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ABSTRACT

Findings from research on self-enhancement and self-protection are generally understood to provide evidence for "motivated bias." Despite their ubiquity, the meaning of "motivation," "bias," and "motivated bias" are usually left to intuition. In this article, we clarify the meaning of these terms as they apply to constructing and maintaining desired self-views. We argue that preserving psychological homeostasis (i.e., emotional equilibrium) is as important as preserving biological homeostasis, and indeed, that psychological and biological homeostasis are two aspects of one overarching balancing principle. We argue further that, although maintaining a favorable identity can sometimes lead to errors from normative models, the bias toward sustaining psychological homeostasis is just as adaptive as the bias toward sustaining a properly functioning physiology.

When literary critics credit William Shakespeare with creating what it means to be "human" (Bloom, 1998), they praise him for representing, with depth and nuance, the psychological motivations that bedevil his characters, often to the point of madness or self-destruction. In classic Greek literature, characters – Oedipus being the exemplar – marched inexorably to pre-determined fates. By contrast, the tragedies that Shakespeare's players experience are largely of their own design. The foibles of King Lear, Hamlet, Macbeth, and Othello would be far less interesting, if they were confined to each character's idiosyncrasies; what immortalizes Shakespeare's characters is that their motives are universal. After Shakespeare, the Western literary canon revolves around the theme of conflicted human motives more than any other single topic.

The Oedipus fan who adopted the mantle of such motivations in psychology was a towering genius and one of the worst scientists ever to achieve international prominence. Crews (2017) documented Freud's irresponsibility, perfidy, and arrogance, including the complete lack of empirical evidence for his assertions, the bullying of his patients to accept his interpretations (such as that a female patient's cough was due to her wanting to suck on her father's penis), the devastating effects of his misguided cocaine advocacy, his contempt for dissenting views (and attack on those who advanced them), his misrepresentation (to put it charitably) of his patients' treatment outcomes, and his sexism and misogyny.

Still, Crews (2017) fails to give credit where it is due, and, for all his outrages, the Freudian depiction of the unconscious, and of intrapsychic conflict, bequeathed an invaluable legacy in outlook, even if it was wrong, and sometimes absurd, in the particulars. Freud recognized that, in addition to being driven by the same biological necessities as other animals, humans are motivated by meta-concerns – by their apprehensions of what their actions, thoughts, and desires reveal about their personal identities (characteristics, values, abilities).

The Freudian notion of the dynamic unconscious can be viewed as the forerunner of what social-personality psychologists term motivated cognition and motivational bias. The behavioral movement that developed, in part, as a reaction against dynamic psychology, eschewed these presumed motivational influences on thoughts and behaviors. Radical behaviorists, led by Skinner, dispensed with motivational constructs altogether and any reference to mind or mental events. The contrast between psychoanalytic theory and radical behaviorism is an extreme example of the sometimes productive, sometimes obstructive, motivation-cognition debate that has been a mainstay of social-psychological theorizing for the past 50-plus years.

In this article, we recast Freud's notion of intrapsychic conflict as a struggle between a desired personal identity and internal (thoughts, images), external (social or performance feedback), or circumstantial (individual- or group-level) data that contradict it. We assume that discrepancies between desired identities and reality lead to deviation from "psychological homeostasis" (Alicke & Sedikides, 2019), defined as tolerance for negative affect. Ultimately, deviations from biological and psychological homeostasis are signaled by unpleasant feeling states, the primary difference being that the former involves deviations from physiological states, whereas the latter entails emotional states that fall below an acceptable level. Nevertheless, we view biological and psychological homeostasis as different manifestations of the same impetus to maintain the body's proper functioning (Damasio, 2018).

We aim to clarify the notion of motivation as it relates to personal identity, that is, to the self-views that people form about their abilities, behaviors, attitudes, emotions, and associations. Self-views are what people endeavor to promote or protect in the way they construe and explain past and present experiential data, project into the future, compare themselves to others, and render social judgments. In this context, motivated cognition or bias refers to memories, interpretations, projections, and comparisons that elevate these self-components above their objective standing, or protect them from slipping below a tolerable level.

Despite its central role in theorizing about the self, the motivation construct has been used loosely, without thoroughly analyzing what kind of motivation is involved, or the sense in which these motivational processes are biased. We begin by outlining the nature of the motivational conflict that maintaining desired self-views encompasses, and then elaborate on motivation as it applies to personal identity. We then discuss what it means to claim that individuals are motivationally biased to protect or enhance their self-views, with an emphasis on what such motivations achieve.

The nature of conflict

An enduring Freudian contribution to experimental psychology is the idea that people resolve intrapsychic conflict in ways that avoid or minimize unpleasant affective states

(anxiety, in particular). Freud (1961a, 1961b) focused almost exclusively on the conflict between biological urges and societal proscriptions, or between sexually omnivorous natures with a penchant for violence and the need to thrive in a culture that discourages gratifying these impulses. From the vantage of modern social-personality psychology, the Freudian conflict is but one of many that derive from threats to important self-views. Such threats originate in poor achievement, low status, unfavorable social feedback, relationship failure, ostracism, and unwanted thoughts, emotions, or motives (Alicke & Sedikides, 2009; vanDellen, Campbell, Hoyle, & Bradfield, 2011). Whatever threatens a desired self-view, whether processed consciously or unconsciously, and whether real or imagined, is fodder for intrapsychic conflict (Baumeister, Dale, & Sommer, 1998; Sedikides, 2012).

The intrapsychic conflict that threatening information evokes plays out against the necessity to assess accurately one's capacities for achieving favorable outcomes (Sedikides, 2018a, 2018b; Sedikides & Strube, 1997). To preserve or restore homeostasis, individuals must interpret internally- and externally-generated feedback in a way that maintains self-views at an acceptable level, while accommodating reality. Positive self-views that are too discrepant with reality have obvious liabilities, such as leading one to select incompatible situations (e.g., college majors, careers), alienate others, and persist instead of changing course.

Motivational explanations of behavior

Motivation has been a contentious construct. Freud staked his empire on it, Skinner banished it, personologists individualized it, cognitive psychologists constrained it (as goal pursuits), and social-personality psychologists were ambivalent about it (Alicke & Sedikides, 2011a).

One tack is to dispense with this troublesome construct and simply describe when and how people construct and modify their self-views. The problem with such an approach is accounting for behavioral variability. Skinnerians gave short shrift to variability and individual differences, even if some rats pressed levers with more panache than others. Given that rats and pigeons have few psychological needs to accompany their physiological ones, they exhibit trivial differences in their pressing and pecking under similar stimulus conditions.

The radical behaviorists' program to dispense with motivation failed, because explanations confined to stimulus inputs, deprivation states, and behavioral outputs do not account adequately for behavioral variability in humans. Whereas the consummatory behavior of rats is predicted with reasonable accuracy from deprivation, the human consummatory response depends, in addition to physiological needs, on countervailing desires such as to look good at a high-school reunion, improve one's health status, or dazzle a date with one's culinary refinement. Variability escalates with more complex biological motives such as sex: The same sight of a receptive mate incites one to multiple copulations, love poems, or obsessive thoughts, and another to indifference.

Variability increases when shifting to the realm of self-view regulation in the service of psychological homeostasis. All living creatures need food, water, and sex, regardless of whether they act on these needs (choosing celibacy, for example, eliminates the behavior, not the need). Conversely, not everyone, to the same degree, needs to view themselves as ambitious, politically active, athletic, or artistic. Furthermore, individuals

differ not only on the self-views in which they invest, but also on the intensity with which they protect their self-views.

Indeed, the motivation to maintain desired self-views can be as critical as the need to satisfy biological drives. The idea that people are motivated solely by hedonic needs or self-interest has been largely discredited (Güth & Tietz, 1990; Sanfey, Rilling, Aronson, Nystrom, & Cohen, 2003). The belief that one is living in accordance with one's values can be as important as, or even more important than, satisfying biologically-based needs. People risk their lives to defend their honor, their religious beliefs, and their political ideals (Bushman, Ridge, Das, Key, & Busath, 2007; Jost, Becker, Osborne, & Badaan, 2017; Nisbett, 1996). Also, they punish third-parties to defend these values, at cost to themselves (Jordan, Hoffman, Bloom, & Rand, 2016). These proclivities may originate in the need to maintain a favorable reputation: Group members who can be relied upon to promote and defend the group's values are supported. In humans, the importance of reputation has become internalized to include reputation to oneself. In short, self-views, especially as core values, are as strong as any motivating force.

Comparison with major motivational perspectives

In this section, we discuss the motivation to maintain favorable personal identities. Motivation in the context of personal identity construction and maintenance refers to resolving intrapsychic conflict and sustaining psychological homeostasis by enhancing or protecting self-views. Figure 1 summarizes this motivational sequence. A threat to one or more self-views produces a deviation from psychological homeostasis, which arouses intrapsychic conflict. Individuals are motivated to resolve this conflict and restore homeostasis.

Instigating and maintaining behavior

In traditional behavioral models, motivational states are instigated by physiological depletion, which produces a drive state that leads to a consummatory response (i.e., eating, drinking, copulating), thus preserving biological homeostasis. Most behavioral theories, reaching their height of complexity with Hull (1943), emphasized the reinforcing properties of drive reduction. Drive reduction models were based on experiments with rats, and so their generalizability was limited. Other species evince such needs as exploration, curiosity, stimulation, and manipulation (Cofer & Appley, 1964; McClelland, 1985). Even rats work to receive electrical stimulation in the septal area, indicating that drive *induction* is reinforcing (Olds & Milner, 1954). Also, the importance of consummatory responses in motivation was questioned by research demonstrating that sexually

Figure 1. Motivational sequence after identity threat.

inexperienced male rats would increase their running speed to obtain access to sexually receptive females, even if they were never allowed to ejaculate (Sheffield, Wulff, & Backer, 1951) and even if the females' vaginas had been sutured closed (Kagan, 1955).

Findings such as these suggest that biological homeostasis is not the terminus of all motivational processes. The general homeostatic assumption can be upheld, however, if the concept is broadened to include psychological or emotional well-being (Alicke & Sedikides, 2019; Damasio, 2018). In contrast to overt behavioral processes, which are the pillars of traditional behavioral theories, personal identity comprises beliefs about one's capacities, values, and circumstances. Psychological homeostasis is achieved by reducing intrapsychic conflict with interpretive or behavioral strategies.

From this perspective, drives are affective states that influence the maintenance and construction of self-views. This involves alleviating or preventing the negative affect that intrapsychic conflict arouses. However, self-enhancement, which entails elevating self-views above their objective standing, can also increase positive affect. This is often a preemptive strategy: When people receive negative feedback that is impossible to deny without stretching the bounds of credulity, scaling back from an elevated point can preserve a favorable standing (Alicke, LoSchiavo, Zerbst, & Zhang, 1997; Gregg, Sedikides, & Gebauer, 2011).

Although we have emphasized self-concepts and narratives as the arsenal that deflects identity threats (Alicke & Sedikides, 2019; Sedikides & Alicke, 2019), behavioral strategies are also prevalent. The most direct and effective strategies are to succeed at tasks and maintain satisfying social relationships, that is, to exert primary control (Rothbaum, Weisz, & Snyder, 1982). People, however, are not always confident about attaining their material and social goals, and so they resort to secondary control strategies such as self-handicapping (Jones & Berglas, 1978), procrastination (Tice & Baumeister, 1997), or downward social comparison (Hoorens, 1993).

Behavioral strategies, though, are often limited in their long-range effectiveness, especially when threats are persistent or unavoidable. For example, many if not most social comparisons are foisted upon people rather than selected, which makes downward comparisons infeasible, or upward comparisons unavoidable (Alicke, Zell, & Guenther, 2013). For this reason, cognitive strategies such as self-serving explanations, narratives, and life stories typically accompany or supplant behavioral ones. For example, people who confront unfavorable feedback can refer to the long arc of their lives, and reason that their achievements, even if modest, are remarkable given the obstacles they surmounted.

Desires, incentives, expectancies, and conflict

Although incentives and needs were included in some behavioral theories, they were defined with reference to physiological drives and behavior strength. The vigor an animal displayed in pursuing a goal was associated with the amount of deprivation it had experienced or with the incentive value of the goal object. This "push-pull" distinction referred to whether behavioral onset and persistence were determined by biological necessity or external inducement.

Conflict in this context refers either to response incongruence (i.e., different means to obtaining a goal) or to the tension among competing incentives. The latter was the point of departure for Lewin's (1935) field-theoretic perspective on approach and avoidance. From the vantage of personal identity, approach and avoidance refer to

intrapsychic conflict regarding the potential benefits and liabilities of different choice options as they impact self-views. Personal identity needs complicate this calculation. The desirability of a choice option for non-humans is a simple matter of deciding which alternative has greater hedonic or survival value (Carver & Scheier, 1990). A monkey that likes bananas better than broccoli will consistently opt for bananas. What complicates goal conflict in humans is the clash between immediate desires and personal values. Someone who desires fast-food hamburgers over vegetables may choose the latter to appease his coach or spouse, or to attain his health or appearance standards. These conflicts are resolved by considering the implications that each alternative has for one or more self-views, and by pitting their implications against each option's hedonic value. Eating the fast-food burger may have greater hedonic value, but it also has unfavorable identity implications for relationships, health, or appearance.

Expectancies about the probability of attaining the desired outcome, and of promoting positive self-views, are essential in resolving approach-avoidance conflicts. Expectancies of success or failure are based on calculations of whether individuals believe they possess sufficient physical and mental resources to overcome environmental obstacles (Atkinson, 1957). Again, personal identity implications, and the intrapsychic conflict they provoke, transform the nature of this decision conflict for humans. A cockroach that wants to crawl into a soup bowl might be deterred by the potential of being squashed, or a chimpanzee might be discouraged in his mating pursuits by the appearance of a dominant rival. Failure can be lethal, but neither the cockroach nor the chimpanzee grapples with their self-image. The chimpanzee will not consider himself a wimp if he demurs or a stud if he succeeds.

In any intrapsychic conflict aroused by goal-pursuits, at least one of the options threatens a desired self-belief. This aspect of intrapsychic conflict can be understood in terms of the distinction between first- and second-order desires (Frankfurt, 1982). A first-order desire represents an immediate need or urge, whereas a second-order desire refers to evaluations of that need. An addict's immediate longing for a drug represents a first-order desire, whereas her evaluation of this longing defines her second-order desire. A happy addict, one who is glad to take the drug and has no wish to change, experiences no discrepancy between her first- and second-order desires. An unhappy addict, one who wishes to defeat both her habit and image of herself as an addict, has a first-order desire for the drug and a second-order desire to defeat this motivation. Intrapsychic conflict grows in intensity to the extent that the first-order desire overrides the second order one, that is, with the degree to which the addict fails to overcome an urge that she disvalues.

Although we regard identity construction in the service of psychological homeostasis as adaptive, identity motivation is sometimes counterproductive, particularly when the desired identity entails risky or unhealthy behavior. Taking drugs, drinking alcohol, engaging in unprotected sex, and adopting extreme attitudes or unconventional life-styles in support of corresponding self-views are obviously risky. Nevertheless, these pursuits can buttress desired identities, if they avoid serious negative consequences. Some rock stars survive and flourish, as do religious, political, and academic extremists. Behavior that perplexes observers often reinforces idiosyncratic self-images.

Finally, many goal conflicts occur without arousing intrapsychic conflict. A person who cannot decide between a drinking bout with his friends and an outing with his family may experience a goal conflict, but not necessarily one that disrupts psychological homeostasis. Goal conflict provokes intrapsychic conflict only when real or

anticipated actions threaten a desired self-view. Intrapsychic conflict would be aroused in this example, if the drinking option reflected unfavorably on the individual's perception of his self-control, health status, or family commitment.

Self-related needs

A different conception of motivation refers to self-related needs. The ascendance of such needs in personality theories was a reaction against the drive-reduction theories of the era. Allport's (1937) assertion that people have psychological needs that are "functionally autonomous" of physiological strivings seems obvious now, but it was controversial at the time. Murray (1938) catalogued a list of psychological needs, and Maslow (1954) and Rogers (1961) developed personality theories that included "higher" human needs (e.g., self-fulfillment, transcendence). Sullivan (1947), Horney (1950), and Adler (1956) also wrote about self-related needs, but in a way that made their hypotheses difficult to operationalize, which discouraged experimental scrutiny. Later, social needs such as for achievement (McClelland, Atkinson, Clark, & Lowell, 1953) or affiliation (Bowlby, 1969), and cognitive ones such as curiosity (Day, 1982) or exploration (Berlyne, 1962), were posited, thus challenging, and eventually contributing to the rejection of, the drive reduction assumption.

The push toward studying self-related needs dovetailed with the emphasis on self-esteem by Murray (1938) and Allport (1955), which eventually opened the floodgates to investigations of self-related processes such as construing or misremembering events in a way that confirms desired identity images, presenting oneself favorably to others, self-handicapping, thinking about one's characteristics and attributes in an unrealistically favorable manner, and being overly-optimistic about one's future prospects (Hepper, Gramzow, & Sedikides, 2010; Hepper, Sedikides, & Cai, 2013). These needs have proliferated into a bewildering array of phenomena that contain "self" as a predicate (Leary & Tangney, 2003). What they share, however, is their association with creating or managing personal identity. Although not all self-related needs directly entail self-enhancement or self-protection motives (such as curiosity and exploration), virtually all of them are at least indirectly associated with managing positive identities. For example, affiliation is relevant to the self-views of being loved or liked, and curiosity and exploration are the basis of self-views such as adventurous and inquisitive.

In recent years, researchers have posited needs such as freedom from external control (Deci & Ryan, 1995) or existential angst (Pyszczynski, Greenberg, & Goldenberg, 2003), belongingness (Baumeister & Leary, 1995), meaning in life (Wong, 2012) and authenticity (Kernis & Goldman, 2006). These needs are neither incompatible nor mutually exclusive. Freedom from external control, for example, enables the pursuit of meaning and authenticity. Similarly, close social bonds may help to allay mortality anxiety. Although these needs pertain to somewhat different strivings, they all contribute to maintaining psychological homeostasis.

Our focus on the motivation to maintain positive self-views invites comparison with self-esteem theories. Global self-esteem can be conceived as an overall evaluation of one's characteristics, abilities, and circumstances, a positive feeling about self, or both (Sedikides & Gregg, 2003). These components, while overlapping, are conceptually distinct. People can have favorable evaluations of their abilities without necessarily feeling good about themselves, which would fail to establish homeostasis. Conversely, psychological homeostasis would be satisfied for those who had modest evaluations of

their abilities, but nevertheless maintained positive affect. Indeed, the key benefits of high self-esteem are affective (e.g., reported well-being; Kuster, Orth, & Meier, 2013).

The most frequently used measure of global self-esteem – the Rosenberg (1965) self-esteem scale – emphasizes perceived competence (Wojciszke, Baryla, Parzuchowski, Szymkow, & Abele, 2011). However, self-esteem can be staked in many self-concept domains such as sustaining religious or moral guidelines, meeting financial goals, having satisfying relationships, or being physically fit and healthy (Crocker & Wolfe, 2001; Gebauer, Wagner, Sedikides, & Neberich, 2013; Sedikides & Gregg, 2008). We prefer, therefore, to describe the motivation for psychological homeostasis in terms of its role in enhancing or protecting more circumscribed, ideographically-defined, self-beliefs (Alicke & Sedikides, 2019). People can experience threats to their well-being if they feel they are failing as parents, ski instructors, or ornithologists, or if they fall below their standards for making friends, keeping their apartments clean, or practicing their bassoons. In each case, they have recourse to preemptive narratives and propositions (e.g., I don't have friends because my abilities intimidate people) or reparative ones (e.g., she criticizes everyone) to preserve self-views at a desired level and maintain homeostasis.

Motivational bias

The concept of motivational bias never arose in behaviorism, presumably because rats and pigeons are unencumbered by discrepancies between their actual and desired selves. The concept was raised implicitly when debating whether attitude change in cognitive dissonance reflected motivation to reduce cognitive tension (Festinger, 1957), or could be explained with reference to the reinforcement contingencies under which behavior occurred (Bem, 1972). Explicit treatment of motivational bias did not come to the fore until disagreements about self-serving attributional biases arose, involving whether taking credit for positive events and displacing blame to others for negative ones was due to the motivation to support positive self-views, or to different expectancies and information (Sedikides & Alicke, 2012).

Since then, research and theories incorporating motivated construals or behaviors, and self-enhancement/self-protection particularly (Alicke & Sedikides, 2011b; Sedikides & Alicke, 2019), have multiplied and become staple components of social-personality psychology. Nevertheless, misunderstanding about the meaning of motivation and motivational bias as they pertain to personal identity still abounds. The contrast between motivational processes that involve intrapsychic conflict and an attempt to maintain desired self-views on the one hand, and that instrumental goal conflict on the other, is sometimes referred to as a "hot" versus "cold" motivation distinction, one that we argue is misleading. Sentient organisms do not emote at one moment and cognize at others – experiences are complex amalgams of central and peripheral bodily states and events. Further, the degree of emotional involvement does not distinguish conflict involving identity concerns from that involving incompatible goals: People are never emotionally inert, and instrumental goal conflicts can elicit potent emotional responses. Finally, almost all significant instrumental goal conflicts entail identity concerns. One's choice among professions, romantic partners, and activities disclose core aspects of their identity.

Rather than classifying motivations according to their temperatures, it is more useful to distinguish them according to type. Self-enhancement and self-protection represent particular types of motivation, involving strategies aimed at reducing intrapsychic conflict,

maintaining psychological homeostasis, and constructing identities that are as favorable as reality constraints permit. Such processes are "motivationally biased" in the sense that they involve a purposive attempt to sustain self-views at the highest credible level. This does not mean that memories, construals, judgments, and projections are erroneous or distorted, although they can be. The ways in which motivational bias occurs, and its effect on identity, can be sharpened by drawing the distinction between bias and error.

Bias and error

In contrast to error, which is a mistake defined with reference to a widely-accepted objective standard, bias is an inclination to reach a certain conclusion (Kruglanski & Ajzen, 1983). Whereas error refers to the outcome of a judgment, bias refers to perceptual or judgment processes that are guided by beliefs and expectancies that can be accurate or inaccurate. Most top-down perceptual processes promote accuracy and efficiency; only occasionally, such as in optical illusions, do they go astray. Similarly, biased categorical judgments, such as stereotypes, can be veridical, if the assumptions underlying them reflect reality. Conversely, stereotypical judgments based on erroneous assumptions are pernicious.

Against this background, we define *motivated* bias as an expectancy-guided process in which the expectancy, or hypothesis, is driven by a desire or need. A child might be predisposed to misremember or misrepresent the actions of her undependable biological parent to the detriment of her more caring adoptive one, because she desperately wants to believe that her biological parent loves her. As regards personal identity, a motivated bias entails purposive recall, construal, or projection that avoids or resolves intrapsychic conflict by skewing experiential data in a direction which preserves a desired identity component, and maintains or restores psychological homeostasis.

These purposive construals can be implemented proactively or contemporaneously. Proactive motivated construals involve manipulating events in the stream of consciousness such as memories, projections, and thoughts. An aspiring pianist who misremembers her past struggles to master her scales, who projects too optimistically into the future, or who spends inordinate time picturing herself bowing at Carnegie Hall, may miscalibrate her abilities.

Contemporaneous construals have been studied most frequently in the social-personality literature. These construals include excuses, denials, justifications, and self-deflecting attributions (e.g., blaming or denigrating others; Hepper et al., 2010; Sedikides, 2012). Each strategy involves aligning feedback with extant, biased self-beliefs. The aspiring pianist who believes she is more talented than reality warrants may ascribe coming last in a competition to incompetent judges.

Biased construals can depart from reality in various ways. The most obvious route is to contradict objective evidence. In the foregoing example, this would occur if the judges were competent, and their unfavorable opinions of the pianist's skills were correct. Another possibility is that the judges were incompetent (or biased), but the pianist was the least talented competitor, in which case the judges would have accidentally made the right decision. This highlights something that has been underemphasized in the literature: In their strivings for self-view positivity, people sometimes find veridical evidence of unfairness, incompetence, or bias on the part of others that serves to justify their self-views. Even if the misunderstood genius grossly overestimates her abilities, there may be instances in which others judge her unfairly. When direct support for

a biased and invalid self-view is difficult to obtain, indirect support by citing erroneous or unfair treatment can reinforce that self-view.

Motivated biases can promote accuracy. A student might be biased to view herself as the best actor in the school play, and she might be right. Even biases that output inaccurate judgments may be reasonable. Consider the example of an individual who slightly exaggerates her sociability, gets along well with others, and occasionally accepts less blame than she deserves for disagreements, thereby buttressing her sociability self-view. Rather than distort the meaning of task or social feedback, people may integrate this information with their extant self-views (Swann, Rentfrow, & Guinn, 2003). Coupled with the finding that self-views are typically elevated (Shi, Sedikides, Cai, Liu, & Yang, 2017; Thomaes, Brummelman, & Sedikides, 2017), and that these deviations are modest when compared to objective standards (Alicke & Govorun, 2005; Dufner, Gebauer, Sedikides, & Denissen, 2019), some motivated biases can be seen as a type of confirmation bias in which new data are aligned with an initial hypothesis (i.e., with an elevated self-view).

"Motivated bias" has a pejorative connotation. As we discussed elsewhere (Alicke & Sedikides, 2019), the motivation to maintain psychological homeostasis is no more biased than the motivation to regulate body temperature or the concentration of nutrients in the blood; that is, no more biased than biological homeostasis. Although motivational biases can be harmful and counterproductive, such as when they advance the self at the expense of others (e.g., scapegoating, victimization, prejudice) or when self-views are highly discrepant from reality, we assume that the majority of these biases are calibrated within the realm of believability to self and others, and that only severe threats to central aspects of identity provoke extreme reality distortions.

The emotion connection

Good cognitions and bad emotions

The reason why motivated judgment and behavior have been considered disreputable, and the phrase "motivational bias" is treated pejoratively, is the assumption that these processes are waylaid by irrational emotional influences. Cognitively-guided processes – System 1 – have been characterized as rational and adaptive, whereas emotional influences – System 2 – presumably promote bias and error (Kahneman, 2011). The elevation of cognition over feeling and emotion in social-personality psychology began in the 1960s with the emergence of attributional theories (Jones & Davis, 1965; Kelley, 1967). Deviations from attributional models were considered attributional errors or self-serving biases.

The exaltation of cognition intensified in the late 1970s as social-cognitive theories supplanted attributional models, and this emphasis prevailed until relatively recently (Zajonc, 1984). Ironically, although scholars readily granted the hegemony of emotion in all other animal species, they resisted extending it to humans. Acknowledging the primacy of emotion is the last frontier in integrating our species with the rest of the animal kingdom. Although experimental psychologists, particularly functionalists, embraced Darwinian assumptions about the continuity of species from the outset, they accepted the Cartesian view that humans are thinking beings first and foremost.

The traditional view is squarely at odds with perspectives in neuroscience (LeDoux, 2015), philosophy (Ben-Ze'ev, 2000), and anthropology (Lutz & White, 1986), in which emotions are

regarded as indispensable guides to adaptive functioning. To begin with the obvious, emotions prevent people from falling off cliffs, starting fights with individuals who might pummel them, or telling their employers what they really think of them. Emotions also guide moral behavior. The difference between a reasonably moral person and a psychopath lies not in their comprehension of moral rules, but in that psychopaths lack the emotions which guide moral behavior, such as empathy, guilt, or shame (Evans, 2003). One adaptive function of emotions is to facilitate trust (Frank, 1988). A peer or relationship partner who is wracked with guilt for violating commitments is more dependable than one who does so with equanimity. Finally, clinical observations of brain-damaged patients suggest that damage to brain centers involved in emotional responding creates more serious problems in rational decision-making than does damage to centers involved in memory and problem-solving (Damasio, 2005).

Emotion in constructing and maintaining identity

Several theoretical perspectives suggest that individuals are more willing to approach identity-risky situations when in positive than negative emotional states (Cacioppo, Gardner, & Berntson, 1999; Carver & Scheier, 1990; Isen, 2000; Zou, Lee, Wildschut, & Sedikides, 2019). For example, the broaden-and-build theory (Fredrickson, 2001) assumes that positive emotions expand openness to thoughts and actions. Such openness provides new avenues of support for favorable self-views, although it contains the risk of leading down unanticipated, hazardous pathways. The risk of downgrading self-views is mitigated, however, by positive mood buffering against the potentially deleterious consequences of self-related information (Raghunathan & Trope, 2002).

The hedonic contingency hypothesis (Wegener & Petty, 1994) offers a more nuanced perspective on how moods affect self-views. Positive mood, in contrast to previous perspectives, encourages conservatism, because people are reluctant to terminate it. Thus, they should scrutinize messages (or seek and analyze identity-relevant information), only if they believe that the information is likely to perpetuate their positive mood. In support, people in positive (vs. neutral) moods scrutinize messages more carefully when the messages are unthreatening. This suggests that people risk their emotional equilibrium strategically: When in positive emotional states, they are open to information that will help to construct favorable self-views, or elevate existing ones, but they demur when the information has a realistic chance of threatening a desired self-view.

Emotional states are informative for constructing and modifying self-views, especially when data are ambiguous. Such effects are suggested in studies where mood is assessed by interviewing people on sunny versus rainy days (manipulation checks confirm that they are happier on sunny days), and asking them about their life-satisfaction (Schwarz & Clore, 1983). That people are happier on sunny days, but only when their attention is directed away from the weather, indicates that they use unconscious affective cues to gauge their life satisfaction. Similar affective influences may work on self-views. Positive emotional cues should contribute more to favorable self-views, and help to defend better against threatening information, than should neutral or negative cues.

We derive more detailed predictions about the influence of emotion cues in constructing self-views from recent work on interoception. Interoception refers to perception of the internal body, primarily perceptions of the viscera (tissues and organs),

although some (Moseley, Gallace, & Spence, 2012) include all bodily sensations – including proprioception and the somatosensory system – in the definition. Models of interoceptive predictive coding (Seth, 2013) assume that interoceptive signals are analyzed against a prior probability distribution, and assessed for their statistical likelihood against this background. The type and intensity of an emotional experience is the interplay between a "gut" feeling and a top-down expectancy, where the gut feeling is based on the internal workings of the body, and the expectancy may be based on past knowledge, or on a recent exteroception (e.g., a visual image).

This current state of the interoception-emotion link partly resurrects the James (1884)-Lange (1885) theory of emotion, which was largely discredited following Cannon's (1927) critique. Cannon argued that the viscera were relatively insensitive, lacked afferent connections, and physiological reactions occurred too slowly to account for emotional experiences. Subsequent physiological research has largely overcome Cannon's reservations (Bernston, Gianaros, & Tsakiris, 2019), with the caveat that there is rarely a one-to-one correspondence between interoceptive signals and emotional experiences. Nevertheless, researchers have moved beyond establishing the priority of affect or cognition, to create models depicting emotions as the outcome of a feedback loop that includes top-down predictions, which are informed by exteroceptive and interoceptive sources.

Interoception and interoceptive predictions have been applied exclusively to biological homeostasis. In the following, we consider five possible extensions to personal identity and psychological homeostasis.

First, bodily cues are used to interpret the meaning of ambiguous feedback, thoughts, or actions. Signals based on cardiac, respiratory, or enteric changes, which typically accompany unfavorable emotions, may be used to infer that a comment a friend made was a criticism, and to enhance or depreciate the value of a performance. Indeed, irrelevant body changes may be misattributed to external events, thereby affecting their relevance for self-views. Given the body's continuous contribution to background phenomenology, which may be essential to perceived mood, it seems possible that many self-judgment effects attributed to mood (Forgas, 1995; Sedikides, 1995; Showers, Abramson, & Hogan, 1998) may be due largely to unconscious interoceptive influences.

A second set of hypotheses can be derived from interoceptive perspectives on "allostasis." Whereas biological homeostasis stipulates fixed set points for physiological regulation, allostasis assumes that set points are altered to fit environmental requirements, such as adjusting metabolic needs in impoverished or dangerous settings (Sterling & Eyer, 1988). Translated to psychological homeostasis, emotional set points might be adapted to specific contexts. When anticipating favorable outcomes, set points for psychological homeostasis may be set higher, such that more favorable outcomes are required to satisfy emotional needs. Consequently, the same compliment, performance outcome, or aesthetic pleasure may fail to deliver the usual emotional reward. Conversely, homeostatic set points in difficult or hostile environments may be set lower, making it easier to maintain emotional equanimity.

Third, body perceptions may guide memory recruitment and the interpretation of those memories. Research has established mood effects on memory (Bower, 1981; Sedikides, 1992; Singer & Salovey, 1988), and some of these effects may be directly linked to self-views. Mood may influence the ability to recruit information that supports enhanced self-views: As positive emotional states facilitate recruiting positive material in memory, they are

likely to buttress desired self-views more effectively than negative states. One reason why the emotion-memory-self-view connection has received little attention is that empirical research on self-enhancement/self-protection usually addresses how these processes are affected by an external manipulation. Researchers have rarely examined the spontaneous process by which people construct or alter self-views in the everyday stream of consciousness, including reflections, imaginations, and projections (Alicke & Sedikides, 2019). Two possibilities emerge: Extant emotional states influence the memories people spontaneously recruit, which then affect self-views, or, spontaneous memory recruitment influences emotional states, which then affect self-views.

A fourth set of hypotheses is based on the predictive assumption of interoceptive theories. Damasio's (1996) somatic marker hypothesis states that predictions about future bodily states are used in decision-making. Translated to psychological homeostasis, this hypothesis suggests that predictions about likely emotional consequences influence the situations people select, the relationships they enter, and their decisions about leaving those situations and relationships (Jackson, Gaertner, & Batson, 2016).

Finally, personal identity may work in the opposite direction to help disambiguate bodily signals. One important aspect of personal identity entails understanding one's typical emotional responses. Someone might reason that, since he is not the kind of person who typically gets nervous before public speaking engagements, the gastrointestinal distress he is experiencing is due to the breakfast he ate rather than to nervousness. Conversely, an individual who typically experiences high arousal before a competition may ascribe her lack of arousal to disinterest.

Summary and conclusions

Motivated bias is a popular phrase in the social-personality psychology lexicon, but neither the meaning of motivation, nor bias, have been clarified in the context where the expression is applied, namely, as it pertains to constructing and maintaining desired self-views. Furthermore, motivated bias is typically treated as a mistake, or a source of irrationality, in which emotions (System 2) gain the upper hand over deliberate processes (System 1).

We defined motivation and bias in the context of forging a favorable identity, and claimed that the pejorative connotation of motivated bias that is implied, or explicitly stated, in the self-enhancement/self-protection literature mischaracterizes the nature of what people strive for when they exaggerate their positive characteristics and downplay their faults. Although judgments originating in biased reasoning can lead to deleterious consequences, both in judging oneself and others, we argued that a system biased toward maintaining psychological homeostasis is as adaptive as one geared to maintaining biological homeostasis. The first promotes emotional well-being, the latter physiological health. A growing number of investigators treat homeostasis as a fundamental balancing principle unconfined to physiological well-being (Damasio, 2018). We view psychological and biological homeostasis as the two primary and complementary components of well-being.

Psychological homeostatic needs are so important that they can supersede biological ones. People who adopt instinct-denying lifestyles (e.g., celibacy, fasting) for ideological reasons do not necessary become sick; they may attain greater spiritual fulfillment by realizing their desired self-views. Throughout human history, millions have sacrificed their lives for personal, religious, and national causes, and these sacrifices often occur in

the pursuit of personal or group identity needs. Achieving and maintaining the identity one favors, even if it requires a "bias" in the way one construes and remembers events, and imagines their futures, is in the long run an adaptive strategy.

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