mischel, W. 1968. *Personality and assessment*. Hoboken, NJ: John Wiley and Sons

2004. Toward an integrative science of the person, *Annual Review of Psychology* 55: 1–22

Neiss, M. B., Sedikides, C. and Stevenson, J. 2006. Genetic influences on level and stability of self-esteem, *Self and Identity* 5: 247–66

Neiss, M. B., Stevenson, J., Sedikides, C., Kumashiro, M., Finkel, E. J. and Rusbult, C. E. 2005. Executive self, self-esteem, and negative affectivity: relations at the phenotypic and genotypic level, *Journal of Personality and Social Psychology* 89: 593–606

Paulhus, D. L. and John, O. P. 1998. Egoistic and moralistic biases in self-perception: the interplay of self-deceptive styles with basic traits and motives, *Journal of Personality* 66: 1025–60

Petty, R. E. and Krosnick, J. 1995. *Attitude strength: antecedents and consequences*. Hillsdale, NJ: Lawrence Erlbaum Associates

Robins, R. W. and John, O. P. 1997. The quest for self-insight: theory and research on accuracy and bias in self-perception, in R. Hogan, J. A. Johnson and S. R. Briggs (eds.), *Handbook of personality psychology*, 1st edn, pp. 649–79. San Diego, CA: Academic Press

Robinson, M. D. and Clore, G. L. 2002a. Belief and feeling: an accessibility model of emotional self-report, *Psychological Bulletin* 128: 934–60

2002b. Episodic and semantic knowledge in emotional self-report: evidence for two judgment processes, *Journal of Personality and Social Psychology* 83: 198–215

2007. Traits, states, and encoding speed: support for a top-down view of neuroticism/stress relations, *Journal of Personality* 75: 95–120

Robinson, M. D. and Compton, R. J. 2008. The happy mind in action: the cognitive basis of subjective well-being, in M. Eid and R. J. Larsen (eds.), *The science of subjective well-being*, pp. 220–38 New York: Guilford Press

Robinson, M. D., Goetz, M. C., Wilkowski, B. M. and Hoffman, S. J. 2006. Driven to tears or to joy: response dominance and trait-based predictions, *Personality and Social Psychology Bulletin* 32: 629–40

Robinson, M. D. and Kirkeby, B. S. 2005. Happiness as a belief system: individual differences and priming in emotion judgments, *Personality and Social Psychology Bulletin* 31: 1134–44

Robinson, M. D., Ode, S., Moeller, S. K. and Goetz, P. W. 2007. Neuroticism and affective priming: evidence for a Neuroticism-linked negative schema, *Personality and Individual Differences* 42: 1221–31

Robinson, M. D., Ode, S., Wilkowski, B. M. and Amodio, D. M. 2007. Neurotic contentment: a self-regulation view of Neuroticism-linked distress, *Emotion* 7: 579–91

Robinson, M. D. and Oishi, S. 2006. Trait self-report as a 'fill in' belief system: categorization speed moderates the Extraversion/life satisfaction relation, *Self and Identity* 5: 15–34

Robinson, M. D., Solberg, E. C., Vargas, P. and Tamir, M. 2003. Trait as default: Extraversion, subjective well-being, and the distinction between neutral and positive events, *Journal of Personality and Social Psychology* 85: 517–27

Robinson, M. D., Vargas, P. T. and Crawford, E. G. 2003. Putting process into personality, appraisal, and emotion: evaluative processing as a missing link, in J. Musch and K. C. Klauer (eds.), *The psychology of evaluation: affective processes in cognition and emotion*, pp. 275–306. Mahwah, NJ: Lawrence Erlbaum Associates

Robinson, M. D. and Von Hippel, W. 2006. Rose-colored priming effects: life satisfaction and affective priming, *Journal of Positive Psychology* 1: 187–97

Robinson, M. D., Wilkowski, B. M., Kirkeby, B. S. and Meier, B. P. 2006. Stuck in a rut: perseverative response tendencies and the Neuroticism/distress relationship, *Journal of Experimental Psychology: General* 135: 78–91

Robinson, M. D., Wilkowski, B. M. and Meier, B. P. 2006. Unstable in more ways than one: reaction time variability and the Neuroticism/distress relationship, *Journal of Personality* 74: 311–43

Rosenberg, M. 1979. *Conceiving the self*. New York: Basic Books

Ross, L. and Nisbett, R. E. 1991. *The person and the situation: perspectives of social psychology*. New York: McGraw-Hill

Saucier, G. 1994. Separating description and evaluation in the structure of personality attributes, *Journal of Personality and Social Psychology* 66: 141–54

Schell, T. L., Klein, S. B. and Babey, S. H. 1996. Testing a hierarchical model of self-knowledge, *Psychological Science* 7: 170–3

Sedikides, C. 1993. Assessment, enhancement, and verification as determinants of the self-evaluation process, *Journal of Personality and Social Psychology* 65: 317–38

1995. Central and peripheral self-conceptions are differentially influenced by mood: tests of the differential sensitivity hypothesis, *Journal of Personality and Social Psychology* 69: 759–77

Sedikides, C. and Green, J. D. 2000. On the self-protective nature of inconsistency/negativity management: using the person memory paradigm to examine self-referent memory, *Journal of Personality and Social Psychology* 79: 906–22

Sedikides, C. and Gregg, A. P. 2003. Portraits of the self, in M. A. Hogg and J. Cooper (eds.), *Sage handbook of social psychology*, pp. 110–38. London: Sage Publications

2008. Self-enhancement: food for thought, *Perspectives on Psychological Science* 3: 102–16

Sedikides, C., Gregg, A. P. and Hart, C. M. 2007. The importance of being modest, in C. Sedikides and S. Spencer (eds.), *The self: frontiers in social psychology*, pp. 285–324. New York: Psychology Press

Sedikides, C. and Strube, M. J. 1997. Self-evaluation: to thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better, in M. P. Zanna (ed.), *Advances in experimental social psychology*, vol. XXIX, pp. 209–69. New York: Academic Press

Showers, C. 1992. Compartmentalization of positive and negative self-knowledge: keeping bad apples out of the bunch, *Journal of Personality and Social Psychology* 62: 1036–49

Showers, C. J. and Kling, K. C. 1996. Organization of self-knowledge: implications for recovery from sad mood, *Journal of Personality and Social Psychology* 70: 578–90

Swann, W. B., Rentfrow, P. J. and Guinn, J. 2002. Self-verification: the search for coherence, in M. R. Leary and J. P. Tangney (eds.), *Handbook of self and identity*, pp. 367–83. New York: Guilford Press

Swann, W. B. and Schroeder, D. G. 1995. The search for beauty and truth: a framework for understanding reactions to evaluations, *Personality and Social Psychology Bulletin* 21: 1307–18

Tamir, M. 2005. Don't worry, be happy?: Neuroticism, trait-consistent affect regulation, and performance, *Journal of Personality and Social Psychology* 89: 449–61

Tamir, M. and Robinson, M. D. 2004. Knowing good from bad: the paradox of Neuroticism, negative affect, and evaluative processing, *Journal of Personality and Social Psychology* 87: 913–25

Tamir, M., Robinson, M. D. and Clore, G. L. 2002. The epistemic benefits of trait-consistent mood states: an analysis of Extraversion and mood, *Journal of Personality and Social Psychology* 83: 663–77

Tamir, M., Robinson, M. D. and Solberg, E. C. 2006. You may worry, but can you recognize threats when you see them?: Neuroticism, threat identifications, and negative affect, *Journal of Personality* 74: 1481–1506

Trzesniewski, K. H., Donnellan, M. B. and Robins, R. W. 2003. Stability of self-esteem across the lifespan, *Journal of Personality and Social Psychology* 84: 205–20

Watson, D., Suls, J. and Haig, J. 2002. Global self-esteem in relation to structural models of personality and affectivity, *Journal of Personality and Social Psychology* 83: 185–97

Wood, D. and Roberts, B. W. 2006. Cross-sectional and longitudinal tests of the personality and role identity structural model (PRISM), *Journal of Personality* 74: 779–809