

## Is There a Universal Positivity Bias in Attributions? A Meta-Analytic Review of Individual, Developmental, and Cultural Differences in the Self-Serving Attributional Bias

Amy H. Mezulis, Lyn Y. Abramson, Janet S. Hyde, and Benjamin L. Hankin  
University of Wisconsin—Madison

Researchers have suggested the presence of a self-serving attributional bias, with people making more internal, stable, and global attributions for positive events than for negative events. This study examined the magnitude, ubiquity, and adaptiveness of this bias. The authors conducted a meta-analysis of 266 studies, yielding 503 independent effect sizes. The average  $d$  was 0.96, indicating a large bias. The bias was present in nearly all samples. There were significant age differences, with children and older adults displaying the largest biases. Asian samples displayed significantly smaller biases ( $d = 0.30$ ) than U.S. ( $d = 1.05$ ) or Western ( $d = 0.70$ ) samples. Psychopathology was associated with a significantly attenuated bias ( $d = 0.48$ ) compared with samples without psychopathology ( $d = 1.28$ ) and community samples ( $d = 1.08$ ). The bias was smallest for samples with depression (0.21), anxiety (0.46), and attention-deficit/hyperactivity disorder (0.55). Findings confirm that the self-serving attributional bias is pervasive in the general population but demonstrates significant variability across age, culture, and psychopathology.

People have a need to view themselves positively. This is easily the most common and consensually endorsed assumption in research on the self. (Heine, Lehman, Markus, & Kitayama, 1999, p. 766)

For decades, researchers from diverse perspectives have argued that there is a positivity bias in human cognition. According to this view, people seek a positive image of themselves and their environments with such vigor that reality is at times selectively interpreted and at other times patently ignored. Heider (1958) noted that cognition is influenced not only by the objective evidence but also by the subjective needs, desires, and preferences of the individual such that the individual's positive outlook is maintained. Such positivity seeking may serve an adaptive function. Allport (1937) labeled this positivity seeking "nature's eldest law" (p. 48)—a way for the individual to protect the fragile ego from the blows of reality. Tiger (1979) suggested that such optimism has become pervasive in human cognition through natural selection processes. Taylor and Brown (1988) similarly argued that the tendency to engage in "positive illusions" about the self is a widespread feature of human cognition that allows for the maintenance of mental health. Clinically oriented researchers have long proposed that the breakdown or absence of positive cognitive biases would be associated with a breakdown in normal functioning and may be associated with psychopathology (e.g., Abramson & Alloy, 1981; Alloy, Albright, Abramson, & Dykman, 1990).

The self-serving attributional bias is one positivity bias in cognition. Heider (1976) observed that "one is inclined to attribute to

oneself good things, but one suffers when one has to attribute to oneself something that is not so good" (p. 16). The result is the self-serving attributional bias: People are more likely to attribute positive events to themselves but dismiss negative events as attributable to other causes. Several comprehensive reviews have concluded that the self-serving attributional bias is a robust and amply demonstrated phenomenon in human cognition (Anderson, Krull, & Weiner, 1996; Bradley, 1978; W. K. Campbell & Sedikides, 1999; Greenberg, Pyszczynski, & Solomon, 1982; Heider, 1958; D. T. Miller, 1976; D. T. Miller & Ross, 1975; Sedikides & Strube, 1995; Zuckerman, 1979). Moreover, a growing body of evidence has suggested that the self-serving attributional bias is an adaptive feature of human cognition that is consistently associated with mental and physical health. The self-serving attributional bias has been associated with greater self-reported trait happiness (Kuiper, 1978; Rizley, 1978), less depression (Abramson & Alloy, 1981), more positive mood states (McFarland & Ross, 1982), better problem solving (Isen & Means, 1983), better immune functioning (Taylor et al., 2000), and lower mortality and morbidity longitudinally (C. Peterson & Seligman, 1987). By contrast, an attenuated or absent self-serving attributional bias has been associated with depression (Sweeney, Anderson, & Bailey, 1986); worse physical health (Lee & Seligman, 1997; C. Peterson, Seligman, & Vaillant, 1988); and worse academic, work, and athletic performance (C. Peterson & Barrett, 1987; Seligman, Nolen-Hoeksema, Thornton, & Thornton, 1990).

In recent years, however, a heated debate has arisen around the universality of the self-serving attributional bias. Is the self-serving attributional bias truly widespread in human cognition? Is the absence of such a bias always associated with poor adaptation? Heine et al. (1999) suggested that the use of cognitive strategies such as the self-serving attributional bias to fuel a positive self-concept is an assumption by Western researchers that is rarely challenged empirically. They noted that "researchers have a solid

---

Amy H. Mezulis, Lyn Y. Abramson, Janet S. Hyde, and Benjamin L. Hankin, Department of Psychology, University of Wisconsin—Madison.  
We thank Meghan Fearn for her help in preparing this article.

Correspondence concerning this article should be addressed to Amy H. Mezulis, Department of Psychology, University of Wisconsin, 1202 West Johnson Street, Madison, WI 53706. E-mail: ahmezulis@wisc.edu

understanding of self-evaluation for the average North American research participant . . . [but] considerably less research has been conducted outside [of this population]" (Heine et al., p. 766). The bulk of the research supporting the ubiquity of positive illusions in general and the self-serving attributional bias in particular has been conducted with normally functioning college students and adults in predominantly White, Western cultures such as the United States.

The existing narrative and meta-analytic reviews address only small segments of the relevant literature on the self-serving attributional bias and do not represent the wealth of data from the past 40 years on attributional patterns across diverse populations. The classic narrative reviews (Bradley, 1978; Greenberg et al., 1982; D. T. Miller, 1976; D. T. Miller & Ross, 1975; Zuckerman, 1979) that are most often cited as evidence of the self-serving attributional bias are too out of date for a current examination of this issue, and they reviewed only experimental studies in which college students were the primary participants. More recently, three meta-analyses have been conducted on small portions of the self-serving attributional bias literature. Two were restricted to examining the magnitude of the self-serving bias in the specific domains of interpersonal influence (Arkin, Cooper, & Kolditz, 1980) and naturalistic sports events (Mullen & Riordan, 1988). Both had very small sample sizes. More recently, W. K. Campbell and Sedikides (1999) conducted a meta-analysis of 70 studies in which the self-serving bias was examined. However, they selected only experimental studies and excluded any study including children, individuals from non-Western cultures, or individuals with psychopathology. W. K. Campbell and Sedikides also included only studies identified by using the search term *self-serving bias*, thus failing to include a range of studies in which attributional patterns were measured to address research questions not directly related to the self-serving bias. Although these three meta-analyses reported positive effect sizes for the self-serving attributional bias in the moderate to large range (0.38 to 0.67), the actual magnitude and ubiquity of the self-serving attributional bias remain unknown because of the limited scope of reviews to date.

Another important question is whether the self-serving attributional bias is in fact ubiquitous across populations that differ in age, culture, gender, psychopathology, and other factors. Few reviews have examined individual-difference factors that may affect the presence and/or magnitude of the self-serving attributional bias. Moderator analyses of the self-serving bias have been restricted to methodological factors (e.g., question wording style, Whitley & Frieze, 1986; self-threat manipulations, W. K. Campbell & Sedikides, 1999) and three small early reviews of gender differences in attributions (Frieze, Whitley, Hanusa, & McHugh, 1982; Sohn, 1982; Zuckerman, 1979). No review to date has systematically reviewed other individual-difference moderators of the self-serving attributional bias, such as age, culture, and psychopathology. However, several empirical studies and literature reviews have compared the self-serving attributional bias in Western cultures with that observed in Eastern cultures (Anderson, 1999; Crittenden & Bae, 1994; Heine et al., 1999) and concluded that the self-serving bias is a uniquely Western phenomenon that is absent or strongly attenuated in non-Western cultures. It has been similarly argued that the bias may be absent or even reversed in some psychopathological samples, such as individuals with depression (the so-called *negativity bias*; Beck, 1967, 1987; Sweeney et al., 1986). By contrast, developmental researchers have sug-

gested that children may display an inordinately large positivity bias that declines with age (Stipek & MacIver, 1989). Despite these challenges to the assumed ubiquity of the self-serving attributional bias, no comprehensive review has been conducted of this literature to fully address questions regarding the magnitude and ubiquity of this bias in human cognition.

Finally, if in fact the self-serving attributional bias serves an adaptive function in contributing to the maintenance of mental health, does it necessarily follow that the absence or attenuation of this bias is associated with poor mental health? Although several studies have examined the relationship between attributional patterns and depression (see Sweeney et al., 1986, for a review), little is known about the presence or magnitude of the self-serving attributional bias in other psychopathological groups.

### The Current Study

In the current study, we use the technique of meta-analysis to address the following core questions about the magnitude, ubiquity, and adaptiveness of the self-serving attributional bias:

1. What is the magnitude of the self-serving attributional bias in the general population?
2. Does the self-serving attributional bias exist among all groups, or is there such a phenomenon as a negativity bias in some populations?
3. Does the magnitude of the self-serving attributional bias vary across the life span? and Developmentally, at what ages is the bias most and least pronounced?
4. Does the magnitude of the self-serving attributional bias vary according to gender?
5. Does the magnitude of the self-serving attributional bias vary with psychopathology?
6. Does the magnitude of the self-serving attributional bias vary across culture?

### Defining the Self-Serving Attributional Bias

The *self-serving attributional bias* is defined as the tendency of individuals to make attributions for positive events that are more internal, stable, and global than their attributions for negative events. One important limitation of the existing reviews of the self-serving bias in psychologically healthy populations is that they have defined this bias as a pattern of making more internal attributions for success than for failure (Arkin et al., 1980; Bradley, 1978; W. K. Campbell & Sedikides, 1999; D. T. Miller & Ross, 1975; Mullen & Riordan, 1988; Zuckerman, 1979). "Internal" attributions are typically defined as attributions to either ability or effort. However, Abramson, Metalsky, and Alloy (1989) suggested that the internality of attributions alone gives little information as to whether they are indeed self-serving. Abramson and colleagues have emphasized three dimensions of attributions (internality, stability, and globality) as critical for whether attributions are self-serving. Specifically, they hypothesized that a style of attributing negative events to internal, stable, and global causes

