

CHAPTER 16

Self-Protection

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Though traffic is a manifestly collective activity, we persist in pretending to ourselves that it is something being done to us. We are among it, but not of it. "Have you ever noticed," the American standup George Carlin once inquired, "how everybody driving slower than you is an idiot, and everyone going faster than you is a maniac?" We say we are "in" traffic, dramatising ourselves as a lone vehicle of noble and rational intent, with a sea of malevolent, dead-weight antagonists stretching endlessly fore and aft. It was in a bid to highlight the flaws in this position that a German transport campaign erected roadside boards reading: "You are not stuck in traffic—you are traffic."

—MARINA HYDE, *The Guardian*, September 4, 2010 (p. 30)

That people pursue or maximize positive experiences and avoid or minimize negative ones is indeed "psychology's most fundamental and immutable behavioral law" (Alicke & Sedikides, 2009, p. 1). A brand of this motivated behavior is self-enhancement and self-protection. Both serve to preserve the positivity of the self-concept and self-esteem. Yet their functions are further specialized. The self-enhancement motive acts also to increase the positivity of self-views and self-esteem, whereas the self-protection acts also against possible decreases in the positivity of self-views or self-esteem.¹

Self-enhancement and self-protection are sometimes treated as polar ends of the same dimension. Recent theoretical analyses and empirical evidence, however, suggest that they be treated separately, as the motives often operate through distinct mechanisms (Alicke & Sedikides, 2011a; Elliot & Mapes, 2005; Sedikides & Gregg, 2008). Self-enhancement has received the lion's share of attention in social and personality psychology (Alicke, Guenther, & Zell, Chapter 14, this volume; Dunning, Chapter

22, this volume). The present chapter aims to redress the imbalance by focusing on self-protection: its manifestations, its contextual moderators, its benefits and liabilities. An overview of the chapter follows.

Self-Protection: An Overview

Self-threat abounds. Even the most privileged and well-adjusted individuals will find themselves stuck in traffic, outperformed in the boardroom, outmaneuvered in the squash court, outwitted at a dinner party, offended by a peer, rejected by a romantic partner, subjected to unfair organizational practices, or confronted with their mortality. How do individuals cope with symbolic assaults on their self-concept and self-esteem?

Self-threat refers to perceived or real doubt, diminishment, or devaluation of one's self-concept and self-esteem (Leary, Terry, Allen, & Tate, 2009). The noxious incidents that induce self-threat can be implicit or explicit. Examples of implicit self-threat are derogatory words presented either sub-

liminally (Riketta & Dauenheimer, 2003) or via a Stroop task (Wallis & Hetherington, 2004). Examples of explicit self-threat typically involve negative feedback delivered either directly by an evaluator (e.g., supervisor, peer; Sutton, Hornsey, & Douglas, in press) or originating subtly in the environment (e.g., when taxing tasks or demanding social situations may make one feel under par compared to one's internal standards of achievement or morality; Strauman & Goetz, Chapter 12, this volume). Self-threat is a hurtful blow (Leary, 2010) because it lands on precious targets. Indeed, the self-concept is experienced as a prized possession (Abelson, 1986). And, remarkably, boosts to self-esteem are valued more than eating a favorite food, engaging in a favorite sexual activity, drinking alcohol, receiving a paycheck, or seeing a best friend (Bushman, Moeller, & Crocker, in press).

There is plenty of evidence that self-threat dents, at least temporarily (Taylor, 1991), self-concept and self-esteem (Alicke & Sedikides, 2011a). For example, negative performance feedback lowers participants' views of their intellectual prowess (Sedikides, Campbell, Reeder, & Elliot, 1998; Wyer & Frey, 1983), whereas negative interpersonal feedback lowers participants' view of their affiliative potential (Fazio, Effrein, & Falender, 1981; Slotter, Gardner, & Finkel, 2010). In addition, self-threat dents both implicit and explicit self-esteem. For example, participants report lower implicit self-esteem following either negative feedback (Dijksterhuis, 2004) or written descriptions of an undesirable personality characteristic (Jones, Pelham, Mirenberg, & Hetts, 2002) and report lower explicit self-esteem following negative feedback (Dutton & Brown, 1997) or rejection (Leary, Tambor, Terdal, & Downs, 1995).

Importantly, self-threat instantiates the self-protection motive. This instantiation generalizes across contexts: performance (Schmader, Johns, & Forbes, 2008; Sedikides & Alicke, in press), interpersonal (Roese & Olson, 2007; Rudich, Sedikides, & Gregg, 2007), relational (Cupach, 2007; Leary, 2010), and organizational (Aguinis, 2007; Cleveland, Lim, & Murphy, 2007). The self-protection motive prompts affective, cognitive, and behavioral strivings that counteract threat, aiming to reestablish psy-

chological equanimity. The self-protection motive guides individuals toward warding off the impact of noxious incidences and thus repairing their self-concept and self-esteem. The motive to protect the self against social forces of imbalance, confrontation, and menace is fundamental. It is grounded in evolution (Sedikides & Skowronski, 2000, 2003), is underpinned by activation of brain regions (Beer, Chapter 29, this volume; Heatherton, 2011) or psychobiological responses (Dickerson, Gruenewald, & Kemeny, 2009), is pancultural (Chiu, Wan, Cheng, Kim, & Yang, 2011; Sedikides & Gregg, 2008), and is pervasive and potent (Alicke & Sedikides, 2009; Sedikides & Green, 2009).

The first section of this chapter offers an illustrative review of the action of the self-protection motive, termed *self-protection strivings*. The second section places self-protection strivings in intrapersonal, inter-individual, and cultural contexts. The third section offers discussion of benefits (both psychological and psychobiological), as well as liabilities, of self-protection strivings. The concluding section addresses the evolutionary utility and neuroanatomical underpinnings of self-protection.

Action of the Self-Protection Motive

Motivational and cognitive self-relevant processes are not mutually exclusive. Rather, they coexist and are closely interwoven (Alicke & Sedikides, 2009, 2011b). Yet, at a minimum, when a particular kind of process occurs in response to self-threat (but not self-praise or self-acceptance) and leads subsequently to self-view or self-esteem positivity, then there is reason to assert that this process is, at least in part, motivated; this assertion is particularly compelling when it can be shown that self-affirmation either tempers or cancels out the threat response, the ensuing rise in self-esteem, or the subsequent elevation in self-view (Sedikides & Alicke, in press). In all, such a process or striving is underpinned by the self-protection motive and functions to rebuild self-concept and self-esteem.

Self-protection strivings often manifest when individuals manage potential self-

threat or cope with actual self-threat. A brief review of such strivings follows.

Managing Potential Self-Threat

Individuals may manage potential self-threat through feedback preferences and expectations, channeling attentional resources, strategic information search, bracing for undesirable outcomes, and self-handicapping or procrastination.

Feedback Preferences and Expectations

People abhor negative information about themselves. Feedback preferences and expectations are particularly illustrative. When participants respond to questions on how much they would like to receive each of several kinds of feedback about themselves (e.g., truthful, positive, improving, negative) from each of several sources (e.g., parents, friends, teachers, classmates), they least prefer receiving negative feedback across sources (Gaertner, Sedikides, & Cai, 2011; Neiss, Sedikides, Shahinfar, & Kupersmidt, 2006). Furthermore, participants expect not to receive negative feedback in their social interactions (Hepper, Hart, Gregg, & Sedikides, 2011). Finally, even the remote possibility of receiving unwanted news leads people to eschew medical testing (i.e., AIDS), especially when they regard the disease as untreatable (Dawson, Savitsky, & Dunning, 2006).

Channeling Attentional Resources

Feedback preferences or expectations may color the way in which people use attentional resources. Generally, participants avoid attending to unflattering information about themselves (Baumeister & Cairns, 1992; Sedikides & Green, 2000, Experiment 2), thereby impeding its registration. This pattern of selective attention follows a mobilization–minimization arc: an initial orientation toward self-threat, followed by an evasion of it (Taylor, 1991). Participants also react to self-threat by focusing on unfavorable characteristics of the source of that threat. When told that they would not be selected (vs. selected) by a prospective dating partner, participants spent more time looking at unflattering information about their partner (Wilson, Wheatley, Kurtz, Dunn, &

Gilbert, 2004). Finally, participants avoid being exposed to interpersonal feedback that will likely be self-threatening by manifesting a robust reluctance to (1) transmit bad news to others (Tesser & Rosen, 1975) and (2) convey bad news about themselves even to those who are contracted to help them (i.e., therapists; Kelly, 2000), out of fear of being ostracized (Rodriguez & Kelly, 2006).

Strategic Information Search

Information search can also be in the service of self-regulation or self-protection. Participants shun evidence about themselves that they consider socially undesirable (vs. socially desirable; Sanitioso, Kunda, & Fong, 1990). When they learn that they failed in a certain domain (i.e., intelligence test, spatial abilities test), participants compensate by expressing a predilection for positive self-relevant information either in the same domain (i.e., intelligence test; Kumashiro & Sedikides, 2005) or in a different domain (i.e., social sensitivity test; Trope & Neter, 2005). Moreover, participants engineer, when possible, their presence or absence from the site of possibly threatening health outcomes. When told that a color change of a test strip to their saliva is a negative (rather than positive) indicator of pancreatic disorder, participants cut short their wait for color change (Ditto & Lopez, 1992). Participants will even distract from (Hayes, Wilson, Gifford, Follete, & Strosahl, 1996) or escape (Baumeister, 1991) self-awareness when they experience the displeasure of self-threat.

Bracing for Undesirable Outcomes

In an effort to prepare for possible bad news, people may decide that an undesirable outcome—such as disease, mediocre academic performance, or unprofitable financial transaction—is more likely to occur than objective evidence would warrant. This phenomenon has been labeled *bracing* (Shepperd, Sweeny, & Carroll, 2006). University students, for example, give optimistic estimates of exam grades in the beginning of the semester (when the prospect of grades is far way and related uncertainty is low), realistic estimates toward the middle of the semester, and pessimistic estimates toward the end of the semester (when the prospect

of a bad grade is close and related uncertainty is high; Shepperd et al., 2006). People brace to a greater extent for undesirable outcomes that are not only imminent, but also self-relevant, important, salient, and rare (Sweeny & Shepperd, 2007).

Self-Handicapping or Procrastination

Although avoiding task failure matters to people (perhaps even more so than attaining task success; Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Roese & Olson, 2007), they may behave in ways that paradoxically maximize the likelihood of failure. In particular, they may manufacture obstacles (e.g., practicing minimally for an upcoming evaluative event) that serve to sabotage their performance and thus deflect the evaluative implications of unhindered performance (McCrea, Myers, & Hirt, 2009; Tice & Baumeister, 1990). Self-threat (in the form of negative feedback) increases behavioral self-handicapping (Rhodewalt & Tragakis, 2002), which in turn succeeds in maintaining a positive self-concept (McCrea, 2008). Notably, procrastination has similar trajectory and functions (Tice & Baumeister, 1997) as self-handicapping.

Summary

People detest negative feedback, direct their attention away from it, engage in information searches that are likely to maximize its absence, brace for it, and self-handicap or procrastinate in anticipation of it. People, then, recoil from information that has self-threat potential. They may also deny it, when they can (Cramer, 2006). But how do people cope with self-threat when it is genuine and inescapable?

Coping with Actual Self-Threat

Individuals may cope with clear and present self-threat through construal mechanisms, social judgments, behavioral processes, and remembering.

Construal Mechanisms

Construal mechanisms affect the perception and evaluation of performance tasks, self-attributes, and personal responsibility.

Task Construal. Following negative (vs. positive) performance feedback, people construe tasks in self-protective ways, that is, in ways that help them reinstate their positive self-concept or self-esteem. For example, participants who receive negative feedback about their intelligence choose to read information that disparages (rather than venerates) intelligence tests (Frey, 1981). Participants who experience task failure (vs. success) regard the task as rather dull, tedious, or non-diagnostic of their abilities (the *sour grapes effect*; Kay, Jimenez, & Jost, 2002; Wilson et al., 2004). Also, participants who receive negative (vis-à-vis positive) feedback about their creativity downgrade the importance of the creativity test (Campbell, Sedikides, Reeder, & Elliot, 2000). In a similar vein, participants construe threatening events by engaging in “what might have been” processes (i.e., counterfactual thinking) as they attempt to restore meaning (Kray et al., 2010), and they counter information that could undermine their important beliefs by engaging in stronger belief advocacy (Gal & Rucker, 2011).

Self-Attribute Construal. Given that concepts are fuzzy (Gregg, Hart, Sedikides, & Kumashiro, 2008), people have plenty of elbow room for self-protective interpretations of their attributes. For example, participants’ interpretation of what counts as deficiency or vice is slanted in favor of attributes that they lack: If they do not possess an attribute, then they are increasingly likely to view it as undesirable (Dunning, Perie, & Story, 1991). Importantly, these slanted interpretations are exacerbated after people receive negative feedback (Dunning, Leuenberger, & Sherman, 1995). The same pattern occurs with the *better-than-average effect*, the phenomenon of rating oneself below the average peer standing on negative characteristics (or above the average peer standing on positive characteristics; Alicke & Govorun, 2005; Hoorens, 1996). For example, both university students and community adult volunteers estimate that they lie less frequently than other study participants—a pattern observed at the conclusion of a diary investigation on lying in daily life (DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). Crucially, people amplify the better-than-average effect as a

function of self-threat. Participants who receive negative (as opposed to positive) feedback on a presumed intelligence task rate themselves as superior to others on important (but not unimportant) traits (Brown, 2011, Study 4).

Responsibility Construal. Deflecting responsibility for failure (and endorsing responsibility for success) is a well-established proclivity termed the *self-serving bias* (SSB; Mezulis, Abramson, Hyde, & Hankin, 2004). Crucially, the SSB is also magnified by self-threat, as exemplified by this chapter's opening quote from *The Guardian* and demonstrated in a meta-analysis by Campbell and Sedikides (1999). The meta-analysis examined several moderators of the SSB, classifying each as high or low in self-threat potential. For example, the moderator *state attention* was classified as self-focused or other-focused. Self-focused attention involves more threat, as participants who are focused on themselves are particularly prone to becoming aware of the discrepancy between their actual and ideal/ought self. Their focus on performance standards, then, augments the psychological impact of negative feedback. The moderator *role* was classified in terms of either actor or observer. Actors experience more self-threat than observers because actors' self-views are directly challenged by negative feedback. Finally, the moderator *interpersonal orientation* was classified as competitive or cooperative. Some participants competed, whereas others cooperated, with another person on a task. Failed competitive participants should experience a higher level of self-threat, given that they would have more at stake on the task outcome. As predicted, the meta-analysis showed that the SSB was indeed amplified by self-threat. Self-focused, actor, and competing participants displayed the SSB to a larger degree than their respective counterparts (other-focused, observer, and cooperative participants).

Social Judgments

Social judgments can be self-protective. Such judgments entail appraisals of evaluators and social comparison; they also entail social distancing, social projection, reaction formation, and identification.

Judgments of Evaluators. In the face of self-threat, people vilify evaluators. For example, participants led to believe that a team captain had selected them last (as opposed to first) for a laboratory team, rated the captain unfavorably, were uninterested in having him or her as a friend, and believed that the captain did not know them well (Bourgeois & Leary, 2001). In addition, self-threat may evoke outgroup rejection. A threat to intelligence or personal insult may lead to stereotyping and prejudice of outgroup members (e.g., women, African Americans, gay men; Fein & Spencer, 1997; Sinclair & Kunda, 1999, 2000). For example, university students view female instructors as less competent than male instructors after receiving negative (vs. positive) evaluations from them.² Relatedly, self-threat shapes procedural fairness judgments. For example, people judge the fairness of a group's or institution's decision-making process largely on the basis of whether this process is likely to protect their values and goals (Skitka, 2002, 2003).

Social Comparison. Social comparison processes often reflect self-protection strivings. People often choose social comparison targets whose performance was worse than theirs on the relevant domain (Wills, 1981). Importantly, exposure to superior others (which often induces a self-threat) decreases the positivity of the self-concept or self-esteem (Blanton, 2001). Comparing oneself to superior others also instigates reactive strategies. For example, upon realizing that another person had the wits to quit a dull and tedious task that they completed, participants inferred that they were "saints" rather than "suckers" (Jordan & Monin, 2008). Also, participants distance themselves from a more successful other when they feel threatened by this person's glory in a domain they consider personally important (Tesser, Campbell, & Smith, 1984), and they will even sabotage this person's chances for success in the same domain (Pemberton & Sedikides, 2001). Occasionally, of course, people are grossly and blatantly outperformed by another person. In this case, they will exaggerate this person's virtues: After all, only a genius could have deposed them to second place (Alicke, LoSchiavo, Zerbst, & Zhang, 1997). Upward social comparison

may be used by low-status group members as a self-protective strategy: Identification with high-status group members softens symbolically the calamity of underprivilege and infuses a sense of self-worth (Jost & Hunyady, 2002).

Social Distancing, Social Projection, Reaction Formation, Identification. Social maneuvering such as social distancing, social projection, reaction formation, and identification are typically in the service of self-protection. In *social distancing*, people attempt to avoid individuals who exhibit negative attributes they themselves suspect they have (Schimel, Pyszczynski, Greenberg, O'Mahen, & Arndt, 2000). In *social projection*, people perceive that another individual possesses their undesirable traits and, in the process, deny that they have them (Schimel, Greenberg, & Martens, 2003). In *reaction formation*, people with moral shortcomings perceive themselves as pillars of morality (Baumeister, Dale, & Sommer, 1998). Finally, in *identification*, people who are criticized claim that they possess the characteristics of an admired or powerful other (Cramer, 1991).

Behavioral Processes

People may also protect themselves against self-threats through behavioral processes such as moral hypocrisy, conspicuous consumption, and antisociality.

Moral Hypocrisy. Self-protection can manifest through *moral hypocrisy*, the phenomenon whereby a person behaves in a way to protect and solidify his or her self-view of morality, while avoiding the actual costs of being moral (Batson & Collins, 2011). Moral hypocrisy has been demonstrated in a host of laboratory experiments that pit self-interest against other-interests (i.e., zero-sum conflicts). The typical task involves assigning oneself versus a stranger either to a positive-consequences task (i.e., earning a raffle ticket for a \$30 gift certificate) or a neutral-consequences (i.e., earning nothing) and dull task. The procedure is as follows. First, participants engage in a behavior that will allow them to appear moral. The behavior involves task assignment. Here, participants either flip a coin in private (thus having the chance not to abide

by the flip outcome) or choosing a "random" assignment that is actually known to them (thus, again, having the chance not to abide by the assignment outcome, due to their prior knowledge). Participants grab the opportunity to appear moral to themselves and to others (i.e., they engage in the coin flip, they opt for the random assignment), while overwhelmingly assigning themselves to the positive-consequences task (Batson & Collins, 2011). Conceptually similar results have been obtained in behavioral economics experiments (Haisley & Weber, 2010). In support of the notion that moral hypocrisy serves a self-protective function, moral hypocrisy is exacerbated when participants have more rather than less at stake (i.e., when they defend their positions of relative power; Lammers, Stapel, & Galinsky, 2010).

Conspicuous Consumption. People compensate for self-threat on a certain dimension by inflating their self-views on another dimension (Baumeister & Jones, 1978; Greenberg & Pyszczynski, 1985; Van Tongeren & Green, 2010). One way in which they may compensate for battered self-concept or bruised self-esteem is through consumption (Gao, Wheeler, & Shiv, 2009), conspicuous consumption with credit (Pettit & Sivanathan, 2011), and consumption of high-status goods (Rucker & Galinsky, 2008; Sivanathan & Pettit, 2010). For example, participants threatened with negative (vs. positive) performance feedback choose to purchase a product using credit (a less psychological painful method) over cash (which requires savings; Pettit & Sivanathan, 2011, Experiment 1). Also, participants threatened with negative (vs. positive) performance feedback are willing to pay more for a high-status object (i.e., a photograph described as antique and rare) but not for a low-status object (i.e., a photograph described as mass-produced and widely available; Sivanathan & Pettit, 2010, Study 1). Similarly, lower-income or chronically threatened participants, in an apparent effort to raise their self-esteem, are willing to pay more for status goods (i.e., a luxury car) than are higher-income participants (Sivanathan & Pettit, 2010, Study 3).

Antisociality. Perceived threat from a social source can lead to unhelpfulness toward that source, but only when one's behavior can be rationalized as caused by external

factors rather than labeled as prejudiced. For example, white participants are less likely to help black Americans when their relative lack of helping can be attributed to situational barriers such as risk (Saucier, Miller, & Doucet, 2005). Also, social rejection (as opposed to social acceptance) increases the prevalence of antisocial behaviors such as giving inauspicious evaluations of potential job candidates, dispensing large amounts of hot sauce to persons who dislike spicy food, and blasting strangers with prolonged and intense white noise (McGregor et al., 1998; Twenge, Baumeister, Tice, & Stucke, 2001). Finally, social rejection may underlie acts of mass violence (Leary, Kowalski, Smith, & Phillips, 2003; Richman & Leary, 2009). Antisocial behavior can be, in part, a way to cope with self-threat and reinstate one's self-worth or regain control (DeWall et al., 2011; Warburton, Williams, & Cairns, 2006).

Remembering

Memory of actual self-threats is often strategic. In particular, individuals may differentially remember personally relevant events for direct self-protection (i.e., to minimize threat), for self-enhancement purposes (i.e., elevating self-concept and self-esteem positivity), or for self-improvement purposes (i.e., bettering a characteristic or skill).

Self-Protective Use of Memory. People remember poorly information that has negative (vs. positive) connotations for their self-concept or self-esteem (Erdelyi, 2006; Skowronski, 2011). For example, following cholesterol screening, patients are over twice as likely (1, 3, or 6 months later) to recall their cholesterol as being lower rather than higher (Croyle et al., 2006). When undergraduate students cheat by paying themselves a disproportionate amount of money for having completed a math test, they remember poorly items of the honor code they had read before undertaking the test (Shu, Gino, & Bazerman, 2011). When recollecting their daily experiences, individuals recall poorly their bad versus good behaviors but do not manifest this recall discrepancy for the behaviors of others (D'Argembeau & Van der Linden, 2008). Moreover, in laboratory experiments in which the amount and type of negative feedback is strictly equated for self and other, participants re-

call poorly negative (as opposed to positive) information about their own important self-attributes but not about others' important self-attributes (Sedikides & Green, 2009). This recall disparity is magnified when the diagnosticity (thus, the self-threat) of negative feedback is high rather than low (Green & Sedikides, 2004).

Self-Enhancing Use of Memory. People remember selectively those qualities that they estimate will offer them the largest self-enhancement margin. For example, participants led to believe that extraversion is conducive to success rate themselves as more extraverted (Kunda & Sanitioso, 1989), recall extraverted feedback more accurately (Sanitioso & Wlodarski, 2004, Study 1), recall more general and unverifiable (than specific and verifiable) memories related to extraversion (Brunot & Sanitioso, 2004), and perceive the extraversion recall task as easier (Sanitioso & Niedenthal, 2006). Participants led to believe that introversion is conducive to success display the reverse pattern of results.

Self-Improving Use of Memory. People misremember their past to feel as if they are improving (Wilson & Ross, 2011). For example, having taken a study skills class, participants misremember their prior study skills as lower than they actually were; later, they misremember their course performance as better than it actually is (Conway & Ross, 1984). Relatedly, people perceive threatening personal experiences as remote and perceive uplifting personal experiences as recent (Wilson, Gunn, & Ross, 2009). For example, having received either negative or positive feedback on a negotiation task, participants remembered the event 3 months later as remote in time if they received negative feedback and as recent if they received positive feedback (Sanna, Chang, & Carter, 2004). Such recollections help bolster one's sense of improvement and one's self-esteem; indeed, positive, compared to negative, experiences that seem recent in time elevate self-esteem (Broemer, Grabowski, Gebauer, Ermel, & Diehl, 2008), especially among happy individuals (Gebauer, Broemer, Haddock, & von Hecker, 2008). Also, people remember negative feedback about their important attributes better when there is a potential for self-improvement. For exam-

ple, they remember negative feedback better when they believe that their central attributes are modifiable (rather than unmodifiable; Green, Pinter, & Sedikides, 2005), when they have been primed with improvement-related words (rather than neutral words; Green, Sedikides, Pinter, & Van Tongeren, 2009, Study 1), and when the source of the feedback is a close other (rather than a distant other; Green et al., 2009, Study 2).

Summary

Individuals cope with actual self-threat several ways. The first comprises *construal mechanisms*, that is, the self-protective interpretation of performance tasks, self-attributes, and outcome responsibility. The second comprises *social judgments*, that is, self-protective inferences about evaluators, social comparisons, and perceived agents of threat (e.g., social distancing, social projection). The third way comprises *behavioral processes*, that is, self-protective behavioral responding, such as moral hypocrisy, conspicuous consumption, and antisociality. Individuals may also adopt different coping strategies depending on characteristics of a negative event, such as a health scare. For example, they may opt for watchful waiting when event severity, likelihood, and controllability are low; for active change when event likelihood and controllability are high; and for acceptance when event controllability is low (Sweeny & Shepperd, 2009). Another example of subtlety in behavioral responding is the preference for omission rather than commission in economic games in which a participant (taker) can take money away from another person (owner) either by omission or by commission. Knowing that commissions receive harsher third-party condemnation and punishment than omissions, participants, in a strategic self-protective move, use omissions more frequently despite the fact that omissions are worse for both takers and owners (DeSchioli, Christner, & Kurzban, 2011). The fourth way involves *memory*. Individuals may remember negative information about themselves strategically, such as to minimize self-threat (i.e., self-protect), increase self-concept and self-esteem positivity (i.e., self-enhance), or better themselves in a skill domain (i.e., self-improve).

Individuals often have to cope with a threat not only to their individual self-

esteem but also to their collective self-esteem. Members of disadvantaged (e.g., minority) groups maintain their self-esteem (Gray-Little & Hafdahl, 2000) by engaging in various self-protection strivings (Crocker & Major, 1989; Major & Eliezer, 2011): (1) *responsibility construal* (i.e., ascribing negative feedback directed at them to prejudice against the ingroup), (2) *self-attribute construal* (i.e., playing up domains on which the ingroup excels and playing down domains on which the ingroup falls behind), and (3) *social comparison* (i.e., comparing unfavorable outcomes with those of ingroup rather than outgroup members).

Members of equal-status groups may also engage in self-protection strategies (Gaertner, Sedikides, & O'Mara, 2008; Mussweiler, Gabriel, & Bodenhausen, 2000). Such strategies involve downgrading one's ingroup in order to protect one's positive self-concept. For example, individuals who receive negative feedback about their personality (e.g., "You are moody") self-protect through a version of responsibility construal: by claiming that all members of their ingroup, not just them, are moody (Gaertner, Sedikides, & Graetz, 1999, Experiment 1). Individuals also experience more negative emotions when the same threat is directed to them personally as to the ingroup (Gaertner et al., 1999, Experiment 3). Such patterns hold both for low and high ingroup identifiers and for members of both natural and minimal groups (Gaertner, Sedikides, Vevea, & Iuzzini, 2002), and they also generalize across cultures (Gaertner et al., 1999, Experiment 4).

In all, self-protection strivings impact powerfully on feelings, cognitions, and behavior. Yet, as powerful as this impact may be, it is tempered by intrapersonal, inter-individual, and cultural factors (Alicke & Sedikides, 2009, 2011a; Gregg, Sedikides, & Gebauer, in press; Sedikides & Gregg, 2008). This is the next topic.

Self-Protection in Intrapersonal, Interindividual, and Cultural Context

Intrapersonal factors that soothe or curb self-protection strivings include psychological buffers (i.e., self-concept elements, self-processes) and the action of other self-

evaluation motives (i.e., self-assessment, self-verification). Interindividual factors are individual differences. Finally, cultural context consists mainly of the individualistic (e.g., Western) versus collectivistic (e.g., East Asian) dimension.

Intrapersonal Context

Psychological Buffers

Self-protection strivings are attenuated or canceled out when a psychological resource (i.e., self-concept element, self-process) is boosted and consequently acts as a psychological buffer against threat—a phenomenon known as *self-affirmation* (Sherman & Hartson, 2011; see also Hobfoll, 1989; Lazarus & Folkman, 1984). This phenomenon is predicted and explained by the *substitution principle* (Tesser, 2000), according to which psychological resources are often interchangeable: One resource can serve as a buffer for another.

The literature abounds with examples in which a *self-concept element* (e.g., personal values, personal characteristics), when boosted, quiets self-protection strivings on an unrelated domain. For example, when people indicate, list, or elaborate upon values central to their identity, (1) their protective self-construals abate (Cohen, Aronson, & Steele, 2000), (2) their tendency to self-protect through counterattitudinal change in the forced-compliance paradigm is short-circuited (Aronson, Cohen, & Nail, 1999), (3) their inclination to distance themselves from successful (in the same performance domain) friends is reduced (Tesser & Cornell, 1991), (4) their propensity to stereotype outgroup members is weakened (Fein & Spencer, 1997), (5) their partiality for compensatory consumption subsides (Sivanathan & Pettit, 2010), and (6) their unhealthy eating behavior is lessened (Epton & Harris, 2008).

The literature also abounds with examples in which a *self-process* (e.g., positive mood, nostalgia, self-esteem, control, hope, feelings of success, self-control strength, self-concept clarity, abstract self-construal, relationship closeness), when boosted, quiets self-protection strivings on a related domain. For example, infusion of a self-process (1) increases the likelihood of seeking and accepting negative feedback (Albarracín & Mitch-

ell, 2004; Critcher, Dunning, & Armor, 2010; Kumashiro & Sedikides, 2005; Raghunathan & Trope, 2002; Trope, Gervy, & Bolger, 2003), (2) prevents a drop in self-esteem level or stability (Updergraff, Emanuel, Suh, & Gallagher, 2010; Vess, Arndt, & Schlegel, 2011), (3) negates strategic self-construals (Jordan & Monin, 2008; Vess, Arndt, Routledge, Sedikides, & Wildschut, in press), (4) nullifies the self-protective use of memory (i.e., recall for negative feedback on important self-aspects equals recall for positive feedback on important self-aspects; Green, Sedikides, & Gregg, 2008; Sedikides & Gregg, 2009), and (5) decreases anxiety or stress (Bertrams, Englert, & Dickhaeuser, 2010; Ritchie, Sedikides, Wildschut, Arndt, & Gidron, in press; Rutjens, van der Pligt, & van Harreveld, 2009; Shaver & Mikulincer, 2011).

Self-Protection, Self-Assessment, and Self-Verification

In coping with a demanding social environment, people deploy not only the self-protection motive but also other cardinal self-evaluation motives, such as self-assessment and self-verification. This deployment is not necessarily conscious or deliberate. Although the self-protection motive works to prevent negativity in the self-concept (Sedikides & Strube, 1997), the self-assessment motive works to increase its accuracy (by favoring true over false self-construals; Trope, 1980), and the self-verification motive works to maintain its consistency (by favoring long-existing over newly formed self-construals; Swann & Buhrmester, Chapter 19, this volume). Also, although self-protection forestalls the pain of criticism (Leary & Leder, 2010), self-accuracy alleviates uncertainty-induced anxiety (Hogg, 2007), and self-verification counters unpredictability (Swann & Buhrmester, Chapter 19, this volume).

Each self-evaluation motive may occasionally override the others. For example, people sometimes ask themselves questions that avoid negative answers as opposed to diagnostic or confirmatory answers (thus prioritizing self-protection; Sedikides, 1993). People may also select feedback on the basis of its diagnosticity rather than its negativity avoidance (thus prioritizing self-assessment; Trope, 1986). Finally, people may choose negative confirming feedback over positive

disconfirming feedback (thus prioritizing self-verification; Kwang & Swann, 2010).

The self-evaluation motives may work synergistically for a higher goal (e.g., improvement; Gregg, Hepper, & Sedikides, in press; Sedikides & Hepper, 2009). For example, self-protection may yield to *self-assessment* in facilitating task success—that is, pursuing rather than avoiding accurate self-knowledge may lead to selection of tasks that entail high probability of success; also, self-protection may yield to *self-verification* in facilitating relational harmony—that is, pursuing self-verifying feedback may lead to engagement in activities of mutual interest. Yet the motives may also compete. How would one handle feedback that was both critical and credible? Would one self-protect or self-assess, and would one self-protect or self-verify?

Self-Protection and Self-Assessment. Having an accurate view of oneself is considered a foundation of mental health (Maslow, 1950) and sound judgment (Dunning, Heath, & Suls, 2004). As such, accuracy concerns would be expected to curtail self-protection strivings, and they do (Gregg, Sedikides, & Gebauer, in press; Sedikides, Gregg, & Hart, 2007).

Self-protection strivings subside when people lack room for machinating wishful self-views. For example, although participants rate themselves below the average peer on negative characteristics, this pattern is lessened and self-evaluations become more evenhanded when the traits are well-defined rather than ambiguous (Dunning, Meyerowitz, & Holzberg, 1989) and when the peer is a concrete rather than generic other (Alicke, Klotz, Breitenbecher, Yurak, & Vredenburg, 1995). As another example, when people write down reasons why they might or might not possess particular personality traits (i.e., engage in explanatory introspection), they rate themselves less positively on those traits (Sedikides, Horton, & Gregg, 2007). In addition, self-protection strivings recede when people are obliged to face the hard facts. For example, when people are socially accountable (i.e., need to explain and justify their performance appraisal), they focus on performance-related weaknesses and, as a result, underappraise their performance compared to those who are un-

accountable (Sedikides, Herbst, Hardin, & Dardis, 2002). As another example, people soften their self-presentations when the audience consists of friends (who are familiar with their background) rather than strangers (Tice, Butler, Muraven, & Stillwell, 1995). Finally, people are more interested in accurate feedback before making a decision but engage in self-protective rationalization after making a decision (Armor & Taylor, 1998), and people seek accurate feedback about self-views they consider changeable but seek self-protective feedback about self-views they consider unchangeable (Dauenheimer, Stahlberg, Spreeman, & Sedikides, 2002).

Self-Protection and Self-Verification. Evidence for the self-verification motive originates in behavioral feedback choices. In the prototypical study, participants with negative or positive self-views are offered the option to read an unfavorable versus favorable account of their personality, or the option to meet an interaction partner who views them unfavorably versus favorably. Evidence for self-protection strivings is obtained if participants with negative self-view choose favorable accounts or partners, whereas evidence for self-verification strivings would be obtained if these participants choose unfavorable accounts or partners. Evidence is mixed, with some studies reporting that participants with either positive and negative self-views pursue and remember favorable feedback (Carnelley, Ruscher, & Shaw, 1999; Sedikides, 1993; Sedikides & Green, 2004; Sedikides & Gregg, 2008), and other studies reporting that participants pursue feedback congruent with the valence of their self-views (Kwang & Swann, 2010; Swann & Buhrmester, Chapter 19, this volume). In addition, the dueling motives are said to engage an “affective–cognitive crossfire,” such that self-verification registers mostly on cognitive indices, whereas self-protection registers mostly on affective indices. Specifically, participants with negative self-views, who select negative feedback when they have time to think, nonetheless select positive feedback under cognitive load (Swann, Hixon, Stein-Seroussi, & Gilbert, 1990).

Yet many of the key findings seemingly in support of self-verification strivings are equivocal and may reflect self-protection strivings, as argued by *raison oblige* theory

(ROT; Gregg, 2009; Gregg, Sedikides, & Gebauer, in press). Persons with negative self-views opt for unfavorable over favorable information not because they desire their self-views to be true but because they consider contradictory information as inadmissible or incredible. These persons find themselves rationally obliged to endorse information that they would prefer not to characterize them. Thus, they regard unfavorable feedback to be worthy of consideration and selection (i.e., credible), especially when they believe that they are unlikely to change in the direction of favorable feedback. Preliminary evidence (Gregg, De Waal-Andrews, & Sedikides, 2011) backs ROT. Participants with negative and positive self-views do not differ in how much they desire unfavorable versus favorable feedback about them to be true, but they do differ in how plausible they find that feedback to be. For example, participants with negative self-views who choose to read an unfavorable (over a favorable) personality profile maintain afterwards that although they found the selected unfavorable profile to be more plausible, they still preferred the rejected favorable profile to be true. As an aside, responses to inquiries about one's desire for feedback to be true cannot be explained away in terms of the cognitive-affective crossfire: Such responses are as much cognitive as they are affective.

The ROT perspective on self-verification phenomena is generally congruent with Leary's (2007) proposal that many self-verification effects (e.g., Swann, De La Ronde, & Hixon, 1994; Swann & Ely, 1984; Swann & Pelham, 2002) arise from interpersonal concerns for social acceptance. Although people with negative self-views desire to be seen positively by others, they encounter serious risks when they are seen more positively than they see themselves. As others get to know them, sooner or later others realize that they live life on false pretenses. Disappointed, disillusionment, accusations of deception, and ultimately rejection will follow. In all, people with negative self-views will sacrifice short-term positivity in social interactions and in partners for the sake of long-term interpersonal acceptance, even when acceptance comes at the expense of having their flaws identified accurately by others. Note, though, that Leary's account of self-verification effects is compatible with

a self-threat explanation. Individuals with negative self-views endorse unfavorable (but accurate) feedback from social interaction partners out of threat or fear of being found out and ultimately rejected by them.

Interindividual Context

Self-protection strivings may also be constrained or moderated by individual differences. At issue is whether people will engage in active responses (i.e., direct, remedial, or approach-oriented) rather than passive responses (i.e., indirect, defensive, or avoidance-oriented) to repair their self-concept and self-esteem (Park, 2010). Implicit personality theory moderates action patterns (Walton, Paunesku, & Dweck, Chapter 7, this volume; Nussbaum & Dweck, 2008). In particular, incremental theorists—those who believe that intelligence is changeable—opt for active responding (e.g., a tutorial on unmastered material), whereas entity theorists—those who believe that intelligence is fixed—opt for passive responding (e.g., a tutorial on already mastered material).

Likewise, some persons are more likely than others to engage in active rather than passive responses to self-threat. These are persons (1) high on self-esteem (Lemay & Clark, 2009; MacDonald & Leary, Chapter 17, this volume; Wiersema, van der Pligt, & van Harreveld, 2010) and attachment security (Gabriel, Kawakami, Bartak, Kang, & Mann, 2010), or (2) low in fear and anxiety (Perkins, Cooper, Abdelall, Smillie, & Corr, 2010), neuroticism (Wasylikiw, Fabrigar, Rainboth, Reid, & Steen, 2010), self-esteem fragility (Meier, Semmer, & Hupfeld, 2009), sugrophobia (i.e., fear of being duped; Vohs, Baumeister, & Chin, 2007), rejection sensitivity (Overall & Sibley, 2009), and sandbagging (Gibson, 2007).

Cultural Context

Culture (Cross & Gore, Chapter 27, this volume) may also moderate self-protection strivings, as suggested by the literature on personal goals. *Personal goals* (defined here as daily self-relevant aims) can be characterized as approach or avoidance goals (Elliot & Sheldon, 1998). Approach goals guide people toward desirable goals (e.g., "Do well at my job," "Strengthen my romantic rela-

tionship”), whereas avoidance goals guide people away from undesirable goals (“Avoid doing poorly at my job,” “Avoid deterioration in my romantic relationship”). Interestingly, the potency of approach versus avoidance goals differs across cultures. Approach goals are relatively stronger in individualist (e.g., Western) culture, but avoidance goals are relatively stronger in collectivistic (e.g., East Asian) culture (Elliot, 2008; Elliot, Chirkov, Sheldon, & Kim, 2001; Hamamura, Meijer, Heine, Kamaya, & Hori, 2009).

An implication of these cultural differences is that self-protection will be at least as strong, if not stronger, in East Asian culture as it is in Western culture (Hepper, Gramzow, & Sedikides, 2010). The available evidence is consistent with this proposition (Chiu et al., 2011). The modesty norm is stronger in East Asian than in Western culture (Sedikides, Gregg, & Hart, 2007), East Asians derive (implicit) self-esteem through modest self-presentations (Cai et al., 2011), and East Asians like self-effacers better than Westerners do (Bond, Leung, & Wan, 1978). It is not surprising, then, that East Asians show excessive concern with face saving and the avoidance of embarrassment (Gudykunst & Nishida, 1993; Ho, 1976; Hwang, 1987). Thus, they self-protect more in anonymous than in public settings (Kudo & Numazaki, 2003), in competitive than in noncompetitive settings (Takata, 2003), when situational considerations (e.g., monetary reward) overpower cultural norms (Suzuki & Yamagishi, 2004), and through others than through self-initiated action (Muramoto, 2003). Importantly, East Asians self-protect strategically, that is, on attributes that are culturally and personally important: They self-protect more on communal than on agentic attributes (Sedikides, Gaertner, & Toguchi, 2003; Sedikides, Gaertner, & Vevea, 2005), and they are more likely than Westerners to deny, along norms of appropriateness, having enacted “bad” communal behaviors, such as ever having dropped litter on the street (Lalwani, Shavitt, & Johnson, 2006). As further evidence for the potency of the self-protection motive East Asians are more likely to make favorable self-judgments by repudiating negative self-attributes (e.g., “I am flawless”) than by affirming positive self-attributes (e.g., “I am perfect”), whereas the reverse is true for Westerners (Kim, Chiu, Peng, Cai, & Tov, 2010).

Summary

Intrapersonal factors, interindividual factors, and cultural context temper, in various degrees, the self-protection motive. Examples of intrapersonal factors are psychological buffers and other self-evaluation motives. Psychological buffers are aspects of the self-system (e.g., personal values, states such as positive mood or a sense of control) that, when boosted, minimize ensuing self-protection strivings. Other self-evaluation motives include self-assessment and self-verification. Contextual characteristics (e.g., the degree to which one’s self-judgment is verifiable or accountable) that strongly activate self-assessment concerns may lessen self-protection strivings. Similarly, contextual characteristics (e.g., extent to which the received negative feedback is plausible and credible) that strongly activate self-verification concerns may lower self-protection strivings. The scope and impact of the self-protection motive is further contingent on intraindividual factors (i.e., implicit personality theory, self-esteem, or attachment style). Finally, cultural context may moderate the expression of self-protection strivings, with such strivings more prevalent in East Asian culture (which emphasizes an avoidance orientation) than in Western culture (which emphasizes an approach orientation).

Benefits and Liabilities of Self-Protection

Self-protection strivings confer both psychological and psychobiological benefits and liabilities.

Psychological Benefits and Liabilities

Benefits

The restoration of one’s positive self-concept and self-esteem constitutes key psychological benefit of self-protection strivings, as the research reviewed suggests. It is due to the action of self-protection that the person maintains psychological equanimity in the midst of threats to the self. A positive self-concept and self-esteem, in turn, are associated with a host of advantages, including psychological health and longevity, task persistence and achievement, norm adherence and law

abundance, satisfying social and interpersonal relationships, and the more effective pursuit of interests or goals (Alicke & Sedikides, 2009; Baumeister, Campbell, Krueger, & Vohs, 2003; Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Goorin & Bonanno, 2009; Murray & Holmes, 2008; Sedikides & Gregg, 2008; Sedikides, Gregg, & Hart, 2007; Swann, Chang-Schneider, & McClarty, 2007).

The preceding discussion largely illustrates the somewhat circuitous benefits of self-protection, benefits stemming from a protection-induced elevation of the self-concept or self-esteem. Self-protection can also have direct benefits. Bracing and defensive pessimism are cases in point. *Bracing* prompts action likely to reduce the likelihood of an undesirable outcome (e.g., a low grade on an exam; Carroll, Sweeny, & Sheperd, 2006). Likewise, *defensive pessimism* allows people to harness their doom-and-gloom predictions and in turn fuels behavior likely to overturn these predictions (Norem & Cantor, 1986). If, against all efforts, the outcome is indeed undesirable, bracing and defensive pessimism will have prepared the individual for the intensity of negative emotions associated with the outcome: The emotion will be felt at lower intensity and will be more manageable. Counterfactuals similarly alleviate negative emotional states (e.g., regret; Epstude & Roese, 2008).

There are other direct self-protection benefits to be had. From an evolutionary standpoint (Kirkpatrick & Ellis, 2001), successful adaptation (i.e., adaptation that secures the survival and reproduction of the species rather than guarantees a psychological utopia) may necessitate the experience of psychological states that are aversive or the enactment of behaviors that are antisocial. For example, the painful drop in state self-esteem induced by social exclusion may promote efforts for social reintegration so as to ease that pain (Leary & Baumeister, 2000). Also, the terror of death may be alleviated by the endorsement of a meaningful worldview, whose standards of value necessitate that the members of some marginal social groups be unjustly condemned (Greenberg, Solomon, & Arndt, 2008; Pyszczynski, Greenberg, & Arndt, Chapter 18, this volume); likewise, implicit self-threat may exacerbate automatic intergroup bias (Rudman, Dohn, & Fairchild, 2007). Other adaptive

behaviors associated with self-protection are the reduced susceptibility to (1) rationalizing health-impairing habits such as smoking (Gibbons, Eggleston, & Benthin, 1997), (2) incurring the wrath of underperforming others by being the target of upward social comparison (Exline & Lobel, 1999), and (3) harming one's physical health by increasing the risk of sunstroke, sunburn, and skin cancer through sunbathing (Leary, Tchividjian, & Kraxberger, 1994). Finally, self-protection may allow more room for the action of self-improvement strivings (Sedikides, 2009), which are likely to facilitate the acquisition of new skills (Epstude & Roese, 2008), the strengthening of close relationships (Green et al., 2009), and the effective regulation of the social environment (Sedikides & Hepper, 2009).

Liabilities

Of course, self-protection is not always associated, or does not always lead to, beneficial psychological consequences. For example, self-affirmed participants exhibit more inferential biases (e.g., confirmation bias; Munro & Stansbury, 2009) and are more tolerant of health hazards (e.g., warning labels on cigarette packs; Harris, Mayle, Mabbott, & Napper, 2007) than control participants. Attempts to compensate for failure may lead individuals to set inappropriately high goals and end up with fewer rewards (Baumeister, Heatherton, & Tice, 1993). Self-handicapping and procrastination may be effective toward the maintenance of one's positive self-concept (McCrea, 2008) but at the cost of performance impairment (Tice & Baumeister, 1997; Zuckerman & Tsai, 2005) and social censure (Rhodewalt & Tragakis, 2002). Hiding undesirable aspects of themselves from therapists (Kelly, 2000) may protect people from ostracism (Rodriguez & Kelly, 2006) but also deprive them of health benefits. Deploying self-protection strategies with force rather than moderation (as narcissistic individuals do; Morf, Horvath, & Torchetti, 2011; Rhodewalt, Chapter 26, this volume) may ultimately backfire, resulting in one being despised and excluded. More generally, excessive self-protection may harm dyadic or intragroup relationships (Hoorens, 2011).

In all, self-protection, albeit conducive mostly to beneficial psychological outcomes,

can under certain circumstances be dysfunctional to the individual. The circumstance of a grossly unreceptive or adverse social environment is a case in point. Self-protection does not do much good when the threat is too strong and persistent because individuals may quit in hopelessness rather than cope in optimism (vanDellen, Campbell, Hoyle, & Bradfield, 2011).

Psychobiological Benefits and Liabilities

Benefits

Self-protection also confers psychobiological benefits to the individual (Arndt & Goldenberg, 2002; Dickerson, Gruenewald, & Kemeny, 2009). To begin with, self-threat alarms the body and prepares it for action. Accompanying psychobiological activity, such as that of the hypothalamic–pituitary–adrenal (HPA) axis, is an indicator of threat signaling and response. For example, a meta-analysis indicated that self-threat (e.g., stressors with evaluative implications, such as an audience) influenced the hormonal end product of the HPA axis, and in particular the secretion of cortisol: It was four times higher than in the control condition (Dickerson & Kemeny, 2004). Subsequent experimental research verified this pattern (Dickerson, Mycek, & Zaldivar, 2008). Self-threat also increases activity in the autonomic and cardiovascular system (e.g., skin temperature, heart rate, blood pressure; Burish & Horn, 1979; Gruenewald, Dickerson, & Kemeny, 2007; Tomaka, Blascovich, Kelsey, & Leiten, 1993).

Yet self-threat is swiftly countered by the activation of the self-protection motive. Proinflammatory immune activity is an indication of such activation. Meta-analytic findings showed that both chronic and acute stressors under certain conditions can increase levels and production of proinflammatory cytokines (i.e., which coordinate the immune system's response to pathogens or injury; Segerstrom & Miller, 2004; Steptoe, Hamer, & Chida, 2007). Results of experimental research have been consistent with these findings (Dickerson, Gable, Irwin, Aziz, & Kemeny, 2009).

The self-protective motive, in turn, operates through self-protective strivings, self-esteem, or self-affirmation to soothe the psychobio-

logical system. For example, self-protective strivings (e.g., advantageous task construal in the case of failure) can lower one's arousal (Brown & Rogers, 1991). Priming with autonomous motivation (vs. controlled motivation) constructs before a stressful interview reduces subsequent cardiovascular arousal (Hodgins et al., 2010). Positive (vs. negative) feedback about one's personality or intelligence increases cardiac vagal tone (Martens et al., 2010, Studies 1 and 2), which reflects the influence of the parasympathetic nervous system on the heart and predicts the progression both of cardiovascular and autoimmune diseases (Masi, Hawley, Rickett, & Cacioppo, 2007; Thayer & Lane, 2007; Yien et al., 1997). Value-based self-affirmation mitigates HPA axis activation by lowering cortisol levels in response to stressful tasks (Creswell et al., 2005). Distancing from oneself, while reflecting on negative memories, is associated with decreased cardiovascular reactivity (Ayduk & Kross, 2010). Finally, successful and chronic implementation of self-protection strivings are associated with higher cardiac vagal tone (Segerstrom & Nes, 2007), reduced cortisol reactivity (Ford & Collins, 2010), as well as lower baseline cortisol levels, more rapid cardiovascular recovery, and lower cardiovascular stress responses (Taylor, Lerner, Sherman, Sage, & McDowell, 2003).

Liabilities

Under some circumstances self-protection may impart liabilities rather than benefits (Dickerson, Gruenewald, & Kemeny, 2009). For example, self-threats that are too robust or prolonged may overtax physiological systems (McEwen, 1998). Uncontrollable self-threats may also overtax physiological systems, as they are associated with slower return to baseline cortisol levels (Dickerson & Kemeny, 2004). In both cases, self-protection may not constitute the optimal long-term response compared to other options, such as seeking social support and introducing occupational or lifestyle changes (e.g., switching to a new network of friends, relocating, finding a new job; Sedikides & Hepper, 2009). For similar reasons, unyielding self-protection may also not constitute the optimal response for individuals who are, or perceive themselves to be, under

unrelenting self-threat. Examples include individuals with negative self-views or self-esteem (Pruessner, Hellhammer, & Kirschbaum, 1999), individuals with high levels of poststressor ruminative thinking (Zoccolla, Dickerson, & Zaldivar, 2008), adolescents from low socioeconomic backgrounds (Chen & Matthews, 2001), and members of low-status groups (Gruenewald, Kemeny, & Aziz, 2006).

Summary

Self-protection confers psychological benefits and liabilities. Benefits include improved psychological health, and generally more effective personal and interpersonal functioning. These benefits are particularly advantageous to societal minorities, as they typically have to cope with higher levels of self-threat than societal majorities. Yet excessive self-protection can offset some of these benefits and contribute to liabilities such as performance decrements and social alienation.

Self-protection also confers psychobiological benefits and liabilities. Self-threat alarms the body and prepares it for action through cortisol secretion, autonomic or cardiovascular increases, and proinflammatory immune activity. Subsequently, self-protective strivings lower cortisol levels, decrease cardiovascular arousal and reactivity, and increase cardiac vagal tone. Yet prolonged, robust, or uncontrollable self-threats may overtax the physiological system (e.g., as manifested, by relatively slow returns to baseline cortisol levels), especially among individuals with negative self-views and self-esteem, high levels of poststressor ruminative thinking, or low socioeconomic backgrounds.

Concluding Notes

The self-protection motive is prevalent and powerful, and it confers substantial psychological and psychobiological benefits. It is a motive of apparent evolutionary significance. Since Lucy, the diminutive and human-like *Australopithecus afarensis*, walked upright 3.2 million years ago, the self-protection motive has aided immeasurably the survival and reproduction of ancestral hominids (Leary & Buttermore, 2003; Sedikides & Skowronski, 1997, 2000; Sedikides, Skowronski, &

Dunbar, 2006). It did so by guiding responses to social pressures such as being vigilant toward safeguarding the young against predation, overcoming social loafing, engaging in cooperative defense of food sources and mates, knowing one's standing in the group and steering clear of potential harmful (if not fatal) challenges to the dominance hierarchy, avoiding violations of group norms, and entering into cooperative alliances to counter external threat.

Evolution has acted on self-protection in such a way as to hide it from the self-protector. Indeed, self-deception may have evolved to promote interpersonal deception (von Hippel & Trivers, 2011) through several routes. First, self-deception allows the individual to suppress facial and verbal cues that would otherwise reveal conscious intent to others. Also, self-deception can minimize the cognitive load associated with holding two contradictory goals in mind: to deceive and not to be caught. This, in turn, is likely to give off a confident, persuasive appearance. Finally, self-deception can minimize social punishment, if discovered, as the deceiver can boldly claim innocence. The act of being both the deceiver and the deceived is facilitated by the dissociation of mental processes (i.e., implicit vs. explicit).

Self-protection strivings are reflected in brain activity. Indeed, recent research has provided insights into neuroanatomical structures underlying self-protection (Beer, Chapter 29, this volume; Heatherton, 2011). For example, the amygdala, the dorsal region of the anterior cingulate cortex (dACC), and the anterior insula play an important role in the detection of threat and activation of the self-protective motive.

Protecting the self is a fundamental motive, perhaps stronger than enhancing the self (Baumeister et al., 2001; Rozin & Royzman, 2001; Vaish, Grossmann, & Woodward, 2008). For example, perceptions of not embodying one's "undesired self" predict well-being better than perceptions of embodying one's "ideal self" (Ogilvie, 1987). A task for future research is to understand better how, when, and for whom self-protection facilitates, magnifies, or minimizes self-enhancement (Alicke & Sedikides, 2009, 2011a). Although the two motives have common functions (i.e., safeguarding and fostering the positivity of the

self-concept and self-esteem), they may attain these functions through largely different pathways and trajectories. It may well be that self-protection is the cornerstone upon which self-enhancement relies to effect its own psychosocial advantages and liabilities.

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Notes

1. The two motives serve other, specialized functions. For example, self-enhancement may raise pride (Tracy, Cheng, Robins, & Trzesniewski, 2009), whereas self-protection may alleviate anxiety (Cramer, 2008; Pyszczynski, Greenberg, & Arndt, Chapter 18, this volume) or unpleasant self-conscious emotions (e.g., shame, guilt, embarrassment; Tangney & Tracy, Chapter 21, this volume). Yet for reasons of simplicity, thematic coherence, and space, this chapter restricts coverage to the self-concept and self-esteem functions of the two motives. Of course, increases in self-esteem may covary with decreases in anxiety or in unpleasant self-conscious emotions given evidence of a common temperamental core (Neiss, Sedikides, & Stevenson, 2006; Neiss, Stevenson, Legrand, Iacono, & Sedikides, 2009).
2. An alternative account is that efforts to repair self-esteem following self-threat undermine the motivation to inhibit prejudicial responding toward outgroup members (Allen & Sherman, 2011).

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