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Social comparison and confidence: When thinking you're better than average predicts overconfidence (and when it does not) ☆

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Abstract

A common social comparison bias—the better-than-average-effect—is frequently described as psychologically equivalent to the individual-level judgment bias known as overconfidence. However, research has found "Hard–easy" effects for each bias that yield a seemingly paradoxical reversal: Hard tasks tend to produce overconfidence but worse-than-average perceptions, whereas easy tasks tend to produce underconfidence and better-than-average effects. We argue that the two biases are in fact positively related because they share a common psychological basis in subjective feelings of competence, but that the "hard–easy" reversal is both empirically possible and logically necessary under specifiable conditions. Two studies are presented to support these arguments. We find little support for personality differences in these biases, and conclude that domain-specific feelings of competence account best for their relationship to each other.

Keywords: Better-than-average effect; Above-average effect; Overconfidence; Positive illusions; Hard–easy effect

Introduction

How do people evaluate their own abilities? This was one of the basic questions underlying Festinger's original formulation of social comparison theory. Festinger (1954) proposed that people have a fundamental desire to evaluate their abilities, but often cannot test them against an objective standard. Therefore, the abilities of others become the subjective reality that people use to reduce this uncertainty. Festinger largely portrayed this as a "cold" process (Goethals, Messick, & Allison, 1991), although with the recognition that there is a "unidirectional drive upward" in evaluations: People prefer to be better than others on a given ability, not worse.

A "hotter" version of social comparison theory emerged in the 1980s and 1990s that emphasized the importance of "downward comparisons" (Hakmiller, 1966; Wills, 1981) as a source of self-enhancement and positive affect (Alicke, 1985; Goethals et al., 1991; Taylor, 1989; Taylor, Wayment, & Collins, 1993). Theories of downward comparison proposed that people seek and recall social comparison information favorable to themselves in order to hold the view that they are superior to others. Perhaps the most famous example of downward comparison is the "better-than-average" (BTA) effect (Goethals et al., 1991; Taylor & Brown, 1988), demonstrated in an early study which found that 90% of drivers believed that they were above average in driving ability (Svenson, 1981). Hundreds of studies have since replicated this pattern across a wide range of ability domains (e.g., Chambers & Windschitl, 2004;

☆ Initial results were reported at the Behavioral Decision Research in Management Conference held at Duke University in May, 2004. Study 1 uses data from Study 2 of Burson, Larrick, and Klayman (2006), but provides new and more extensive analyses; means for perceived percentile for some domains are reported in Burson et al. (2006).

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Sedikides, Gaertner, & Toguchi, 2003; Windschitl, Kruger, & Simms, 2003).

In the early 1990s, Goethals et al. (1991) observed that an important question not directly raised by Festinger (1954) was, "How *well* do people evaluate their own abilities?" The answer is important to everyday organizational behavior. The misperception of ability—high or low—may lead to unwise decisions. For example, people who believe that they are better than average are less likely to listen to the advice of others (Gino & Moore, in press) and more willing to engage in competition (Camerer & Lovallo, 1999; Moore & Kim, 2003). Those who think more highly of themselves are also likely to expect commensurate recognition and rewards and feel frustrated otherwise (Leventhal, 1976). None of these issues is problematic if relative comparisons are accurate but they are potentially detrimental if people hold incorrect views of themselves.

In answering the question of accuracy, Goethals et al. (1991) concluded that many social comparison evaluations are prone to systematic bias. For example, the BTA effect can be regarded as a bias because of the statistical unlikelihood that a majority of people would be above average. More careful studies have elicited a percentile estimate on an ability domain within a well-defined population. These studies have found that more than 50% of a population believes it is above the 50th percentile within that population, which is a statistical impossibility (e.g., Klar & Giladi, 1997).

The question "How well do people evaluate their abilities?" has also received attention from researchers in cognitive psychology in work on overconfidence. Decades of research have compared measures of subjective confidence with objective performance on a variety of tasks (e.g., Brenner, Griffin, & Koehler, 2005; Gigerenzer, Hoffrage, & Kleinbölting, 1991; Klayman, Soll, González-Vallejo, & Barlas, 1999; Lichtenstein & Fischhoff, 1977; Ronis & Yates, 1987; Yates, 1990). In one common paradigm, participants are given general knowledge questions with two possible answers. They are then asked to choose the answer they think is correct and to estimate the probability that they are right. Over many judgments, the average probability given can be compared to the actual proportion of choices that are correct. If people are insightful about their ability on these knowledge questions, we would expect that their expressed confidence would match the rate at which they answered questions correctly. A gap between average confidence and proportion correct indicates a lack of insight about ability. And, indeed, such a gap often occurs. Many of the original studies found that people were overconfident (OC): Average confidence exceeded average proportion correct.

Thus, the question, "how well do people evaluate their abilities?" has received similar answers in these two literatures: People systematically overestimate their abilities. And many researchers have noted this similarity. The better-than-average effect and overconfidence are frequently described as related—even identical—phenomena (e.g., Alba & Hutchinson, 2000; Daniel, Hirshleifer, & Subrahmanyam, 1998; Hoelzl & Rustichini, 2005; Juslin, Winman, & Olsson, 2000; Moore, Kurtzberg, Fox, & Bazerman, 1999). For example, one popular book on behavioral economics uses one phenomenon to illustrate the other: "[O]verconfidence often appears in the form of unrealistically high appraisals of one's own qualities versus those of others. The classic example of this tendency is a 1981 survey of automobile drivers in Sweden, in which 90% of them described themselves as above average drivers" (Belsky & Gilovich, 1999, pp. 153–154). Intuitively, the connection between BTA and OC is appealing, and nonacademics also readily endorse the relationship between them (Yates, Lee, & Shinotsuka, 1996).

But is there, in fact, a direct relationship between the two biases? If one knew, for example, that Ann thought she was in the 80th percentile of performance on a geography quiz and Bill thought he was in the 50th percentile, would one be able to predict that Ann is more overconfident than Bill if she was asked to give a confidence level for the individual answers? Similarly, if one learned that sports quizzes elicit higher percentile estimates on average than do geography quizzes, would one be able to predict that sports quizzes elicit more overconfidence than do geography quizzes? Surprisingly, these direct questions about the relationship between BTA and OC have not been tested empirically.

The apparent similarity of BTA and OC has been cast in doubt in recent years when "hard–easy" manipulations in each literature were discovered to have opposite effects on the two biases. In the overconfidence literature, people have been found to be overconfident on "hard" questions but underconfident on "easy" questions (Brenner, 2003; Lichtenstein & Fischhoff, 1977), where hard and easy are defined in terms of actual performance. For example, if general knowledge questions are sorted based on the proportion of respondents who answered them correctly, then those questions that are frequently answered incorrectly will show overconfidence and those that are frequently answered correctly will show underconfidence. In contrast, researchers in the BTA tradition have found that "easy" tasks produce the BTA effect, and that "hard" tasks actually produce a worse-than-average (WTA) effect, where hard and easy tasks were an experimental manipulation (e.g., Burson et al., 2006; Kruger, 1999; Moore & Kim, 2003). Thus, hard tasks appear to produce greater overconfidence but weaker BTA effects, whereas easy tasks produce less overconfidence but stronger BTA effects. If BTA and OC are related (even identical) phenomena, why does varying task difficulty have *opposite* effects on each bias? Is it a real reversal that is replicable within the same