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The Self in Social Judgment

Edited by

Mark D. Alicke
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5

The Better-Than-Average Effect

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Most people are average but few people believe it. The tendency to evaluate oneself more favorably than an average peer is one of social psychology's chestnuts—a finding that will never let you down when running a class demonstration. This better-than-average effect has been obtained in numerous studies, with diverse populations, on multiple dimensions, and with various measurements techniques.

The better-than-average effect is a particular type of social comparison, one in which people compare their characteristics or behaviors against a norm or standard, which is usually the average standing of their peers on the characteristic. In this regard, the better-than-average effect falls outside the mainstream of traditional social comparison theory. Following Festinger (1954), social comparison theorists have emphasized the precursors and consequences of comparisons between people. Arguably, however, comparisons with normative standards are at least as prevalent as interpersonal comparisons. The self versus average peer judgments studied in better-than-average effect research are akin to social comparisons such as assessing whether one is meeting a group's moral standards or performance expectations.

The better-than-average effect is considered to be one of the most robust of all self-enhancement phenomena (Taylor & Brown, 1988; Sedikides & Gregg, 2003). The better-than-average effect shares this distinction with the optimistic bias—the tendency to overestimate one's chances of good fortune and to underestimate one's risk for misfortune. Whereas the better-than-average effect pertains to self versus average peer comparisons on behavior and trait dimensions, the optimistic bias involves comparisons about life events such as winning the lottery or getting divorced. Although we concentrate on the better-than-average effect in this chapter, many of the issues underlying better-than-average judgments apply as well to relative risk assessments. Connections and distinctions between

these two research areas will be drawn throughout this chapter.

Various explanations have been proposed for the better-than-average effect (see Gilovich, Epley, & Hanko, this volume). These explanations encompass two broad issues. The first issue concerns the role of behavioral and interpersonal comparisons in the better-than-average effect. One prominent explanation for the effect is that when asked to compare themselves with an average peer, people select comparison targets who fare especially poorly on the judgment dimension (Perloff & Fetzer, 1986). Another possibility is that people think selectively about behaviors on which they fare better than others (Weinstein, 1980). In contrast to these views, Alicke et al. (2001) have argued that behavioral comparisons are unnecessary to account for the effect, and that people routinely employ a "better-than-average" heuristic which entails a compromise between existing self-knowledge and ideal trait conceptions.

A second main issue underlying better-than-average explanations is whether nonmotivational mechanisms can account for the effect. The four most prominent nonmotivational explanations center on whether people selectively recruit information or comparison targets that ensure their own superiority, whether the judgment task encourages people to focus on themselves rather than on the average peer (focalism), whether people's own behaviors or characteristics are considered more thoroughly and weighted more heavily (egocentrism), and whether the effect is due to differences between

comparing a single entity (the self) with an aggregate (an average peer).

To anticipate our conclusion, we do not believe that nonmotivational mechanisms account sufficiently for the better-than-average effect, and we also believe that various lines of evidence indicate that self-enhancement motives contribute to the effect. Furthermore, many of the nonmotivational explanations that have been discussed are as readily interpretable in motivational terms. The fact that people concentrate unduly on their own characteristics in making comparisons (egocentrism), for example, could result from the tendency to believe that their own characteristics are better or more important than others'. At the same time, we hardly wish to argue that nonmotivational mechanisms are unimportant in explaining the better-than-average effect. Any satisfactory explanation of self-related effects must encompass both the why and the how of behavior. To argue that the better-than-average effect occurs because people wish to view themselves positively tells us nothing about how the effect occurs. Therefore, after a brief historical survey of the emergence of better-than-average effect research, and a consideration of factors that moderate the effect, we discuss the mechanisms that contribute to the better-than-average effect. After this, we review evidence that points to the role of self-enhancement motives in this research area and discuss avenues for future research.

EARLY STUDIES

Data collected in conjunction with the 1976 College Board Exams provide one of the earliest, most striking, and most ftequently-cited demonstrations of the better-than-average effect. Of the approximately one million students who took the SAT that year, 70% placed themselves above the median in leadership ability, 60% above the median in athletic ability, and 85% rated themselves above the median in their ability to get along well with others. Amazingly, 25% of the students rated themselves in the 1st percentile on this latter characteristic. These data are noteworthy because in contrast to many subsequent better-than-average and optimistic bias studies, students were not asked to compare themselves to an average peer but simply to indicate where they stood in relation to the median. Thus, these results cannot be ascribed to negative connotations associated with the word "average."

Around this time, Cross (1977) distributed a questionnaire to instructors at three branches of the University of Nebraska. This questionnaire was concerned primarily with undergraduate teaching issues, but included a question that asked professors to rate their teaching abilities. Results showed that 94% of the faculty considered themselves above average in teaching ability and 68% placed their teaching abilities in the top 25%. These data demonstrated at the outset that the better-than-average effect was not limited to college students.

Another frequently-cited study by Svenson (1981) showed that 88% of American college students, and 77% of Swedish college students, considered themselves to be above the 50th percentile on driving safety. Svenson's research was motivated by an earlier study in which Preston and Harris (1965) compared 50 drivers who had been hospitalized following car accidents (34 of whom had caused the accidents, according to police records) with 50 matched drivers without accident histories. Preston and Harris's results showed not only that both groups considered themselves to be above average in driving skills, but that the accident group's evaluation of their driving abilities did not differ from those who were uninvolved in accidents.

The first experimental research on the better-than-average effect was conducted in France where Codol (1975) studied what he called the "superior conformity of the self." Codol placed his research in the context of identifying with desirable norms. The hypothesis guiding these studies was that people believed they adhered to desirable norms more than others. Codol employed various self versus other measurements in his twenty studies, and so this research did not establish a basic paradigm for subsequent investigations. Furthermore, the context of norm identification obscured somewhat the general, social-comparative implications of the better-than-average effect. Nevertheless, Codol presciently raised issues that still resound in the better-than-average effect literature. His findings suggest, for example, that the better-than-average effect is larger when people compare

themselves to others in general than to specific group members. Codol also conjectured that the tendency to view oneself as superior to others represents a desire to self-enhance rather than to denigrate others.

MODERATING FACTORS

Self researchers recognize that people are not indiscriminately self-serving (e.g., Baumeister, 1998; Schlenker, 1980; Sedikides & Gregg, 2003). Self-serving tendencies such as the better-than-average effect are pervasive but not inevitable. As previously noted, even the earliest better-than-average effect studies assessed moderating factors that alter the effect's strength. Four main classes of moderating factors have been identified: the scales on which the effect is measured, the nature of the judgment dimension, the nature of the comparison target, and characteristics of the judge.

Direct and Indirect Measurements

Research on the optimistic bias and better-than-average effect employs two basic methodologies. With the *direct* method, self is compared to an average peer on a single scale that uses "average" as the midpoint. At the low end, direct scales are usually anchored with wording such as "considerably below average" and on the high end at "considerably above average." The estimate of the better-than-average effect is straightforward: The higher the number circled, the greater the magnitude of the effect. With indirect ratings, participants rate the self and average peer on separate scales. The better-than-average

effect is calculated by subtracting the average rating from the self rating so that higher scores indicate greater bias. Studies suggest that people are more self-serving when they use the direct rather than the indirect scale (Otten & van der Pligt, 1996). Direct scales provide a stronger comparative frame and may, therefore, elicit more pronounced tendencies to contrast the self upward from the average peer or to contrast the average peer downward from the self.

The direct method of assessing the better-than-average effect is used more often, although it is less informative. With the direct method, it is impossible to estimate whether the better-than-average effect results from people underestimating the average peer's standing, overestimating their own standing, or both. The one exception to this occurs when a person's standing on a dimension is objectively known and can be used as a reference point (Epley & Dunning, 2000). The indirect method, by contrast, is informative of the direction of contrast. Because the indirect method has been less frequently used, there is no solid basis yet for concluding whether the better-than-average effect represents self-inflation, average peer deflation, or some combination of both.

The Nature of the judgment Dimension

People who claim positive characteristics that are easily refuted risk being ridiculed. Furthermore, the need to maintain coherent and believable self-images (Swann, Rentfrow, & Guinn, 2003) is threatened when people cling tenaciously to dubious abilities and characteristics.

Self-serving tendencies, therefore, operate within reality bounds. As a general rule, we assume that people are most self-serving when they have the latitude to interpret events in a self-serving manner (Sedikides & Strube, 1997). Self-enhancement is accomplished with the least obvious distortion when the judgment dimension is subjective or abstract as opposed to objective or concrete. Self-enhancement is also facilitated when people believe they have the ability to alter their standing on the dimension. Each of these factors is discussed separately below.

Criteria for Assessing Traits

The criteria for assessing intellectual and physical abilities are generally more objective than those for evaluating social or moral ones (Reeder & Brewer, 1979; Rothbart &Park, 1986). The view that people are more self-serving when making subjective or ambiguous judgments than objective ones leads to the prediction that the better-than-average effect will be larger on ability than on social or moral judgment dimensions.

This expectation has been confirmed by Allison, Messick and Goethals (1989) who found that the tendency for people to believe that they performed more moral behaviors than their peers was greater than their tendency to believe they performed more intellectual behaviors, although the latter was still significant. Allison et al. termed this the "Muhammed Ali effect."

The ubiquitous Muhammed Ali also provides a fitting introduction to Dunning, Meyerowitz, and Holzberg's

(1989) demonstration that ambiguity moderates the better-than-average effect. In an interview with Muhammed Ali after winning an early fight, sportscaster Howard Cosell suggested that Ali was mighty "truculent" that evening, to which Ali replied: "I don't know what truculent is, but if it's good, I'm it." Dunning et al. captured something like this reasoning in a more formal and less truculent manner. Their first two studies showed that the better-than-average effect was greater on dimensions that had been preclas-sified as ambiguous versus unambiguous. In the third study, trait ambiguity was manipulated by presenting some participants with specific criteria for assessing a trait, whereas others were free to define the traits for themselves. Results generally showed that the better-than-average effect was larger when participants provided their own trait definitions, although this effect was more consistent for positive than for negative trait dimensions.

Controllability

In addition to having the latitude to interpret a trait's meaning, self-enhancement is facilitated when people can construe their standing on a trait in a self-serving manner. Positive characteristics that people believe they control have greater self-serving value than characteristics they believe are less alterable, whereas negative uncontrollable characteristics are less deflating than controllable ones.

The first large-scale, systematic study of the better-than-average effect assessed the moderating influence of a trait characteristics perceived

controllability. Participants in this study examined self versus average ratings on separate scales for 171 trait dimensions (Alicke, 1985). These traits were prerated to represent four levels of desirability (high, moderately-high, moderately low, and low) and two levels of controllability (high and low). The larger set of desirability than controllability categories reflects the greater range in desirability preratings.

Although we assumed that people would evaluate themselves more favorably than they would an average peer, we expected this tendency to be moderated by controllability. The primary prediction was that participants would believe themselves to be characterized more by positive controllable than positive uncontrollable traits in relation to the average college student, and more by negative uncontrollable than negative controllable traits. These predictions can be summarized in the phrase: "I make me good, fate makes me bad."

As we anticipated, the tendency to evaluate oneself more favorably than the average college student on positive traits, and less unfavorably on negative traits, was pervasive. The predicted effects of controllability were also obtained such that participants rated themselves more favorably in relation to the average college student on positive controllable traits and more unfavorably on negative uncontrollable traits.

The Nature of the Comparison Target

A fundamental question surrounding berter-than-average effect judgments concerns the nature of the comparison target. Whereas traditional social comparison studies include comparisons between individuals, better-than-average effect research entails comparisons between oneself and an hypothetical or statistical entity, namely, an average peer. Extensive attributional and decision-making research shows that people tend to deemphasize or misuse statistical information (Nisbett & Ross, 1980). The better-than-average effect, therefore, might disappear when comparisons are effected between real people rather than between a person and a statistic.

Alicke et al. (1995) conducted a series of studies to see if the better-than-average effect would be eliminared when people compared themselves to a real person rather than an average peer. In their first and simplest study, half the participants were brought to a large room and asked to look at the person sitting next to them. These participants then changed their seats and made 40 trait comparisons (20 positive, 20 negative) between themselves and the person they had sat next to. A second group of participants compared themselves on these same dimensions to the average college student. Results showed that the better-than-average effect was pervasive in both groups, but was significantly reduced in comparisons with real people.

This first study suggested that people adjust their evaluations when comparing with real versus hypothetical targets, but still view themselves more

favorably in person-to-person comparisons. Six more studies were conducted to investigate in greater detail the differences between real and hypothetical comparison targets. These studies used a common paradigm in which an interviewer asked a series of predetermined questions of an interviewee (actually a confederate) who always gave the same stock answers. In the first study using this paradigm, a live observer watched the interaction in the same room, another group watched the interaction on videotape, a third read a written transcript of the interview, and a fourth made self versus average college student judgments. Ratings in the first study were made on the kinds of life events studied in optimistic bias research. Consistent with the first study's findings, the better-than-average effect (or optimistic bias in this case) was greater when participants compared themselves to the average college student than in any of the other conditions. The more novel finding of this study was that the better-than-average effect was greater in the transcript and video conditions than in the live observer or interviewer conditions. No differences were obtained between the live observer and interviewer conditions, suggesting that actual interaction with the target does not influence comparisons beyond experiencing the target's live presence.

This study, therefore, established two differences between real and hypothetical comparison targets. The first difference is individuation. Any specific target ostensibly reduces the better-than-average effect in relation to
comparisons with an hypothetical entity such as an average peer. The second difference is live contact. The

better-than-average effect is reduced when people are in the same room with the comparison target regardless of whether an actual interaction takes place.

Subsequent studies sought further refinements. Participants in the individuation condition of the previous study received some information from the target in the form of the target's answers to the interview questions. To create even more basic individuation conditions, participants in one group saw only a still image of the target, and in another, saw only the back of the target's head (to eliminate facial cues). We also created conditions in which participants thought they were watching a contemporaneous interview on a TV monitor, and conditions in which participants watched the interview from behind a one-way mirror with the belief that the interviewee could, or could not, see them. In the mirror conditions, participants stood almost the exact distance from the interviewee as in the live observer condition, and also saw the interviewee from the same angle. The results were clear: Every condition in which participants compared themselves to the interviewee produced a decreased better-than-average effect in relation to comparisons with an average college student, and an increased better-than-average effect in relation to live observer conditions.

These findings suggest that individuation per se reduces the better than average effect. The results of these studies also show that the features that differentiate live- from nonlive contact are quite subtle. Live contact did not increase feelings of similarity to the interviewee, nor did it require any type of interaction. Simply being in the

same room with the target was sufficient to reduce the better-than-average effect, and this same reduction did not occur when participants believed they were watching the interaction live on a monitor, or even when they watched the interview through a mirror in the next room and knew that the interviewee could see them.

Another issue these studies investigated was whether participants perceived the "average" student pejoratively. One possible explanation for better-than-average effect findings is that people do not want to be considered average because of its negative connotation. To assess how participants viewed the average student, we had them create distributions for 16 different trait dimensions. For example, for the trait dimension dependable-undependable, participants listed the percentage of people they thought fell into nine categories between extremely dependable and extremely undependable, with the understanding that their percentages should total to 100%. The mean of each trait dimension was calculated, and this value was compared to where on the dimension participants placed themselves, the average college student, or a real person whom they had sat next to. As in the previous studies, participants evaluated themselves and the real person more favorably than the average college student, while consistently placing themselves above the real person. More germane for the purposes of this study, participants consistently placed the average college student above the distribution mean. In these data, therefore, the average college student was not viewed pejoratively, at least not in relation to the distribution mean. These findings suggest that even the average college student is

perceived as a more individuated entity than the mean of a trait distribution.

Characteristics of the Judge

Relatively few better-than-average effect studies have examined individual difference factors. The one factor that has been routinely analyzed-gender-rarely produces significant effects. In this section, we briefly review the two characteristics that have received some attention, namely self-esteem and depression.

Self-Esteem

Not everyone believes they exceed the average by the same degree. Self-esteem is perhaps the first individual difference factor that comes to mind in considering variations in the better-than-average effect. In fact, self-esteem did come to mind very early in research on this topic. Brown (1986) found that the tendency to evaluate oneself more favorably than others was greater for high self-esteem than for low self-esteem participants, although this effect was obtained for positive and not for negative traits.

More recently, Suls, Lemos, and Stewart (2002, Study 1) assessed the self versus average peer comparisons of high and low self-esteem participants on traits varying in ambiguity. They found that whereas both high and low self-esteem individuals exhibited a greater better-than-average effect for ambiguous versus unambiguous traits on positive trait dimensions, low self-esteem individuals did not show this ambiguity

effect on negative trait dimensions. Thus, only high self-esteem individuals took advantage of the interpretational latitude afforded by negative, ambiguous traits.

Depression

Tabachnik, Alloy, and Crocker (1983) compared the self versus average peer judgments made by students who scored relatively high or low on the Beck Depression Inventory. Their main hypothesis was that those who scored higher would view themselves as more similar to the average college student on depression-relevant items but not on irrelevant items. As it turned out, depressive participants viewed themselves as more similar to average on both depression-relevant and depression-irrelevant items. Because the depression-relevant items were all negative, and the depression-irrelevant items were predominantly positive, these findings suggest that depressives exhibit a diminished better-than-average effect across the board. In other words, depressives have a reduced tendency to evaluate themselves less negatively on negative characteristics relative to the average student as well as a reduced tendency to evaluate themselves more positively on positive characteristics.

EXPLAINING THE BETTER-THAN-AVERAGE EFFECT

Five primary mechanisms have been proposed to explain how the better-than-average effect operates. One

prevalent idea is that people selectively recruit downward targets who make them look favorable by comparison, or relatedly, that they selectively recruit behavioral evidence that favors the self. A second prominent explanation is that people focus egocentrically on their own positive attributes and that the heightened availability of their own behaviors and propensities produces the better-than-average effect. Third, focusing explanations argue that the position of the self as the subject of judgment and the average person as the target produces the better-than-average effect. By this reasoning, reversing the position of subject and target should eradicate the effect. Fourth, the self versus aggregate position argues that individual entities, such as the self, are evaluated more favorably than group or aggregate estimates, such as an average peer. Finally, the better-than-average effect could be a heuristic that is applied automatically in social judgments and then modified for specific comparison targets or dimensions. Each of these explanations is discussed in turn below.

Selective Recruitment

Most explanations of the optimistic bias, and some of the better-than-average effect, involve the way people think about their characteristics in relation to others. In his early optimistic bias research, Weinstein (1980, 1984; Weinstein & Lachendro, 1982) proposed the most prevalent variant of this explanation, namely, that when people compare their characteristics to others, they think selectively about their own strengths or about others' weaknesses. Weinstein first tested the selective recruitment hypothesis in a study (1980, Study 2) in

which participants listed behaviors that increased or decreased their chances of experiencing each of a series of life events. Some participants were then given the opportunity to read others' lists. Results showed a reduced optimistic bias in participants who read others' lists versus those who did not have access to this information. Importantly, access to other people's responses reduced, but did not eliminate, the optimistic bias. Weinstein and his colleagues showed similar reductions in the optimistic bias in studies that provided participants with specific information about others' risks for misfortune (Weinstein, 1984; Weinstein & Lachendro, 1982).

Perfloff and Fetzer (1986) considered another aspect of the selective recruitment hypothesis, namely, that when asked to compare themselves with an average peer, people select targets who compare unfavorably on the judgment dimension. People may think, for example, of an especially dishonest person, which casts their own honest behaviors in an especially favorable light. To test this downward comparison idea, Perloff and Fetzer had participants compare their vulnerabilities to misfortune with those of their closest friend, a close friend, and the average college student. Perloff and Fetzer assumed that identifying a specific, well-known comparison target (i.e., their closest friend) would prevent participants from selecting a target who was worse off than themselves on the comparison dimension or from recruiting specific behaviors or characteristics on which they fare better. Consistent with this assumption, they found that what they called "the illusion of invulnerability" was reduced when people compared themselves to their closest friend,

relative to when they compared with a close friend or with an average college student.

As Perloff and Fetzer noted, however, there are competing explanations for these findings. The explanation they favored was that people possess more information about their closest friends, which enables them to conclude that these friends are no more susceptible to misfortune than themselves. Another plausible explanation, however, is that people like their closest friend more than a close friend or an average peer and evaluate their closest friend more favorably on this basis. These studies, therefore, provide less clear evidence about the moderating role of behavioral information than Weinstein and his colleagues' research (1980 1984; Weinstein & Lachendro, 1982). What Perloff and Fetzer's results do suggest is that the better-than-average effect is reduced when positive self-evaluations are extended to others, such as close friends.

Egocentrism

Egocentrism is the probably the most prevalent nonmotivational explanation for better-than-average and optimistic bias effects. Egocentrism as applied to the better-than-average effect is the tendency to place undue weight on one's own characteristics, beliefs and experiences in making self versus average comparisons. In contrast to the selective recruitment hypothesis, egocentrism does not necessarily entail a self-serving review of behavioral evidence. In judging their relative honesty, for example, people may consider the same

honest behaviors for themselves and the target but still place greater weight on their own honest behavior. Furthermore, selective recruitment can entail thinking about the other's negative characteristics without focusing unduly on one's own.

One source of support for the egocentrism view comes from studies showing that self versus average peer comparisons are predicted better by absolute self ratings (that is, self ratings alone, without ratings of the average) than by absolute peer ratings (that is, peer ratings alone, without ratings of the self). Klar and Giladi (1999), for example, had participants make absolute ratings of their own contentment, absolute ratings of their peers' contentment, and also comparative ratings of their own contentment relative to their peers. The main finding in their two studies was that absolute self-ratings predicted the comparative contentment ratings better than did absolute peer ratings. In fact, the relationship between absolute peer ratings and the comparative ratings were low and nonsignificant in both studies. Although these studies examined only one trait dimension, other studies have obtained analogous results with different judgment tasks (e.g., Eiser, Pahl, & Prins, 2001; Chambers, Windshitl, & Suls, 2003).

One of the most compelling demonstrations of the egocentrism position is Kruger's (1999) finding that people consider themselves *worse* than average on difficult tasks. Kruger reasoned that if concentrating egocentrically on their positive attributes leads people to think that they are better than average, then concentrating on their negative attributes should lead

them to believe that they are worse than average. This prediction can also be viewed from an anchoring and adjustment perspective: In the case of tasks for which people believe that they have high ability, anchoring on their own characteristics should lead to relatively extreme positive self-judgments, with insufficient upward adjustments for their peers, whereas for tasks on which people believe that they have low ability, anchoring should produce extreme negative self-judgments, with insufficient downward adjustments for their peers.

Based on pretesting, Kruger classified activities as easy (e.g., driving, using a mouse) or difficult (telling jokes, juggling) and then had participants estimate their percentile ranking for each of the activities. In accord with the egocentrism position, participants consistently placed themselves above the 50th percentile for easy activities, and below the 50th percentile for difficult ones. These findings are consistent, therefore, with the assumption that people concentrate egocentrically on their own attributes in comparative judgments and that emphasis on their negative characteristics leads them to overestimate their shortcomings.

The tendency to concentrate egocentrically on personal prospects and characteristics has important implications for self-other comparisons. In general, if people think egocentrically about their own prospects, then factors that increase their chances of success at the task should induce overconfidence about their prospects (because people focus egocentrically on their own advantage without realizing others have the same advantage),

whereas factors that augur equally unfavorably for themselves and others should lead to pessimistic predictions. Chambers, Windschitl, and Suls (2003) tested this hypothesis by asking participants to predict the likelihood that they versus an average peer would purchase their dream home within a short time frame (next 6 years) or a long one (next 32 years). Because the probability is higher that the event will occur in the longer time frame, egocentrism predicts that people will be overly optimistic about their chances in the long than in the short time frame. The results confirmed this prediction.

Focalism

Focalism is the tendency to place greater weight on whatever hypothesis or outcome is currently the focus of attention (Schkade & Kahneman, 1998). In contrast to egocentrism, which explicitly involves self-reference, focalism involves concentrating on an object due to the way a judgment task is structured. By asking people to compare their characteristics to those of an average peer, studies on the better-than-average effect tend to place the self in the focal position and the average peer in the referent position. Because self-representations contain a greater number of unique qualities than other representations (Karylowski, 1990; Karylowski & Skarzynaka, 1992), focusing on the self highlights these unique features and leads people to perceive themselves as less similar to the average.

By making the self the focal object, therefore, the better-than-average effect merhodology increases the

perceived differences between self and other. According to this reasoning, when people compare the average other to themselves, these differences should be attenuated. In other words, if the positions of self and average are switched, such that the average peer is made the focal object and the self is made the referent, the better-than-average effect should be reversed or at least diminished.

The main support for this focalism prediction comes from studies using the optimistic bias paradigm. Otten and van der Pligt (1996) and Eiser, Pahl, and Prins (2001) both manipulated whether participants were asked to estimate how they would fare relative to their peers on various life events (self-other focus), or how their peers would fare relative to themselves (other-self focus). These studies showed a reduced optimistic bias in the latter condition, that is, when the average peer was the focal object and the self was the referent.

Other studies have compared focalism and egocentrism predictions, although not with average peer comparisons. In two similar lines of research, Windschitl, Kruger, and Simms (2003) and Moore and Kim (2003) placed participants in a competitive situation and asked them to estimate their chances of success. These studies assessed egocentrism by varying whether participants believed the task facilitated or discouraged success (e.g., playing an easy or hard trivia game). Because the task was equally difficult for themselves and their opponent, there was no rational reason for them to alter their estimates based on this information. But from the egocentrism standpoint, concentrating disproportionately on one's own prospects

should lead to overestimation in the case of an easy task and underestimation in the case of a difficult one, which is what these studies demonstrated. Focalism was independently manipulated by asking participants to estimate their own or their opponent's chances of winning. Although the results varied somewhat across experiments, both focalism and egocentrism influenced participants' estimates of success.

Self Versus *Aggregate Comparisons*

In the better-than-average and optimistic bias paradigms, a single entity, the self, is compared to an aggregate, the average peer. The fact that the self is routinely evaluated more favorably than average is generally believed to manifest self-esteem enhancement. However, Klar and Giladi's demonstration of "non-selective superiority and inferiority" biases (Klar, 2002; Klar & Giladi, 2002) calls into question whether self-enhancement assumptions are needed to explain the better-than-average effect. What Klar and Giladi have demonstrated in numerous experiments is that any member of a positively-evaluated group is rated more favorably than the group average (Klar, 2000; Klar & Giladi, 1997). Randomly-selected students at one's university, for example, are evaluated more favorably than the average student at the university. This finding obtains even when comparing an individual group member to other distinct individuals, such as comparing a single police officer to the average of other police officers in the room. Giladi and Klar (2002) have demonstrated this same effect with impersonal

comparisons, such as soap fragrances and musical selections.

Klar and Giladi's (1997, 2002) findings suggest that the greater positivity people claim for themselves may be subsumed by a more general tendency to place greater weight on single entities than on aggregates. The generality of their view is extended by their consistent findings of inferiority biases, that is, the tendency for members of disliked groups to be evaluated less favorably than the group as a whole.

Klar and Giladi's findings are consistent with those of Alicke et al. (1995) in showing that the better-than-average effect is reduced by comparisons with individuated entities versus an average peer. Klar and Giladi's results suggest further
that part of the tendency to evaluate oneself more favorably than an average peer is due to the greater weight people place on any individuated entity versus an aggregate such as an average peer. On the other hand, Alicke et al.'s research show that compared to other individuated entities, the self has a privileged role in that the better-than-average effect is greater when the self is compared to any other individuated entity. Thus, while Klar and Giladi's model provides a cogent and general account of individual-group comparisons, an additional factor appears to be operating when the self is plugged into the comparison.

Klar and Giladi have recently expanded their view in what they call the LOGE model (local comparisons-general standards model, 2002). According

to this model, the task of estimating, for example, a group member's politeness relative to the average student, requires comparing the individual's politeness to a local standard, namely, the average level of politeness in the immediate peer group (for example, students at this university). When people make this comparison, however, they are unable to avoid applying a more general standard, which might include all other people. To the extent that the local standard is more favorable than the general one (i.e., this group is more polite than people in general), superiority biases should emerge such that any person in the group will be evaluated more favorably than the group average. This occurs because people inadvertently take into account the superiority of the local standard to the general one, rather than simply recognizing that the person is an average member of a superior group. By this same reasoning, evaluations of any individual who belongs to an inferior group (relative to the general standard) should be less favorable than the group average. The LOGE model, therefore, provides a useful and general account of comparisons between specific entities and group averages. The model's limitation as applied to the better-than-average effect is that it does not contain mechanisms to explain the enhanced favorableness that is generally accorded to the self versus other entities.

Better-Than-Average Heuristic

Research on selective recruitment leaves little doubt that the optimistic bias is altered by providing people with access to others' beliefs about their prospects in life. We question, however, whether careful thinking about one's

behavior is a necessary, or even a typical component, of self versus other comparisons. The assumption that people think carefully about specific behaviors is less tenable in the better-than-average effect paradigm than in optimistic bias research. In better-than-average effect research, participants typically judge abstract traits rather than concrete behaviors. Furthermore, the better-than-average effect has been obtained in settings in which participants make hundreds of trait comparisons, and it seems unlikely that they engage in careful behavior analyses for each comparison.

Alicke et al. (1995; 2001) have suggested that the better-than-average effect is attributable to people applying a better-than-average heuristic. This heuristic entails an automatic tendency to assimilate positively-evaluated social objects toward ideal trait conceptions, and does not assume that people routinely review their behaviors to make self-other judgments. The assumption that people apply a better-than-average heuristic is consistent with Sears' (1983) notion of a person positivity bias, and with the general positivity bias that pervades social judgment (Matlin & Stang, 1978). The degree of assimilation varies for social objects of different value. Family members and friends are accorded a great deal of positivity, and concrete individuals are accorded more than an average or hypothetical peer. At the apex of the positivity ladder resides the self.

The extent to which people assimilate toward ideal trait conceptions depends on the ambiguity of the judgment dimension and on the strength of prior self-conceptions.

As noted previously, people are not indiscriminately self-serving and tend to avoid easily-refutable claims. Nevertheless, trait comparisons are especially susceptible to the better-than-average heuristic because trait conceptions can become independent of behavioral exemplars (Klein & Loftus, 1993; Klein, Loftus, & Burton, 1989; Klein, Loftus, Trafton, & Fuhrman, 1992). Research by Klein and Loftus shows that people require the same amount of time to recall an instance in which they displayed a trait regardless of whether they first judge whether that trait is self-descriptive or simply define the trait. If people accessed specific behaviors to answer trait questions, then judging whether a trait was self-descriptive would facilitate recalling an instance in which the trait was displayed. Based on numerous failures to find such facilitation effects, Klein and Loftus argue that trait and behavioral information are stored in separate memory systems.

The better-than-average heuristic entails three main assumptions. First, when people are asked, for example, to judge their "kindness" in relation to an average peer, the default is to assimilate their self-ratings toward their ideal conceptions of kindness. These ideal trait constructs do not necessarily translate into the highest available scale point. People who are too cooperative, for example, can be taken for patsies, and extreme honesty can slide into rudeness.

The second assumption is that people make automatic adjustments based on past self-conceptions. Those who have frequently been criticized for their unhelpfulness will still associate with ideal conceptions of helpfulness

but will assimilate less to accommodate reality. The final assumption is that average peers, rather than being assimilated toward idea standards, are evaluated in relation to oneself. Because the self typically represents a relatively high scale point, average peers are assimilated toward oneself, while still being rated less favorably.

Although better-than-average heuristic assumptions have not been tested directly, there is strong evidence to suggest that behavior recruitment is not a necessary component of the better-than-average effect. One source of support for this assertion comes from the fact that the better-than-average effect emerges even under extreme cognitive load conditions (Alicke et al., 1995, Study 7).

Another source of support for the nonbehavioral assumption comes from research on what we have called the "better-than-myself" effect (Alicke et al., 2001).
In our first study on this topic, participants in a pretesting session estimated the percentage of times they exhibited behaviors relevant to various trait dimensions. For example, participants were asked to estimate the percentage of times they were cooperative or uncooperative when the opportunities to display that trait arose. This behavior percentage methodology was modeled on the act-frequency approach to personality (Buss & Craik, 1983) which assumes that people define their traits by estimating the frequency with which they engage in trait-relevant behaviors. Participants in Study 1 were told to use their percentage estimates to rate themselves on each corresponding trait dimension.

In the main session conducted approximately six weeks later, participants received what they believed were the average behavior percentage estimates obtained during the academic quarter. What participants actually received were the identical estimates they had provided in the pretesting session. Thus, if participants estimated that they were cooperative 86% of the time and uncooperative 14% of the time, they were led to believe that the average student was cooperative 86% of the time and uncooperative 14% of the time. Participants were asked to use these estimates to evaluate where they and the average college student fell on the trait dimension.

Results were consistent across the board: Despite looking at the exact behavior estimates they had provided in pretesting, participants evaluated themselves more favorably than the average college student on almost every dimension. These findings were replicated in a second study in which participants received what they believed were the behavior estimates made by a randomly-selected peer rather than the average college student. Although the magnitude of the effect was reduced, participants still placed themselves significantly above their peers based on identical behavior estimates.

A third study assessed whether participants might want to change their behavior estimates once they saw the estimates of an average person or a peer. A possible explanation for the previous studies' results is that participants believed they had underestimated the frequency with which they engaged in positive behaviors after seeing others' estimates. To test this, we gave participants the opportunity to change their frequencies

after seeing others' estimates. In general, participants made relatively few changes. Furthermore, changes that were made did not correlate with comparative ratings.

The better-than-myself paradigm used in these studies has one notable limitation, namely, that while participants might readily acknowledge that their behavior frequencies are similar to others', they could still conclude that their own trait-relevant behaviors are more exemplary. For example, people might accept that they and another person are cooperative 85% of the time but believe that their own cooperative behaviors are *more* cooperative than someone else's. We used a different methodology to circumvent this problem in a fourth study. This time, we asked participants to list every behavior they could think of that reflected where they stood on one of four trait dimensions (kind-unkind, intelligent-unintelligent,
honest-dishonest, and creative-uncreative). After listing the relevant behaviors, participants received a list made by another student and then compared themselves to the student on the trait dimension. On average, the lists participants received from others should have been just as positive as the ones they produced themselves. Nevertheless, with a peer's trait-relevant behaviors in front of them, they continued to evaluate themselves more favorably than the peer. We believe that this study provides reasonably strong evidence that differences in behavior recruitment are not a necessary component of the better-than-average effect.

THE MOTIVATION-NONMOTIVATION BOGEY

Selective recruitment, focalism, and egocentrism have all been shown to moderate the better-than-average effect. These judgment features have been proposed as alternatives to self-enhancement assumptions (Chambers & Windshitl, 2004). The credibility of the nonmotivational position would be heightened if it could be shown that these factors, either in isolation or combination, eliminate the better-than-average effect. But as a general rule, variations in these judgment facets alter, but do not eliminate, the better-than-average effect. For example, for focalism to provide a sufficient explanation of the better-than-average effect, people must evaluate average peers more favorably than themselves when the average peer is the focal object and the self is this referent. This is not what happens. In studies on focalism, reversing the position of self and average attenuates but does not eliminate the effect. The same is true for effects attributable to egocentrism or selective recruitment. Thus, the specific information people focus on, and the kinds of comparisons they make, while important moderators of the better-than-average effect, do not suffice to explain it.

This failure of these various mechanisms to account completely for the better-than-average effect does not, of course, establish the role of self-enhancement. But various other findings do suggest a role for self-enhancement. The finding in our early study (Alicke, 1985) that the better-than-average effect increases with positive controllable traits and decreases

with negative uncontrollable traits, provides one source of support for the self-enhancement motive. This result shows that people are most self-aggrandizing when they feel responsible for their positive characteristics, and least self-aggrandizing when they believe that fate accounts for their negative characteristics.

That the tendency to evaluate oneself more favorably than others increases with the desirability of the judgment dimensions provides even more basic support for the self-enhancement motive (Weinstein, 1980; Hayes & Dunning, 1996). Another aspect of the better-than-average effect that is difficult to account for without reference to self-enhancement is the consistent finding that the effect is stronger on ambiguous or subjectively-defined dimensions (Allison, Messick, & Goethals, 1989; Dunning, Meyerowitz, & Holzberg, 1989). Apparently, people
are most self-serving when they have the latitude to construe comparisons in a manner that emphasizes their superiority.

Egocentrism and selective recruitment, the two most prominent and genetal nonmotivational explanations of the better-than-average effect, assume that the effect involves the type of behaviors or comparison targets people think about, or the relative emphasis they place on their own actions and characteristics. Research on the better-than-myself effect, however, shows that the tendency to evaluate oneself more favorably than others perseveres even when behavioral evidence is equated for self and other. Furthermore, the tendencies to emphasize one's own actions and characteristics, and to recruit

selectively information that casts oneself in the most favorable light, are readily interpretable as serving the need to self-enhance.

The idea that people automatically identify with ideal trait conceptions is seemingly contradicted by Kruger's findings of a worse-than-average effect and Klar and Giladi's findings of inferiority biases. This apparent discrepancy can be readily resolved, however, by expanding the better-than-average heuristic view to include the possibility for contrast as well as assimilation effects. Contrast effects are likely to occur when the object of judgment is obviously unfavorable, such as a behavioral weakness or a disliked individual. Kruger, for example, obtained his worse-than-average effects with behaviors such as juggling and playing chess–behaviors for which the majority of people readily recognize their shortcomings. Instead of automatic assimilation to ideal trait conceptions, we assume that people automatically contrast themselves from the ideal under such circumstances.

SUMMARY AND CONCLUSIONS

People like to think favorably of themselves, and for good reason. Positive self-views promote harmonious personal relationships and successful goal-striving. Those who feel good about themselves are less prone to negative moods and depression (Taylor et al., 2003). The ways in which people strive to maintain favorable self-images are legion, including taking credit for positive outcomes and denying responsibility for

negative ones (Bradley, 1978; Zuckerman, 1979), selectively recalling favorable information about themselves (Sedikides & Gregg, 2003), exaggerating the ability of people who outperform them and who they outperform (Alicke et al., 1997), searching selectively for information that confirms a positive self-image, evaluating others in a way that reflects favorably on one's own performance (Dunning & Cohen, 1992), and affirming threatened aspects of self (Steele, 1978). Each of these behavior tendencies, either strategically or inadvertently, serves to promote favorable self-views.

The better-than-average effect is difficult to locate in this "zoo" (Tesser, 2000) of self-enhancement mechanisms. For one thing, it is unclear whether the better-than-average effect reflects an already favorable self-image, or is constructed spontaneously. In other words, the better-than-average effect could be a consequence of the aforementioned self-enhancement mechanisms, or it could be a distinct mechanism in it own right. Although numerous better-than-average effect studies have been conducted, we still do not know precisely what kind of effect it is. Does the better-than-average effect, for example, primarily reflect a tendency to contrast oneself upward from the average, to contrast the average downward from the self, or as the better-than-average heuristic implies, upward assimilation of both self and average toward an ideal trait concept, with greater assimilation for the self. To answer this basic question requires a design in which different groups of participants make either absolute self-judgments or absolute average-peer judgments, followed by comparative self versus average judgments.

This design would make it possible to analyze precisely assimilation and/or contrast effects in self versus average peer ratings.

The better-than-average effect would be less important if it were due solely to the vague and amorphous nature of comparisons with an "average peer." But numerous studies have shown that people also evaluate themselves more favorably than specific peers, although the effect is attenuated in such comparisons. An interesting offshoot of better-than-average effect research concerns the nature of the difference between comparisons with specific and average peers. One possible difference is that people confer "personhood" on real human beings and evaluate them more favorably than statistical entities on this basis (Sears, 1983). A related possibility is that people are more modest in comparisons with real individuals and therefore inhibit self-serving tendencies.

One important direction for future research is, as noted above, to compare conditions in which people make comparative self versus average peer ratings to those in which they rate self and average individually. This design would answer a fundamental question regarding the better-than-average effect, namely, whether self or average ratings are altered when made comparatively, and if so, in which direction this alteration occurs. Most researchers, including us, assume that the self is an anchor point against which average peer ratings are referred, but this assumption has not been tested directly in previous research. If the self-anchoring assumption is correct, then self-ratings should not change when they are made individually versus when they are made in

comparison to the average peer. A downward contrast of the average peer from the self would indicate that the effect involves downplaying others' characteristics relative to one's own. A different possibility is that people anchor on the average peer, and contrast the self upward from that point, suggesting self-inflation relative to the average standard. A third possibility, one that the better-than-average heuristic predicts, is that self ratings represent a stable (and high) anchor based on immediate associations with an ideal standard, and that comparisons with the high self standard lead to upward assimilation of the average peer, but an assimilation that falls short of the self.

Another direction for future research is to introduce manipulations designed to alter the better-than-average effect. An obvious possibility is to introduce threats to one's perceived standing on a trait dimension. Self-enhancement perspectives predict
that the better-than-average effect should be increased when people confront a threat to an important aspect of their identities. Again, this fundamental assumption has yet to be tested explicitly.

As noted at the outset, the better-than-average effect is a type of social comparison in which people are asked to evaluate themselves with reference to a normative standard, namely, an average peer or the midpoint of a distribution. Research on this topic has shown consistently that people place themselves above this standard, and also above specific peers. The better-than-average effect tells us that people evaluate themselves more favorably than others, and this effect is

not due solely to the weight they place on their own characteristics in comparative judgments, their tendencies to focus on themselves as the judgment object, or on the tendency to recruit favorable information about themselves. In fact, one can reasonably argue that both egocentrism and selective recruitment serve self-enhancement needs. In other words, thinking egocentrically about one's own positive qualities, or selecting downward comparison targets, may represent motivated propensities to reach favorable conclusions about one's standing relative to others. Thus, various findings suggest that the better-than-average effect is due, at least in part, to a desire to view oneself in a favorable light relative to ones peers. The task in future investigations is to evaluate which kinds of self-threats influence self versus average judgments and to assess whether such alterations entail changes in self ratings average ratings or both.

REFERENCES

Alicke, M. D. (1985). Global self-evaluation as determined by the desirability and controllability of trait adjectives. *Journal of Personality and Social Psychology, 49*, 1621–1630.

Alicke, ML D., Klotz, M. L., Breitenbecher, D. L., Yurak, T. J., & Vredenburg. D. S. (1995). Personal contact, individuation, and the better-than-average effect. *Journal of Personality and Social Psychology, 68*, 804–825.

Alicke, M. D., LoSchiavo, F. M., Zerbst, J., & Zhang, S. (1997). The person who outperforms me is a genius: Maintaining perceived competence in upward social comparison. *Journal of Personality and Social Psychology, 72*, 781–789.

Alicke, M. D., Vredenburg, D. S., Hiatt, M., & Govorun, O. (2001). The "better than myself" effect. *Motivation and Emotion, 25*, 7–22.

Allison, S. T., Messick, D. M., & Goethais, G. R. (1989). On being better but not smarter than others: The Muhammad Ali effect. *Social Cognition, 7*, 275–296.

Batimeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 680–740). Boston: McGraw-Hill.

Bradley, G. W. (1978). Self-serving bias in the attribution process: A reexamination of the fact or fiction question. *Journal of Personality and Social Psychology, 36*,56–71.

Brown, J. D. (1986). Evaluations of self and others: Self-enhancement biases in social judgments. *Social Cognition, 4*, 353–376.

Buss, D. M., & Graik, K. H. (1983). The act frequency approach to personality. *Psychological Review, 90*, 105–126.

Chambers, J.R., Windschitl, P.D. Biases in comparative judgments: The role of nonmotivated factors in above-average and comparative-optimism effects. *Psychological Bulletin, 130*, 813–838.

Chambers, J. R., Windschitl, P. D., & Suls, J. (2003). Egocentrism, event frequency, and comparative optimism: When what happens frequently is "more likely to happen to me." *Personality and Social Psychology Bulletin, 29*, 1343–1356.

Codol, J. P. (1975). On the so-called "superior conformity of the self" behavior: Twenty experimental investigations. *European Journal of Social Psychology*, 5, 457–501.

College Board. (1976–1977). Student descriptive questionnaire. Princeton, NJ: Educational Testing Service.

Cross, P. (1977). Not can but will college teachers be improved? *New Directions for Higher Education, 17*, 1–15.

Dunning, D., & Cohen, G.L. (1992). Egocentric definitions of traits and abilities in social judgment. *Journal of Personality and Social Psychology, 63*, 341–355.

Dunning, D., & Hayes, A. F. (1996). Evidence for egocentric comparison in social judgment. *Journal of Personality and Social Psychology, 71*, 213–229.

Dunning, D., Meyerowitz, J. A., & Holzberg, A. D. (1989). Ambiguity and self-evaluation: The role of idiosyncratic trait definitions in self-serving assessments of ability. *Journal of Personality and Social Psychology, 57*, 1102–1090.

Epley, N., & Dunning, D. (2000). Feeling "holier than though": Are self-serving assessments produced by errors in self or social prediction? *Journal of Personality and Social Psychology, 79*, 861–875.

Eiser, J. R., Pahl, S., & Prins, Y. R. A. (2001). Optimism, pessimism, and the direction of self-other comparisons. *Journal of Experimental Social Psychology, 37*, 77–84.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117–140.

Giladi, E. C., & Klar, Y. (2002). When standards are wide of the mark: Nonselective superiority and inferiority biases in comparative judgments of objects and concepts. *Journal of Experimental Psychology: General, 131*, 538–551.

Karylowski, J. J. (1990). Social reference points and accessibility of trait-related information in self-other similarity judgments. *Journal of Personality and Social Psychology, 58*, 975–983.

Karylowski, J. J., & Skarzynska, K. (1992). Asymmetric self-other similarity judgments depend on priming self-knowledge. *Social Cognition, 10*, 235–254.

Klar, Y. (2002). Way beyond compare: Nonselective superiority and inferiority biases in judging randomly assigned group members relative to their peers. *Journal of Experimental Social Psychology, 38*, 331–351

Klar, Y, & Giladi, E. E. (1997). No one in my group can be below the group's average: A robust positiviry bias in favor of anonymous *peers. Journal of Personality and Social Psychology, 73*, 885–901.

Klein, S. B., & Loftus, J. (1993). The mental representation of trait and autobiographical knowledge about the self. In T. K. Srull & R. S. Wyer *(Eds.), Advances in social cognition (Vol*. 5, pp. 1–49). Hillsdale, NJ: Erlbaum.

Klein, S. B., Loftus, J., *&* Burton, H. A. (1989). Two self-reference effects: The importance of distinguishing between self-descriptiveness judgments and autobiographical retrieval in self-referent encoding. *Journal of Personality and Social Psychology, 56*, 853–865.

Klein, S. B., Loftus, J., Trafton, J. G., & Fuhrman, R. W. (1992). Use of exemplars and abstractions in trait judgments: A model of trait knowledge about the self and others. *Journal of Personality and Social Psychology, 63*, 739–753.

Kruger, J. (1999). Lake Woebegon be gone! The "below-average effect" and the egocentric nature of comparative ability judgments. *Journal of Personality and Social Psychology, 77*, 221–232,

Matlin, M., & Stang, D. (1978). *The Pollyanna principle: Selectivity of language, memory, and thought*. Cambridge, MA: Schenkman.

Moore, D. A., & Kim, T.G. (2003). Myopic social prediction and the solo comparison effect. *Journal of Personality and Social Psychology, 85*, 1121–1135.

Nisbett, R. E., &Ross, L. (1980). *Human inference: Strategies and shortcomings of social Judgment*. Englewood Cliffs, NJ: Prentice-Hall.

Otten, W., & Van der Pligt, J. (1966). Context effects in the measurement of comparative optimism in probability judgments. *Journal of Social and Clinical Psychology, 15*, 80–101.

Perloff, L. S., & Fetzer, B. K. (1986). Self-other judgments and perceived vulnerability to victimization. *Journal of Personality and Social Psychology, 50*, 502–510.

Preston, C. E., & Harris, S. (1965). Psychology of drivers in traffic accidents, *journal of Applied Psychology, 49*, 284–288.

Reeder, G. D., & Brewer, M. B. (1979). A schematic model of dispositional attribution in interpersonal perception. *Psychological Review, 86*, 61–79.

Rothbart, M., & Park, B. (1986). On the confirmability and disconhrmability of trait concepts. *Journal of Personality and Social Psychology, 50*, 131–142.

Schlenker, B. R. (1980). *Impression management: The self-concept, social identity, and interpersonal relations*. Monterey, CA: Brooks/Cole.

Schkade, D. A., & Kahneman, D. (1 998). Does living in California make people happy? A focusing illusion in judgments of life satisfaction. *Psychological Science, 9*, 340–346.

Sears, D. O. (1983). The person-positivity *bias. Journal of Personality and Social Psychology, 44*, 233–250.

Sedikides, C., & Gregg, A.P. (2003). Portraits of the self. In M. A. Hogg & J. Cooper (Eds.), *Sage handbook of social psychology* (pp. 110–138)) London: Sage.

Sedikides, C., & Sttube, M. J. (1997). Self-evaluation: To thine own self be good, to tine own self be sure, to thine own self be true, and to thine own self be better. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol 29, pp. 209–269). New York: Academic Press.

Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). New York: Academic Press.

Suls, J., Lemos, K., & Stewart, H. L. (2002). Self-esteem, construal, and comparisons with the self, friends, and peers. *Journal of Personality and Social Psychology, 82*, 252–261.

Svenson, O. (1981). Are we all less risky and more skillful than our fellow drivers? *Acta Psychologica, 47*, 143-148.

Swann, W. B. jr., Rentfrow, P. J., & Guinn, J, S. (2003). Self-verification: The search for coherence. In M. R. Leary and]. P. Tangney (Eds.), *Handbook of Self and Identity* (pp. 367–383). New York: Guilford Press.

Tabachnik, N., Crocker, J., & Alloy, L. B. (1983). Depression, social comparison, and the false-consensus effect. *Journal of Personality and Social Psychology, 45*, 688–699.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103. 1*93–210.

Taylor, S. E., Lerner, J. S., Sherman, D. K., Sage, R. M., & McDowell, N. K. (2003). Are self-enhancing cognitions associated with healthy or unhealthy biological profiles? *Journal of Personality and Social Psychology, 85*, 605–615.

Tesser, A. (2000). On the confluence of self-esteem maintenance mechanisms. *Personality and Social Psychology Review, 4*, 290–299.

Weinstein, N. D. (1983). Reducing unrealistic optimism about illness susceptibility. *Health Psychology, 2*, 11–20.

Weinstein, N. D. (1980). Unrealistic optimism about future life events. *Journal of Personality and Social Psychology, 39*, 806–820.

Weinstein, N. D. (1984). Why it won't happen to me: Perceptions of risk factors and susceptibility. *Health Psychology, 3*, 431–457.

Weinstein, N. D., & Lachendro, E. (1982). Egocentrism as a source of unrealistic optimism. *Personality and Social Psychology Bulletin, 85*, 195–200.

Windschitl, E D., Kruger, J., & Sims, E. N. (2003). The influence of egocentrism and focalism on people's optimism in competition: When what affects us equally affects me more. *Journal of Personality and Social Psychology, 85*, 389–408.

Zuckerman, M. (1979). Attribution of success and failure revisited, or: The motivational bias is alive and well in attribution theory. *Journal of Personality, 47*, 245–287.