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Pride before the fall: (Over)confidence predicts escalation of public commitment

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HIGHLIGHTS

- We examined the effect of overconfidence on escalation of commitment.
- In a private context, overconfidence is unrelated to escalation decisions.
- In a public context, overconfidence is positively related to escalation decisions.
- Individual differences in overconfidence are related to reputation sensitivity.
- Reputational concerns drive publicly announced investment decision.

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ABSTRACT

In four studies we examined the effect of overconfidence on escalation of commitment in investment tasks. Study 1 ($N = 105$) revealed a positive relationship between overconfidence and decisions to escalate. In contrast, Study 2 ($N = 121$) showed that overconfidence was negatively related to escalation of commitment. The reversal of this effect appeared to emerge as a function of the public (Study 1) versus private (Study 2) context in which the investment decisions were made. In Study 3 ($N = 108$) and Study 4 ($N = 380$) we experimentally replicated this pattern of findings and found support for the explanatory role of reputational concerns. A meta-analysis of the findings from our four studies showed that overconfidence is positively related to escalation of commitment in public contexts, and that this relationship is absent when decisions are made privately.

1. Introduction

> *"I am in blood – Stepped in so far that, should I wade no more, returning were as tedious as go o'er."*
>
> [*Macbeth*]

Macbeth's bloody pursuit of the Scottish crown is a potent tale of the hazards of overconfidence. Fueled by the false confidence instilled in him by three witches who recognized and preyed upon his ambition, Macbeth embarks on a murderous course of action from which he is unable to extricate himself, even after his conscience and better judgment lead him to recognize the error of his plight. But people do not need witches to instill in them overly optimistic views of their future outcomes. Indeed, overconfidence and its associated perils are so widely experienced that they have featured in the canons of human history from the antiquities to today.

There is an intuitive association between confidence and decision-making: We are most likely to commit our time, effort, and financial resources to pursuing those decisions about which we are most confident (e.g., McCarthy, Schoorman, & Cooper, 1993). Decisions that arise from high levels of confidence often lead decision-makers to persevere with plans, even in the face of objective evidence that their initial decision may have been a poor one (Lichtenstein, Fischhoff, & Phillips, 1982). The problem with using one's confidence as a compass to navigate uncertainty in this way is that we have a near universal tendency to see ourselves as more in control of our outcomes than we actually are (for a review, see Moore & Healy, 2008). Although people are quick to recognize this folly in others (Pronin, Gilovich, & Ross, 2004), they also tend to see themselves as rare unicorns whose unique ability to control transparently random events (Langer, 1975) leads to unrealistic optimism about their own goals (Weinstein, 1980). Moreover, individual differences in overconfidence predict people's willingness to mistakenly bet on their own future success (Campbell, Goodie, & Foster, 2004). Thus,

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while appropriate levels of confidence can direct action and goal perseverance in a functional way, *over*confidence might misdirect action and goal perseverance toward suboptimal outcomes. Overconfidence might then be associated with goal perseverance even in the face of obviously looming losses. The relationship between confidence and goal perseverance suggests that *over*confidence, defined as a belief that one is more skilled, intelligent, and capable than one actually is (Epley & Whitchurch, 2008; Kruger & Dunning, 1999; von Hippel & Trivers, 2011), may play a role in escalation of commitment.

1.1. Escalation of commitment

Escalation of commitment can occur when a decision maker allocates money or resources to the pursuit of a goal and then learns that his or her initial investment decision may have been a poor one. At such a point he or she must decide whether to persist or withdraw from the previously chosen course of action; persistence in the face of disheartening feedback captures what is meant by escalation of commitment (Brockner, 1992). Since Staw's (1976, 1981) seminal work on escalation of commitment, researchers in the fields of economics and social and organizational psychology have showed a steady interest in this phenomenon, which has been noted as one of the most robust and costly of organizational decision errors (Sleesman, Conlon, McNamara, & Miles, 2012).

Various explanations for escalation of commitment have been offered (see Brockner (1992), Sleesman et al. (2012), for an overview). Staw's (1981) earliest work on escalation of commitment revealed that people escalate in an effort to rationalize their initial behavioral errors. Such attempts at rationalization may be directed at the self (Aronson, 1976), but they may also be directed externally. For instance, Brockner, Rubin, and Lang (1981) found that entrapment, the feeling of having invested too much to quit, is influenced by social anxiety and the presence of an audience. A meta-analytic review by Sleesman et al. (2012) concludes that in terms of factors affecting escalation of commitment, “one of the most powerful drivers is whether a decision maker faces a strong ego threat. Thus, the desire to ‘save face’, or prove oneself and maintain one's reputation appears to be a strong force affecting the tendency to escalate.” (Sleesman et al., 2012, p.554).

1.2. Overconfidence and escalation of commitment

Explanations for overconfidence have largely focused on *intra*personal hedonic benefits such as higher self-esteem (e.g., Dunning, Leuenberger, & Sherman, 1995; Taylor & Brown, 1988). Such motivations to bolster and protect one's own self-esteem may play a role in shaping decisions regarding whether or not to persevere with an initially chosen course of action, even after receiving objective feedback that this is proving less successful than anticipated. Accordingly, escalation of commitment can follow from internal justification processes; people attempt to protect their own self-image by avoiding conceding flaws in their initial reasoning (Aronson, 1976).

It has also been suggested that overconfidence might be *inter*personally motivated (von Hippel & Trivers, 2011). Recent work supports this notion by demonstrating that overconfident people emerge as leaders within small groups (Anderson, Brion, Moore, & Kennedy, 2012) and leadership selection contexts (Ronay, Oostrom, & Lehmann-Willenbrock, 2016; Ronay, Oostrom, & Rusch, 2016), and are also more successful in driving away romantic competitors (Murphy et al., 2015). Von Hippel and Trivers (2011) argue that overconfidence is a form of self-deception that serves the goal of interpersonal deception by convincing others that one's enhanced self-views are not overstated. Thus, overconfidence might be associated with heightened sensitivity to reputational concerns, which may also play a role in escalation of commitment. Indeed, Staw and Ross (1980) demonstrated that leaders who have successfully followed a consistent course of action are most positively evaluated. They labeled the strong interaction effect of success and consistency the “hero effect”. We expect that if overconfidence is motivated in part by interpersonal motives, then higher levels of confidence may make the prospect of basking in this hero effect loom especially large, and so drive decisions toward escalation.

In short, our reading of the separate literatures on overconfidence and escalation of commitment revealed complementary theoretical accounts for the causes of overconfidence (Dunning et al., 1995; Taylor & Brown, 1988; von Hippel & Trivers, 2011) that dovetail to suggest a positive association between overconfidence and escalation of commitment. Although others have shown that conceptually related variables such as self-efficacy (Whyte, Saks, & Hook, 1997), self-esteem (Sivanathan, Molden, Galinsky, & Ku, 2008), and egotism (Zhang & Baumeister, 2006) influence escalation decisions, or related decision-making processes such as sunk-cost effects (Arkes & Blumer, 1985) and entrapment (Brockner & Rubin, 1985), to our knowledge, only one study has empirically tested the relationship between overconfidence and escalation of commitment. McCarthy et al. (1993) reported that when entrepreneurs' confidence in their own ventures exceeded their confidence in the likely success of others' comparable business ventures, they were more likely to escalate commitment to their project. Compared to other variables such as financial indicators, overconfidence provided the clearest signal that the individual was at risk of escalation bias in future decisions. However, because the target of entrepreneurs' overconfidence (i.e., their project) was also used as the measure of escalation in this earlier work, it is unclear whether this finding reflects an association between trait overconfidence and escalation of commitment, or rather some misappraisal of the details surrounding their specific project and/or the market competition.

1.3. Our approach

We conducted four studies that examined whether individual differences in people's overconfidence in an unrelated domain (i.e., their general knowledge) is associated with escalation of commitment to financial investment decisions. Along the way we encountered some surprises in our data that led us to modify our initial hypotheses and refine our understanding of the processes underlying our reported effects. Thus, we offer a narrative recount of the inductive process we followed during this series of studies. We report all measures, manipulations, and exclusions across all four studies.

2. Study 1

The goal of Study 1 was to examine the relationship between overconfidence and escalation of commitment. We hypothesized that overconfidence would be positively related to escalation of commitment.

2.1. Method

2.1.1. Participants and procedure

We had a two week window available for data collection in our laboratory and aimed to collect a minimum of 100 participants in that time. In total, 105 university students at Vrije Universiteit, Amsterdam (81% Dutch; 32 male; $M_{age} = 21.84$, $SD = 4.21$) participated in exchange for either €7 or course credits. Participants were told the experiment would involve testing general knowledge and decision-making.[1] Participants were scheduled to attend the experimental session in groups (2–5) and spent 5–10 min introducing themselves and describing the stage and focus of their university studies. They were informed that their group would reconvene after the individual components of the experiment had been completed, and at that stage they would be asked to explain and justify their investment decisions to their group. The purpose

[1] These data were collected as part of a masters student project that included additional questions and variables – 2D:4D, overclaiming (Paulhus, Harms, Bruce, & Lysy, 2003), and a rank ordering of personal values.