



# Impression management attenuates the effect of ability on trust in economic exchange

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Are competent actors still trusted when they promote themselves? The answer to this question could have far-reaching implications for understanding trust production in a variety of economic exchange settings in which ability and impression management play vital roles, from succeeding in one's job to excelling in the sales of goods and services. Much social science research assumes an unconditional positive impact of an actor's ability on the trust placed in that actor: in other words, competence breeds trust. In this report, however, we challenge this assumption. Across a series of experiments, we manipulated both the ability and the self-promotion of a trustee and measured the level of trust received. Employing both online laboratory studies ( $n = 5,606$ ) and a field experiment ( $n = 101,520$ ), we find that impression management tactics (i.e., self-promotion and intimidation) can substantially backfire, at least for those with high ability. An explanation for this effect is encapsulated in attribution theory, which argues that capable actors are held to higher standards in terms of how kind and honest they are expected to be. Consistent with our social attribution account, mediation analyses show that competence combined with self-promotion decreases the trustee's perceived benevolence and integrity and, in turn, the level of trust placed in that actor.

trust | impression management | ability | experiments

Trust—understood as the willingness to make oneself vulnerable to the actions of another party (1)—is indispensable for building and maintaining economic relationships (2, 3). Trust has been associated with a wide range of desirable outcomes, ranging from the career success of individuals (4) and the cooperation among group members (5) and organizations (6), to the wealth of nation states (7). As a result, scholars across the social sciences have endeavored to identify relevant antecedents of trust in economic exchange (8–10). One stream of this research zooms in on specific characteristics of trustees that constitute their trustworthiness: that is, their propensity not to exploit the trustor's trust (11, 12). A key dimension of trustees' trustworthiness is their ability (or competence): that is, their capacity to accomplish a specific task at hand effectively (1, 13, 14). For example, a prospective customer may perceive a vendor as high in ability if that vendor has experience in successfully accomplishing sales transactions, including providing high levels of customer service and delivering the product on time. It is commonly argued that competent trustees will enjoy high levels of trust because of increased confidence in their proficient performance (15, 16). Although ability and trust are undoubtedly distinct concepts (17), they are directly related. Expectations of “technically competent role performance ... involve some of the fundamental meanings of trust” (13), such that much theorizing has “considered ability an essential element of trust” (1). A metaanalysis of research on trust in job task contexts identified ability as one of the strongest predictors of trust (18). In contemporary research, the link between ability and trust therefore appears to be virtually taken for granted, to the extent that it is more often assumed than put to an empirical test.

However, we challenge the prevailing assumption that ability necessarily translates into increased trust in economic actors. We argue that prior trust research has treated ability as an uncontested asset and fact-like property, while failing to account for how ability is socially constructed as trustees present themselves during interactions (19). Especially in economic exchanges with strangers in which trust needs to be constructed swiftly (20, 21), the trustee's level of ability is largely unknown before it is communicated. To incorporate this self-presentational element, we bring theory on impression management (22–26)—and in particular the notion of self-promotion (27, 28)—to the literature on trust. This integrative approach allows us to demonstrate that ability may fail to foster trust when combined with self-promotion.

Symbolic interactionism (29) emphasizes how anticipated responses by other people influence actors' behaviors (30, 31). This theory draws attention to the important role

## Significance

It is often assumed that competent actors are trusted, but is this always true? In this report, we test the position that impression management decreases the amount of trust competent actors receive. Employing a variety of experimental paradigms and measures and confirming predictions based on attribution theory, we demonstrate that impression management can substantially backfire, at least for competent actors, and that this effect can be explained by decreases in perceived benevolence and integrity. Our findings make important contributions to the literatures on trust, status, and impression management.

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of impression management—that is, the processes by which actors attempt to control how others perceive them (32)—in how interactions unfold (22). Economic actors, such as commercial vendors or organizational employees, may adopt a variety of self-presentational techniques with the goal of being viewed in a positive light (26, 33). Here, we primarily focus on self-promotion, not only because it is directly related to managing ability perceptions but also because it is particularly common (34). In an exploratory study in which we asked participants to assess their own ability (35) and the extent to which they promote themselves (36), we found that self-promotion is a pervasive behavior among both high-ability individuals (mean = 2.716) and low-ability individuals [mean = 2.778,  $t(818) = 1.193$ ,  $P = 0.233$ , Cohen's  $d = 0.085$ ] (see *SI Appendix* for study details). By definition, self-promotion entails efforts to highlight one's own accomplishments, strengths, and talents (37). Prior research on the antecedents of self-promotion has highlighted the important effects of role ambiguity, job involvement, need for power, shyness, and emotional stability as relevant driving conditions (38, 39). While highlighting one's virtues can have favorable consequences, self-promotion may also have detrimental effects, because it is often regarded as a deviation from norms of modesty (28, 40, 41). In many societies, economic actors are expected to be selfless and modest (42, 43), and deviance from this norm risks social rejection (44, 45). Self-promotion is thus a double-edged sword, which can ultimately create more harm than good for the actor employing it.

We argue that self-promotion functions as an important contingency in the link between ability and trust. In the absence of self-promotion, we expect a strong positive effect of ability on trust, in line with prior literature (e.g., refs. 1, 18, 46, and 47). However, this positive effect will be substantially attenuated or even muted when trustees use self-promotional impression management. Accordingly, highly capable partners will receive less trust when they engage in self-promotion.

Attribution theory (48–50), which attempts to understand people's perceptions and judgments of other individuals and collectives, serves as our conceptual framework for explaining this difference in assessments of high- vs. low-ability actors applying self-promotion. In many settings, very capable evaluation targets are held to higher standards (51), with the expectation that they will act competently, displaying their knowledge of and conformity to social norms (52, 53). To the degree that high-ability actors engage in deviance and thus fail to meet the high expectations placed on them, they may garner criticism and even penalties (51, 54, 55). Highly capable actors “really ought to know better” than to ignore role-appropriate behaviors (56). In contrast, an exchange partner of lesser competence triggers lower expectations (53). Compared to norm violations committed by more competent actors, the deviating conduct of low-ability partners may be appraised as less problematic since it displays less deviation from expected behavior.

Because self-promotion is associated with deviance from social norms of modesty (28, 40, 41), high-ability (vs. low-ability) partners employing this impression management technique will be regarded as less trustworthy. If a partner is highly competent, self-promotion produces a discrepancy from the high standards to which capable actors are held and thus a violation of expectations that erodes the trust placed in them (51, 57). Less capable actors, in contrast, do not suffer from the “liability of competence” in the form of heightened expectations, and their deliberate attempts at being perceived in a more favorable light may in fact be viewed as understandable. This asymmetric pattern leads us to expect a negative interactive effect of ability and self-promotion on trust,

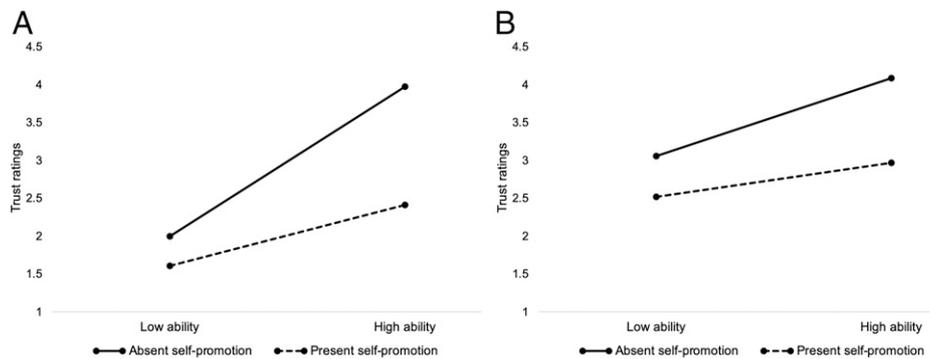
such that the positive effect of ability on trust will be considerably weaker in the presence (vs. absence) of self-promotion.

In particular, we anticipate a mediated-moderation pattern, whereby the interaction of ability and self-promotion will influence assessments of the trustee's character, which in turn shape trust. The trustworthiness literature addresses two distinct dimensions of character or goodwill that we suggest act as mediating mechanisms: benevolence and integrity (1, 58, 59). First, benevolence can be defined as the trustor's perception that the trustee has his or her best interests at heart (1). Benevolence assessments are often based on perceptions of the trustee's caring and warmth. Prior impression management research has shown that actors engaging in self-promotion tend to be rated lower on these traits (60), and we expect this benevolence penalty to be particularly pronounced for trustees high in ability. Second, integrity refers to the trustor's perception that the trustee is committed to an acceptable set of principles (1). Self-promoters are often viewed as manipulative, unsociable, and prompted by ulterior motives (61), resulting in perceptions of low integrity (62), particularly if the self-promoter is high in ability. Such detrimental consequences of self-promotion can occur even in settings in which economic motivations prevail, such as when customers are wary of vendors' persuasion attempts (63) or penalize businesses that lack in perceived sincerity (64).

Across seven studies, we show that impression management can substantially backfire, at least for those endowed with high ability. Detailed materials and methods are provided in *SI Appendix*. Study 1A demonstrates that self-promotion attenuates the positive effect of ability on trust ratings of an online vendor. Study 1B generalizes these results to an organizational setting in which trust ratings of a superordinate actor are examined. Study 2 replicates the interactive effect of ability and self-promotion in the context of entrusted down payments for an electronics product. Study 3, a field experiment among users of a global social media platform, demonstrates that present (vs. absent) self-promotion leads to fewer purchase attempts. Study 4 sheds light on the underlying mechanisms of our focal interactive effect, showing that the combination of ability and self-promotion decreases benevolence and integrity perceptions and, in turn, reduces trust. Study 5 generalizes this moderated mediation effect to another impression management tactic: intimidation. Study 6, a prediction market study, shows that a majority of participants bet a monetary endowment on our focal interactive effect and are able to correctly forecast the outcome of a replication study.

### **Study 1A: Self-Promotion Attenuates the Positive Effect of Ability on Trust Ratings in a Commercial Setting**

Study 1A begins our examination of the interactive effect of ability and self-promotion on trust. Similar to prior research on trust in economic exchange (e.g., refs. 65–67), the study focuses on buyer–seller relationships as an empirical context. Specifically, our vignette experiment is situated in an online shopping context, in which trust is known to play a central role (68–70). Participants were asked to imagine they were shopping for a new television and had found a relevant offer on the internet. We further told participants that the website appeared a bit suspicious, and it was unclear whether they could trust the vendor; thus, we suggested they consult the vendor's customer reviews. Participants were randomly assigned to one of four conditions



**Fig. 1.** Interactive effects of ability and self-promotion on trust, as found in studies 1A and 1B. Self-promotion attenuates the positive effect of ability on trust ratings in both a commercial setting (A) and an organizational setting (B).

in this 2 (ability: low, high)  $\times$  2 (self-promotion: absent, present) between-subjects experimental design.

To manipulate the vendor's ability, we used customer reviews (i.e., star levels and quantity of reviews), which have previously been established as a crucial and stable proxy of a trustee's ability. For example, a recent experimental study demonstrates that customer reviews are a strong indicator of vendor competence, to a much greater extent than, for example, guarantees (71). Indeed, in an independent pretest we conducted, two-thirds of participants indicated that star levels serve as the first indicator they consider when judging an online vendor's ability. In contrast, for benevolence and integrity, other indicators (such as likes and certifications from independent institutions) seemed to play a more important role when assessing these two seller characteristics. Moreover, employing both star levels and quantity of reviews in our manipulation of ability underscores the usefulness of customer reviews for ability judgments, because having a large quantity of online customer reviews makes vendors look more capable (72). Finally, customer reviews are known to be particularly relevant for ability perceptions of smaller and unknown vendors (73), such as those in our vignette.

To manipulate the vendor's self-promotion, we either did or did not present participants with a self-promoting message from the vendor. Manipulating self-promotion through communication (e.g., messages) of the actor being judged is a common approach in experimental impression management research. For example, self-promoting one's skills and accomplishments has been used to examine how job applicants and employees are evaluated by their employers (74, 75) and how vendors are perceived by buyers (76). Our manipulation of a vendor's self-promotion directly builds on these methods and presents a boasting message targeted at potential customers, which is a common and realistic occurrence in advertising and buyer-seller relationships (77). In the present self-promotion condition, the self-promotion message included the vendor saying, for example, that there had never been a single situation in which he did not deliver as promised. This message is certainly an inflated form of self-promotion that infringes on norms of modesty; nonetheless, it closely resembles previous conceptualizations of self-promotion as efforts to highlight one's own accomplishments, strengths, and talents (37). In the absent self-promotion condition, no message was displayed; instead, participants were asked to solve an anagram by rearranging a meaningless set of letters (HACIR) to form an actual word (i.e., CHAIR). This filler task, which has been widely used in previous research (78, 79), ensured that our experimental conditions were comparable in terms of cognitive load. Next, trust,

ability, and self-promotion were measured. An exemplary trust item is "I trust this seller" (80, 81), an exemplary ability item is "I feel very confident about the seller's skills" (35), and an exemplary self-promotion item is "This seller was bragging" (82). *SI Appendix, Supplementary Text* provides all measures. Finally, to assess the nature of the trust relationship (interpersonal vs. institutional), participants indicated whether they perceived the vendor as an individual or organization.

Manipulation checks revealed that our manipulations of ability and self-promotion were successful. Participants in the high-ability condition rated the vendor as having higher ability (mean = 3.399) than did those in the low-ability condition [mean = 1.921;  $t(594) = 13.641$ ,  $P < 0.001$ , Cohen's  $d = 1.118$ ]. Furthermore, participants in the present self-promotion condition rated the vendor as more self-promoting (mean = 6.451) than did those in the absent self-promotion condition [mean = 2.599,  $t(594) = 38.333$ ,  $P < 0.001$ , Cohen's  $d = 3.140$ ].

We next tested for the negative interactive effect of ability and self-promotion on trust. As predicted, an ANOVA with ability (low, high) and self-promotion (absent, present) as fixed factors and trust as the dependent variable revealed an interactive effect of ability and self-promotion on trust,  $F(1, 592) = 29.379$ ,  $P < 0.001$ , partial  $\eta^2 = 0.047$ . The difference in trust between low ability and high ability was considerably higher when the vendor did not self-promote (mean<sub>High ability, absent self-promotion</sub> = 3.977; mean<sub>Low ability, absent self-promotion</sub> = 1.997; post hoc Tukey honest significant difference [HSD] test:  $P < 0.001$ ) than when the vendor did self-promote (mean<sub>High ability, present self-promotion</sub> = 2.415; mean<sub>Low ability, present self-promotion</sub> = 1.606;  $P < 0.001$ ). Fig. 1A illustrates the interactive effect. Whether participants perceived the vendor as an individual (83.2%) or organization (16.8%) did not influence the interactive effect of ability and self-promotion on trust at statistically significant levels (three-way interaction:  $P = 0.173$ ), indicating that our focal effect holds in both interpersonal trust relationships between two individuals and institutional trust relationships between an individual and an organization. Our analysis also revealed main effects of ability on trust,  $F(1, 592) = 166.682$ ,  $P < 0.001$ , partial  $\eta^2 = 0.220$ , and self-promotion on trust,  $F(1, 592) = 81.676$ ,  $P < 0.001$ , partial  $\eta^2 = 0.121$ .

### Study 1B: Self-Promotion Attenuates the Positive Effect of Ability on Trust Ratings in an Organizational Setting

Study 1B had three objectives. The first objective was to generalize the negative interactive effect of ability and self-promotion on trust in an additional context adopted from previous

research (83): namely, an organizational setting between an employee and their boss. The second objective was to use a different ability manipulation (83) and a well-established trust scale (35) to increase the validity of our measures. The third objective was to rule out the possibility that our focal interactive effect of ability and self-promotion on trust is driven by a floor effect by carefully pretesting the trust ratings in the low ability and absent self-promotion condition and ensuring that these ratings can, in fact, further decrease.

We adapted the experimental procedures from previous research (83). Participants were instructed to picture themselves as a procurement manager of a defense and aerospace company and to read a work scenario involving a vice president of procurement, Jamie Smith, who had been recently hired to develop a cost-cutting policy for the company (83). We manipulated the vice president's ability by denoting this individual's industry experience in years. In the low- (high-) ability condition, the vice president had 0 (6) years of prior experience in the industry. Next, participants read an email sent by the vice president to all procurement managers providing information about a new cost-cutting policy (83). To manipulate the vice president's self-promotion, the email either did or did not include a self-promoting message. In the present self-promotion condition, the self-promotion message stated that the vice president is the best person for this job. In the absent self-promotion condition, no such message was displayed. Next, participants' trust in the vice president was measured. An exemplary (reversed) trust item was "If I had my way, I wouldn't let Jamie Smith have any influence over issues that are important to me" (35). *SI Appendix, Supplementary Text* provides all measures.

Manipulation checks (conducted in separate pretests) revealed that our manipulations of ability and self-promotion were successful. Participants in the high-ability condition rated the vice president as having higher ability (mean = 4.612) than did those in the low-ability condition [mean = 2.670;  $t(93) = 7.698$ ,  $P < 0.001$ , Cohen's  $d = 1.580$ ]. Furthermore, participants in the present self-promotion condition rated the vice president as more self-promoting (mean = 6.130) than did those in the absent self-promotion condition [mean = 2.840,  $t(98) = 11.969$ ,  $P < 0.001$ , Cohen's  $d = 2.394$ ].

In the main study, we next tested for the negative interactive effect of ability and self-promotion on trust. As predicted, an ANOVA with ability (low, high) and self-promotion (absent, present) as fixed factors and trust as the dependent variable revealed an interactive effect of ability and self-promotion on trust,  $F(1, 473) = 6.951$ ,  $P = 0.009$ , partial  $\eta^2 = 0.014$ . The difference in trust between low ability and high ability was higher when the vice president did not self-promote (mean<sub>High ability, absent self-promotion</sub> = 4.088; mean<sub>Low ability, absent self-promotion</sub> = 3.058; post hoc Tukey HSD test:  $P < 0.001$ ) than when the vice president did self-promote (mean<sub>High ability, present self-promotion</sub> = 2.969; mean<sub>Low ability, present self-promotion</sub> = 2.523;  $P = 0.025$ ). Fig. 1B illustrates the interactive effect. Finally, our analysis again revealed main effects of ability on trust,  $F(1, 473) = 44.301$ ,  $P < 0.001$ , partial  $\eta^2 = 0.086$ , and self-promotion on trust,  $F(1, 473) = 55.758$ ,  $P < 0.001$ , partial  $\eta^2 = 0.105$ .

### Study 2: Self-Promotion Attenuates the Positive Effect of Ability on Entrusted Down Payments

The objective of study 2 was to replicate the negative interactive effect of ability and self-promotion on trust while employing a

different dependent measure that allows for capturing greater variance than the one anchored on a seven-point scale, thereby further alleviating concerns that the focal interaction may be purely driven by a floor effect (84). Specifically, participants were instructed to imagine that they recently received a \$300 bonus, which they wanted to use as a down payment toward a new television. They were further told that the vendor expected them to make this down payment prior to shipping the television, and participants could choose their down payment amount between \$0 and \$300. Analogous to the previous study designs, participants were randomly assigned to one of four conditions in this 2 (ability: low, high)  $\times$  2 (self-promotion: absent, present) between-subjects experimental design. The manipulations of ability and self-promotion resembled those used in study 1A (see *SI Appendix, Supplementary Text* for a detailed description).

Results again revealed that our manipulations of ability and self-promotion were successful. Participants in the high-ability condition rated the vendor as having higher ability (mean = 3.143) than did those in the low-ability condition [mean = 1.861;  $t(1,606) = 20.297$ ,  $P < 0.001$ , Cohen's  $d = 1.012$ ]. Participants in the present self-promotion condition rated the vendor as more self-promoting (mean = 6.336) than did those in the absent self-promotion condition [mean = 2.917;  $t(1,606) = 53.517$ ,  $P < 0.001$ , Cohen's  $d = 2.670$ ].

Next, we again tested for the negative interactive effect of ability and self-promotion on trust. Due to highly skewed data for the dependent variable (down payment in dollars), we applied a logarithmic transformation before running the analysis (85). As predicted, an ANOVA with ability (low, high) and self-promotion (absent, present) as fixed factors and trust as the dependent variable revealed a negative interactive effect of ability and self-promotion on trust,  $F(1, 1,604) = 6.470$ ,  $P = 0.011$ , partial  $\eta^2 = 0.004$ . Results also showed that the difference in trust between low ability and high ability was higher when the vendor did not self-promote (mean<sub>High ability, absent self-promotion</sub> = 1.534; mean<sub>Low ability, absent self-promotion</sub> = 0.624; post hoc Tukey HSD test:  $P < 0.001$ ) than when the vendor did self-promote (mean<sub>High ability, present self-promotion</sub> = 1.104; mean<sub>Low ability, present self-promotion</sub> = 0.620;  $P < 0.001$ ), providing convergent evidence in support of the hypothesis that the positive effect of ability on trust is attenuated by self-promotion. As expected, the analysis also revealed main effects of ability on trust,  $F(1, 1,604) = 69.197$ ,  $P < 0.001$ , partial  $\eta^2 = 0.041$ , and self-promotion on trust,  $F(1, 1,604) = 6.712$ ,  $P = 0.010$ , partial  $\eta^2 = 0.004$ .

### Study 3: Self-Promotion Lowers Unique Click-Through Rate on Social Media

The objective of study 3 was to increase external validity in the testing of our hypothesis that self-promotion disproportionately hurts competent actors by conducting an online field experiment on a global social media platform (86). Specifically, we ran an advertisement on Facebook promoting a new coffee machine from a coffee gear website. The advertisement encouraged users to click on the advertisement link in order to buy the new coffee machine now. Clicking on the advertisement serves as an adequate behavioral measure of trust because: 1) the adoption of a new product from an internet seller requires some degree of trust in the remote merchant (87); 2) clicking on a social media ad makes participants vulnerable to potential data security threats, which are known to be a problem on social media platforms (88, 89); and 3) our call to action to "shop now"—unlike other calls to action (e.g., "learn more" or "contact us")—reflects

concrete purchase intentions (90). These three points are in line with the common definition of trust, which states that people trust others when they demonstrate the willingness to make themselves vulnerable to the actions of those others (1).

Using Facebook's advertising manager software tool, we followed pertinent recommendations and budgeted an advertising campaign to reach over 100,000 Facebook users (91). The users were assigned to one of two conditions in this single-factor (self-promotion: absent vs. present) between-subjects design, while holding constant the ability of a website featuring coffee gear at a high level and ensuring consistent audience, placement, and delivery settings (see *SI Appendix, Supplementary Text* for the advertisement shown to users and a detailed description of the advertisement specifications). In line with our theoretical account, we expected a lower unique click-through rate (i.e., the percentage of people who saw our advertisement and performed a unique click [all]) (92, 93) for the advertisement that depicts a self-promoting coffee gear website.

As predicted, the advertisement featuring the self-promoting website generated a lower unique click-through rate (0.056%) compared to the one featuring the nonself-promoting website [0.091%;  $\chi^2(1) = 3.989$ ;  $n = 101,520$ ;  $P = 0.046$ , 95% CI for odds ratio = (0.390, 0.995)] (see *SI Appendix, Supplementary Text* for a robustness check and additional metrics).

#### Study 4: Self-Promotion Attenuates the Positive Effect of Ability on Trust Via Benevolence and Integrity Perceptions

The objective of study 4 was to shed light on the underlying mechanisms explaining the interactive effect of ability and self-promotion on trust. We hypothesized that the negative interactive effect is explained by decreased levels of both benevolence and integrity; that is, high-ability trustees who self-promote (vs. do not self-promote) are viewed as lower in benevolence and integrity, which in turn affect levels of trust. Study 4 builds on the experimental design of study 1A while also introducing measures for perceived benevolence and integrity (see *SI Appendix, Supplementary Text* for a full report on how benevolence and integrity were measured). An exemplary benevolence item was "This seller has my interests in mind" (94), and an exemplary integrity item was "I thought this seller has integrity" (94).

Results again revealed that our manipulations of ability and self-promotion were successful. Participants in the high-ability condition rated the vendor as having higher ability (mean = 2.381) than did those in the low-ability condition [mean = 1.969;  $t(399) = 3.242$ ,  $P = 0.001$ , Cohen's  $d = 0.324$ ]. Participants in the present self-promotion condition rated the vendor as more self-promoting (mean = 6.179) than did those in the absent self-promotion condition [mean = 2.582;  $t(399) = 26.060$ ,  $P < 0.001$ , Cohen's  $d = 2.607$ ].

Turning to the proposed interactive effect, an ANOVA with ability (low, high) and self-promotion (absent, present) as fixed factors and trust as the dependent variable revealed an interactive effect of ability and self-promotion on trust,  $F(1, 397) = 6.555$ ,  $P = 0.011$ , partial  $\eta^2 = 0.016$ . Results also revealed that the difference in trust between low ability and high ability was higher when the vendor did not self-promote (mean<sub>High ability, absent self-promotion</sub> = 2.793; mean<sub>Low ability, absent self-promotion</sub> = 2.074; post hoc Tukey HSD test:  $P < 0.001$ ) than when the vendor did self-promote (mean<sub>High ability, present self-promotion</sub> = 1.662; mean<sub>Low ability, present self-promotion</sub> = 1.605;  $P = 0.988$ ). As expected, the analysis also revealed main effects of ability on

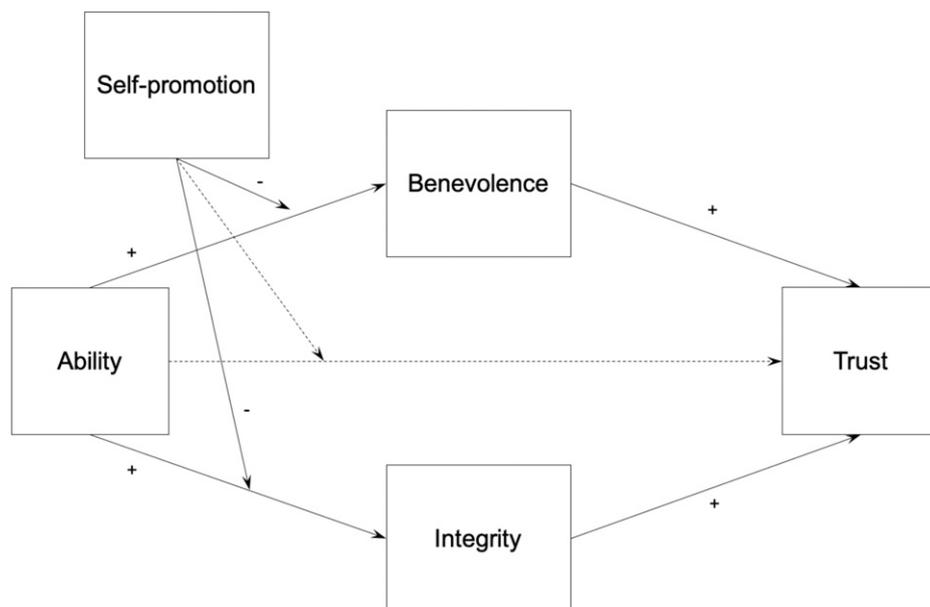
trust,  $F(1, 397) = 9.019$ ,  $P = 0.003$ , partial  $\eta^2 = 0.022$ , and self-promotion on trust,  $F(1, 397) = 38.331$ ,  $P < 0.001$ , partial  $\eta^2 = 0.088$ .

To test the underlying mechanisms of benevolence and integrity, we fitted a moderated-mediation model with two parallel mediators, using the standard PROCESS Model 8 script (95) with 5,000 bootstrap samples and 95% CIs. Ability was modeled as the independent variable, self-promotion as moderator, benevolence and integrity as mediators, and trust as the dependent variable. The moderated-mediation model revealed that ability was a positive predictor of both benevolence ( $B = 0.607$ ,  $SE = 0.189$ ,  $t = 3.212$ ,  $P = 0.001$ ) and integrity ( $B = 0.685$ ,  $SE = 0.188$ ,  $t = 3.644$ ,  $P < 0.001$ ) but not trust ( $P = 0.133$ ), suggesting full mediation (96). Both benevolence ( $B = 0.512$ ,  $SE = 0.046$ ,  $t = 11.181$ ,  $P < 0.001$ ) and integrity ( $B = 0.369$ ,  $SE = 0.046$ ,  $t = 8.002$ ,  $P < 0.001$ ) were positive predictors of trust, suggesting that benevolence and integrity are parallel mediators. Self-promotion was a negative moderator of both the link between ability and benevolence ( $B = -0.615$ ,  $SE = 0.260$ ,  $t = -2.366$ ,  $P = 0.019$ ) and the link between ability and integrity ( $B = -0.509$ ,  $SE = 0.259$ ,  $t = -1.969$ ,  $P = 0.050$ ) but not the link between ability and trust ( $P = 0.260$ ). In further support of moderated mediation, there was an indirect effect of ability through benevolence on trust conditional on self-promotion (Index =  $-0.315$ ,  $SE = 0.139$ , CI  $[-0.590; -0.048]$ ) and an indirect effect of ability through integrity on trust conditional on self-promotion (Index =  $-0.188$ ,  $SE = 0.104$ , CI  $[-0.408; -0.003]$ ). Fig. 2 illustrates the moderated-mediation model.

#### Study 5: Intimidation Also Attenuates the Positive Effect of Ability on Trust Via Benevolence and Integrity Perceptions

The objective of study 5 was to further extend our investigation by generalizing our theoretical account to another frequently employed impression management tactic: intimidation, whereby actors let others know that they can make things difficult for them (97). Similar to self-promotion, intimidation represents an assertive impression management tactic (98), is often considered counternormative (97), and has been linked to an actor's desire to be viewed as more capable (99). Given these similarities, we have reason to believe that our expectations concerning the role of self-promotion will also be applicable to intimidation. In particular, we expect that, like self-promotion, intimidation will attenuate the positive effect of ability on trust by decreasing perceived benevolence and integrity. Study 5 employed an experimental design similar to that of study 4 (see *SI Appendix, Supplementary Text* for a detailed description), except that we manipulated intimidation instead of self-promotion. For this purpose, a message from the vendor put pressure on the buyer to make their purchase quickly, stating that the product was in high demand and might be sold out soon, a well-known intimidation tactic in sales contexts (100) (see *SI Appendix, Supplementary Text* for a full report on how intimidation was manipulated).

Results revealed that our manipulations of ability and intimidation were successful ( $P$ s  $< 0.001$ ). Results also revealed an interactive effect of ability and intimidation on trust ( $P < 0.001$ ) as well as main effects of ability on trust ( $P < 0.001$ ) and intimidation on trust ( $P < 0.001$ ). Moderated-mediation analyses further revealed a highly similar role of intimidation to that reported under study 4 for self-promotion, suggesting moderated mediation by intimidation (see *SI Appendix, Supplementary Text* for detailed statistics).



**Fig. 2.** Moderated-mediation model of study 4. Benevolence and integrity both mediate the effect of ability on trust, and self-promotion represents a negative moderator of these mediation effects (dashed lines denote statistically nonsignificant effects).

### Study 6: A Prediction Market Forecasts that Self-Promotion Attenuates the Positive Effect of Ability on Trust

The objective of study 6 was to set up a prediction market (101, 102) in which participants predicted the trust other people would have in different trustees. As such, study 6 took a third-party perspective, in which participants were asked to provide a social judgment about our focal interactive effect. This approach follows prior work on social judgments, which argues that many people are reliable judges of other people's attitudes and behaviors (103). To create incentive compatibility, participants were endowed with a monetary incentive (in addition to their study compensation), which they were asked to use in a bet on four different television vendors. As in previous studies, these vendors were either high or low in their ability and either self-promoting or not. We asked participants to predict which of the four vendors would most likely be trusted by other consumers. Participants were also told that they must bet their full monetary endowment, but it was up to them whether they wanted to bet the full endowment on one vendor or divide up the money among multiple vendors. To determine participants' winnings, we then conducted a separate study replicating a design similar to study 1A, in which we asked a sample of other participants about their trust in the four vendors. Participants of the prediction market study were told that the amount of money that they bet on the most trusted vendor in the replication study would be doubled and the total would be paid to them as a bonus.

In this 2 (ability: low, high) × 2 (self-promotion: absent, present) repeated-measures within-subjects experimental design, participants were shown the customer reviews and, depending on condition, the self-promoting message of four different television vendors, in random order. After studying the four different vendors, participants were endowed with \$1 and were asked to place their bets on the four vendors (any fraction of \$1 per vendor but totaling \$1 across the four vendors).

We next tested whether prediction market participants correctly predicted the negative interactive effect of ability and self-promotion on trust. A repeated-measures ANOVA with ability

(low, high) and self-promotion (absent, present) as within-subject factors and monetary bets as the dependent variable revealed an interactive effect of ability and self-promotion on bets,  $F(1, 527) = 776.149, P < 0.001$ , partial  $\eta^2 = 0.596$ . Results also showed that the difference in bets between low ability and high ability was higher when the vendor did not self-promote (mean<sub>High ability, absent self-promotion</sub> = \$0.78; mean<sub>Low ability, absent self-promotion</sub> = \$0.03; paired-sampled *t* test:  $P < 0.001$ ) than when the vendor did self-promote (mean<sub>High ability, present self-promotion</sub> = \$0.17; mean<sub>Low ability, present self-promotion</sub> = \$0.02;  $P < 0.001$ ). As expected, the analysis also revealed main effects of ability on bets,  $F(1, 527) = 4122.565, P < 0.001$ , partial  $\eta^2 = 0.887$ , and self-promotion on bets,  $F(1, 527) = 781.326, P < 0.001$ , partial  $\eta^2 = 0.597$ .

We then conducted a replication of an experimental design similar to the one in study 1A on a separate sample of participants. Results again revealed a negative interactive effect of ability and self-promotion on trust ( $P < 0.001$ ) (see [SI Appendix, Supplementary Text](#) for detailed results of the replication study). Prediction market participants were then paid double the amount of their bet on the vendor with high ability and absent self-promotion.

### Discussion

This article addresses the question of just how pervasive the widely presumed positive effect of ability on trust truly is. Addressing this question has major implications for understanding trust production in a variety of economic exchanges in which actors' abilities play a prominent role. Across our seven experiments, we found convergent evidence for a negative interaction effect of ability and impression management on trust, such that the ability–trust relationship is impaired or even suppressed when trustees engage in self-promotion or intimidation. Our investigation contributes to several literatures and gives rise to important avenues for future research.

First and foremost, our inquiry contributes to research on the antecedents of trust in economic exchange. Contrary to the taken-for-granted assumption that the trustee's ability constitutes an unconditional driver of trust (1, 18, 46, 47), we demonstrate that this effect is more conditional than previously recognized. By

presenting impression management as a relevant boundary condition, we challenge the assumption that ability invariably increases trust. Specifically, our investigation acknowledges that a trustee's ability is not always readily apparent but often needs to be socially constructed through interaction. In this process, the trustor relies not only on objective indicators of ability but also on the subjective impressions they form of the trustee, which can be substantially shaped by impression management techniques employed by the trustee. Importantly, we argue that the trustee's level of ability and the appraisal of their impression management attempts are noninterdependent. Building on attribution theory, we suggest that self-promotion and intimidation can be viewed as forms of norm deviation that are considered particularly inappropriate when the deviant is highly competent. As a result, we propose a negative interaction effect, indicating that impression management reduces the trust that high-ability actors receive, whereas the impression-management-induced trust discount is less pronounced for low-ability actors. The irony of this pattern is striking in light of the fact that self-promotion is defined as seeking the attribution of competence (34). We show that this attribution seeking can substantially backfire when an actor's high level of competence is already apparent. This insight opens avenues for future research into additional moderators of the ability–trust effect, including other self-presentational techniques but also going beyond impression management. For example, it would be interesting to further examine whether, in repeated exchange settings, ability interacts with perceived long-term commitment, such that trust in high-ability trustees is highly sensitive to their anticipated (dis)loyalty (104).

Second, our investigation sheds light on the interplay among dimensions of trustworthiness. Prior work largely assumed that ability, benevolence, and integrity are positively interrelated, with one dimension having positive spillovers on the others and hence all three being highly congruent (80, 105). Our mediation analyses, however, reveal that ability (when paired with impression management) does not always have a significant association with benevolence and integrity. This finding is consistent with a recent study hinting at possible tensions between trustworthiness components (58). Future research on trustworthiness may build on this insight and extend the inquiry into the conditions that affect the degree of (non)correspondence between trustworthiness dimensions. Particularly useful would be a set-theoretic approach (106) to identify the antecedents and consequences of diverse ability, benevolence, and integrity configurations.

Third, because ability is closely tied to prestige (107, 108), our article also has implications for the literature on status. There is an ongoing debate on whether high-status (vs. low-status) actors tend to receive more favorable treatment (109). The traditional view, popularized by research on the Matthew effect (110), suggests that status comes with a variety of benefits for those who possess it (111). However, recent scholarship points to the possibility of status liabilities, such as when high-status actors are held to higher standards and thus are judged more harshly (112). Our investigation offers support for both positions. *Ceteris paribus*, highly able partners enjoy the advantage of superior trustworthiness assessments and consequently greater trust being placed in them; at the same time, however, our findings suggest that transgressions of social norms are punished to a greater extent when the deviant is high in ability. Our article thus contributes to the development of a more nuanced understanding of status benefits and liabilities (53) and serves as a springboard for future research uncovering contingencies other than impression management, ranging from

relationship tenure to power differences between trustor and trustee to the specific type of norm violation.

Fourth, our findings inform research on impression management. Today's meritocratic society appears to incentivize people to proactively present themselves and their competencies in the best possible light (113). Aggressively self-promoting one's strengths is often portrayed as a *sine qua non* in the quest for successful social and economic exchange in this type of environment (114). The viewpoint that actors engaging in self-promotion will fare better than those who do not appears to be widely accepted, especially within popular discourse, to the extent that practical guidelines for overcoming modesty concerns in favor of blatant bragging are hitting best seller lists (e.g., refs. 115 and 116). However, our empirical findings provide little support for this apparent enthusiasm surrounding self-promotion. Our studies point to a negative main effect on trust, lending further credence to more cautious scholarly assessments of the merits of self-promotion (37, 40). Interpreting our focal interaction term from a different perspective, we offer competence as an important boundary condition to the effectiveness of self-promotion (as well as intimidation). Clearly, more work is needed to understand the contingent effects of impression management techniques on a variety of outcomes (117) before any well-grounded practical recommendations for or against the use of impression management can be made.

Finally, this article makes an integrative contribution by bringing together two ever-expanding but largely separate bodies of social science research: those on trust and on impression management. Trust scholars have rarely adopted an impression management perspective (see ref. 118 for an exception). This is surprising because trustees are known to make substantial (conscious or unconscious) efforts to be perceived as trustworthy (119, 120); thus, impression management techniques are commonly encountered but infrequently studied. We therefore see significant potential for future research to follow up on our investigation and examine the complex relationships between impression management and trust building.

To conclude, in this article we contest the assumption that ability will always lead to trust. By embracing a symbolic interactionist approach and separating ability from how it is conveyed through impression management, we demonstrate that the relationship between ability and trust is more conditional than previously assumed. Even in meritocratic societies, highly competent actors may experience greater trust from their fellow citizens if they are humble and refrain from efforts to manipulate others' impressions of themselves.

## Materials and Methods

A series of experiments provides convergent support for a negative impact of two impression management tactics—self-promotion and intimidation—on the effect of ability on trust. Following pertinent recommendations for constructive replication (121), our experiments were situated in different contexts, employed a variety of manipulations and dependent measures, and included data collected in both online laboratory and field settings. Furthermore, we set up a prediction market in which participants bet a monetary endowment, increasing both validity and incentive compatibility. The research was approved by the Institutional Review Board of the University of Arizona. After reading an online disclosure form for research participation, consent was obtained from participants in the exploratory study and studies 1A, 1B, 2, 4, 5, and 6. Because of the aggregated nature of the data obtained in study 3 from Facebook, the Institutional Review Board provided a waiver of informed consent. Materials and data collection plans, including hypotheses and data exclusion criteria, were stored on the

Open Science Framework before data collection began. Sample sizes were either exploratorily determined or formally calculated based on previous studies' effect sizes (see *SI Appendix, Supplementary Text* for sample size calculations). Data and code are available for download on the same repository.

**Data Availability.** Experimental data have been deposited in the Open Science Framework, <https://osf.io/QMZCY/> (122).

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## **Supplementary Information for**

Impression management attenuates the effect of ability on trust in  
economic exchange

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### **This PDF file includes:**

Supplementary text

Figures S1 to S3

Tables S1 to S2

SI References

## Supplementary Text

This section describes the sample, experimental design, and procedure for each study. Table S1 provides an overview of the studies. The data and code for all studies can be accessed on the Open Science Framework (OSF): [https://osf.io/qmzcy/?view\\_only=c2312e364a1147e8be72898bbcf6f0b6](https://osf.io/qmzcy/?view_only=c2312e364a1147e8be72898bbcf6f0b6). The experimental design and procedure of each study summarized herein are provided as a convenient overview and illustration to readers. For exact materials, refer to the repository on the OSF.

### Exploratory study

**Participants.** Nine hundred and ninety-one participants ( $M_{\text{age}} = 41.316$ ; four participants did not report their age; 54.5% female) were recruited from an online consumer panel to respond to two temporally separated surveys, one of which assessed participants' self-reported ability and the other their self-promotion. One hundred seventy-one participants did not complete the second survey or provided insufficient information to match their responses from the second survey with the ones from the first survey, resulting in a final sample size of 820.

**Correlational design and procedure.** In the first survey, participants were instructed to tell us a little bit about themselves. Specifically, we asked them to indicate the degree to which they agree to six statements about their ability on five-point answer scales (1 = Strongly disagree, 5 = Strongly agree). The ability items were *I am very capable of performing my job*, *I am successful at the things I try to do*, *I have much knowledge about the work that needs to be done*, *I feel very confident about my skills*, *I have specialized capabilities that can increase my performance*, and *I am well qualified* (original items from 1; Cronbach's alpha = 0.898). Finally, participants were asked to state their gender (female = 1), age, and identification number given from the online consumer panel (for the purpose of matching participants' responses from both surveys). To prevent participants' ability responses from biasing their subsequent self-promotion responses, we temporally separated the assessment of both variables (2). Hence, the second survey was conducted three days after the completion of the first one. In the second survey, we recruited the same participants from the first survey and informed them about the new HIT via email. After three follow-up emails, we stopped data collection and merged the responses from both surveys

based on participants' identification numbers. In the second survey, participants were again instructed to tell us a little bit about themselves. Specifically, we asked them to indicate the degree to which they agreed to ten statements about their self-promoting behavior on five-point answer scales (1 = Strongly disagree, 5 = Strongly agree). The self-promotion items were *I play up the value of a positive event that I have taken credit for; I try to make a positive event that I am responsible for appear better than it actually is; I try to take responsibility for positive events, even when I am not solely responsible; I try to make a negative event that I am responsible for not appear as severe as it actually is to my supervisor; I try to let my supervisor think that I am responsible for the positive events that occur in my work group; I arrive at work early in order to look good in front of my supervisor; I work late at the office so that my supervisor will see me working late and think that I am a hard worker; I make my supervisor aware of my accomplishments; I agree with my immediate supervisor's major opinions outwardly even when we disagree inwardly; and I create the impression that I am a "good" person to my supervisor* (original items from 3; Cronbach's alpha = 0.870). Finally, participants were asked to state their gender (female = 1), age, and identification number given from the online consumer panel (for the purpose of matching participants' responses from both surveys).

**Results.** To assess the prevalence of self-promotion among both highly able and less able individuals, we calculated the median of ability (4.167) and performed a median split by assigning participants above the median to the more able group and those below the median to the less able group. The two groups did not differ significantly in their self-promoting behavior ( $M_{\text{High ability}} = 2.716$ ,  $SD = 0.783$  vs.  $M_{\text{Low ability}} = 2.778$ ,  $SD = 0.687$ ,  $t(818) = 1.193$ ,  $P = 0.233$ , Cohen's  $d = 0.085$ ). The correlation between ability and self-promotion was very low ( $r = -0.013$ ,  $P = 0.707$ ), indicating a high degree of discriminant validity between the two variables.

### **Study 1A**

**Participants.** Six hundred and three participants ( $M_{\text{age}} = 42.395$ ; five participants did not report their age; 47.2% female; five participants did not report their gender) were randomly assigned to one of four conditions (low ability & absent self-promotion, low ability & present self-promotion, high ability & absent self-promotion, or high ability & present self-promotion). Our data exclusion

criteria, which were stored on OSF prior to launching data collection, indicated that cases should be dropped if there was i) an incorrect response to our attention screener, *Please indicate that you pay attention to this study by choosing option “6”*, and/or ii) no response to the dependent measures *I trust this seller and I would be willing to buy the TV from this seller*. Seven participants met one or more exclusion criteria; their data were thus removed from further analyses, resulting in a final sample size of 596.

**Experimental design and procedure.** Study 1A employed a 2 (ability: low vs. high) × 2 (self-promotion: absent vs. present) between-subjects experimental design, in which we manipulated both the ability and the self-promotion of an online seller. The study materials and data collection plan were stored on OSF prior to launching the study and can be accessed here:

[https://osf.io/85e9p/?view\\_only=2609155f3d73462597c26f8e5ccc9ba2](https://osf.io/85e9p/?view_only=2609155f3d73462597c26f8e5ccc9ba2).

Participants received the following instructions: *“Suppose that you want to buy a new TV and you found a good offer on the internet. The website looks a bit suspicious and you don't know if you can trust the seller. Therefore, you decide to look at the customer reviews. In the following, you will see how previous customers have rated the seller. Please look at them carefully.”*

Participants were then randomly assigned to one of two ability conditions and shown reviews from previous customers (i.e., star levels and quantity of reviews) for the seller to whom they were assigned (see Fig. S1). In the low-ability condition, the star level was 2 out of 5 stars, and the customer reviews were skewed toward 1-star reviews. In the high ability condition, the star level was 4 out of 5 stars, and the customer reviews were skewed towards 5-star reviews. In an independent pre-test, we asked two hundred seventy-six participants *“how (they) usually evaluate whether an online seller is trustworthy or not”*. Specifically, they were asked to rank *“star rating scales”, “likes”, “hearts”, and “seals of independent institutions”* by importance when judging an online seller's i) *“ability, in the sense that they have the competence, skills, and knowledge to offer a high quality product or service”*; ii) *“benevolence, in the sense that they have my best interest at heart and want to do good for me”*; and iii) *“integrity, in the sense that they adhere to a set of standards and principles that I find acceptable and can identify with”*. 67.3% of participants indicated that star rating scales are the first indicator when judging an online seller's ability,

whereas significantly less participants did so for an online seller's benevolence (45.5%;  $Z = -7.722, P < 0.001$ ) and integrity (36.7%;  $Z = -10.807, P < 0.001$ ). In the main study, after participants were exposed to our ability manipulation, they were then randomly assigned to one of two self-promotion conditions. Participants in the present self-promotion condition read: "*After seeing the customer reviews, you decide to contact the seller directly. In the following you will see what the seller responded. Again, please read the message carefully and treat the situation as you would in real life.*" Participants then read a message from their seller: "*I have earned so much money that I do not need to scam people. There has not been a single situation where I did not deliver as promised. I am the best. Apart from that, I have never failed a single time in my entire life.*" In the absent self-promotion condition, participants were asked to solve an anagram as a filler task, which has been commonly used in previous research (4, 5). They were instructed as follows: "*Next, please solve the following anagram by rearranging the letters to form an actual word (e.g., KIBE --> BIKE). Write the solution in the textbox below. Note that there could be multiple solutions. Just enter the first solution that comes to your mind. Anagram to solve: HACIR.*" This filler task aimed to generate a comparable cognitive load in our experimental conditions. Participants then rated their trust in the seller and, for manipulation check purposes, the seller's ability and extent of self-promotion on seven-point answer scales (1 = strongly disagree; 7 = strongly agree). For trust, items were *I trust this seller* and *I would be willing to buy the TV from this seller* (items adapted from 6; Cronbach's alpha = 0.955). Previous research has extensively demonstrated that trust is a necessary condition to form purchase intentions (7, 8). In fact, the decision to purchase goods and services from an often unknown seller is in itself consistent with the very definition of trust, which is the willingness to make oneself vulnerable to the actions of others (9). Hence, given this strong association between trust and purchase intentions, it is not surprising that previous research has measured trust by asking people whether they would be willing to buy a product or service from a seller (10). In addition to analyzing the interactive effect of ability and self-promotion on the average of the two trust measures (as reported in the article), we also examined our focal effect on the two measures individually. Results revealed that the interactive effect also holds when *I trust this seller* ( $P <$

0.001) and *I would be willing to buy the TV from this seller* ( $P < 0.001$ ) are considered separately, demonstrating robust results. For ability, manipulation check items were *I feel very confident about this seller's skills*, *This seller is well qualified*, and *This seller's customer reviews were impressive* (items adapted from 1; Cronbach's alpha = 0.929). For self-promotion, items were *This seller was boasting* and *This seller was bragging* (items adapted from 11; Cronbach's alpha = 0.978). An attention screener item was inserted between these items; it read *Please indicate that you pay attention to this study by choosing option "6"* (12). Next, participants were asked to indicate whether they perceived the seller as an individual or organization. Finally, they were asked to state their gender (female = 1) and age. Neither of the demographic variables affected our focal interactive effect at statistically significant levels (three-way interactions:  $P_s > 0.05$ ).

### **Study 1B**

**Participants.** Five hundred and one participants ( $M_{\text{age}} = 39.219$ ; twenty-two participants did not report their age; 52.0% female; twenty-two participants did not report their gender) were randomly assigned to one of four conditions (low ability & absent self-promotion, low ability & present self-promotion, high ability & absent self-promotion, or high ability & present self-promotion). Our data exclusion criteria, which were stored on OSF prior to launching data collection, indicated that cases should be dropped if there was i) an incorrect response to our attention screener, *Please indicate that you pay attention to this study by choosing option "6"*, and/or ii) no response to the dependent measures *If I had my way, I wouldn't let Jamie Smith have any influence over issues that are important to me*; *I would be willing to let Jamie Smith have complete control over my future in this company*; *I really wish I had a good way to keep an eye on Jamie Smith*; and *I would be comfortable giving Jamie Smith a task or problem, which was critical to me, even if I could not monitor his actions*. Twenty-four participants met one or more exclusion criteria; their data were thus removed from further analyses, resulting in a final sample size of 477.

**Experimental design and procedure.** Study 1B employed a 2 (ability: low vs. high)  $\times$  2 (self-promotion: absent vs. present) between-subjects experimental design, in which we manipulated both the ability and the self-promotion of the vice president of procurement of a technology company. The study materials and data collection plan were stored on OSF prior to launching the

study and can be accessed here:

[https://osf.io/updhz/?view\\_only=c98d49e564844d7a915d7c0dd800d1e7](https://osf.io/updhz/?view_only=c98d49e564844d7a915d7c0dd800d1e7).

Participants received the following instructions: “*You will now read a scenario involving a work situation at NKIC Technologies, a defense and aerospace company in the U.S. Please picture yourself as a **plant procurement manager** at NKIC Technologies*”. They then read: “*NKIC Technologies is a defense and aerospace company with 15 manufacturing plants in the U.S. producing advanced electronic systems for aircraft manufacturers. The company was consistently profitable. However, recent market changes are forcing NKIC Technologies to try lower costs. Among other areas, the CEO thought there was an opportunity to save money in procurement. With the approval of the board of directors, the CEO hired NKIC Technologies' first corporate **Vice President of Procurement, Jamie Smith**. [manipulation shown] Jamie's appointment was announced through a press release on the NKIC Technologies website and an email sent by Corporate Human Resources. On Jamie's first day, the CEO stressed that the primary concern should be cutting costs and doing it as quickly as possible. Jamie studied the cost of materials in NKIC plants for the previous month, and considered how to inform the plant procurement managers of this work. The decision has been to email plant managers.*” This scenario was adopted from previous research (13). To manipulate the ability of the vice president, participants were randomly assigned to one of two ability conditions and shown the number of years of industry experience the vice president had. In the low ability condition, the scenario included the sentence “**Jamie has 0 out of the 10 years of industry experience required for this position**”. In the high ability condition, the scenario included the sentence “**Jamie has 6 out of the 10 years of industry experience required for this position**”. This ability manipulation was more focused than the one used in previous research (13) in that it omitted certain pieces of information (e.g., whether the vice president graduated from the Massachusetts Institute of Technology) that might manipulate factors other than ability (e.g., reputation), and focused on industry experience only. As a manipulation check, we conducted a separate pre-test, with one hundred one participants from the same online consumer panel, in which we randomly assigned participants to either the low-ability condition or high-ability condition and asked them to rate the

vice president's ability on a seven-point answer scale (1 = strongly disagree; 7 = strongly agree). Ability items were *Jamie Smith is very capable of performing his job*, *Jamie Smith is known to be successful at the things he tries to do*, *Jamie Smith has much knowledge about the work that needs to be done*, *I feel very confident about Jamie Smith's skills*, *Jamie Smith has specialized capabilities that can increase our performance*, and *Jamie Smith is well qualified* (items adapted from 1; Cronbach's alpha = 0.970). In the main study, after being exposed to the ability manipulation, participants read an email sent "To: Plant Procurement Managers" "From: Jamie Smith, Corporate Vice President of Procurement" with "Subject: New cost-cutting policy". The email read as follows: "Dear all, NKIC Technologies is in need of a new cost-cutting policy. My task is to develop a policy as quickly as possible. I have now studied the cost of materials in NKIC plants for the previous month. In the next two weeks, let's hear everybody's take on the cost-cutting policy. Developing a new policy is of utmost importance to our continued competitiveness. Our markets are changing rapidly and we need to respond quickly and effectively. Sincerely, Jamie Smith Corporate Vice President of Procurement" (13). To manipulate the self-promotion of the vice president, participants were randomly assigned to one of two self-promotion conditions in which they either saw or did not see a self-promoting message. In the present self-promotion condition, the email included the following additional message by the vice president: "I am the best person for this job. I am truly an expert at everything I do. I have always outperformed each and everyone in my environment. I am a blessing for this company". In the absent self-promotion condition, this additional message was not included. As a manipulation check, we conducted another pre-test with one hundred two participants from the same online consumer panel in which we randomly assigned participants to either the absent self-promotion condition or present self-promotion condition and asked them to rate the vice president's self-promotion on a seven-point answer scale (1 = strongly disagree; 7 = strongly agree). Self-promotion items were *Jamie Smith is boasting* and *Jamie Smith is bragging* (items adapted from 11; Cronbach's alpha = 0.975). In the main study, after being exposed to the self-promotion manipulation, participants then rated their trust in the vice president on a seven-point answer scale (1 = strongly disagree; 7 = strongly agree). Trust items were *If I had my way, I wouldn't let Jamie Smith have any influence over*

*issues that are important to me; I would be willing to let Jamie Smith have complete control over my future in this company; I really wish I had a good way to keep an eye on Jamie Smith; and I would be comfortable giving Jamie Smith a task or problem, which was critical to me, even if I could not monitor his actions* (items adapted from 1; Cronbach's alpha = 0.821). An attention screener item was inserted between these items; it read *Please indicate that you pay attention to this study by choosing option "6"* (12). Finally, participants were asked to state their gender (female = 1) and age. Neither of the demographic variables affected our focal interactive effect at statistically significant levels (three-way interactions:  $P_s > 0.05$ ).

## **Study 2**

**Participants.** One thousand six hundred and sixty-six participants ( $M_{\text{age}} = 40.280$ ; sixty-one participants did not report their age; 56.0% female; sixty participants did not report their gender) were randomly assigned to one of four conditions (low ability & absent self-promotion, low ability & present self-promotion, high ability & absent self-promotion, or high ability & present self-promotion). In Study 2, we opted for a relatively large sample size to ensure that the moderator study would not be underpowered (14, 15) and because—compared to Study 1A and 1B's perceptual trust ratings—Study 2 employed a hypothetical down payment from an expected monetary bonus. Based on our own careful piloting, we expected a relative attenuation of the main effect in the present self-promotion condition, and for this reason we decided to recruit a large sample of 1,605 participants, adhering to pertinent recommendations (16). Deviations from this sample size were entirely due to the data collection platform's software algorithm (i.e., CloudResearch) and were outside our control. To meet CloudResearch's sample size limits (1,000 participants according to their HyperBatch rules) and budgetary constraints, we collected the full sample in two batches (803 participants in a first batch and 802 participants in a second batch). For the second batch, we asked CloudResearch to exclude individuals who had participated in the first batch. Data analyses were performed only after completion of the second batch. Our data exclusion criteria excluded cases if participants provided no response to the dependent measure, *How much of your bonus do you send to the seller in advance?* Fifty-eight participants did not respond to the dependent measure; their data were thus removed from further

analyses, resulting in a final sample size of 1,608. Further, several participants from the final sample of 1,608 failed to correctly respond to the comprehension questions (*If you decide not to buy the TV, what happens to the TV?* [answer choices: *The seller keeps the TV; You get the TV*]; *If you decide to buy the TV the seller does not ship the TV to you, what is your outcome?* [answer choices: *You save your bonus; You spend (part of) your bonus but don't get the TV; You get the TV*]), and/or the attention check (*Please indicate that you pay attention to this study by choosing option "6"*). As a robustness check, we also calculated results for our focal interactive effect while excluding those participants that incorrectly answered none ( $P = 0.024$ ), at most one ( $P = 0.020$ ), or at most two ( $P = 0.011$ ) of the comprehension or attention questions, revealing robust results.

**Experimental design and procedure.** Study 2 employed a 2 (ability: low vs. high)  $\times$  2 (self-promotion: absent vs. present) between-subjects experimental design, in which we again manipulated both the ability and the self-promotion of an online seller. The study materials and data collection plan were stored on OSF prior to launching the study and can be accessed here: [https://osf.io/7yzrw/?view\\_only=448eb7b84bca46f291446a1b1bc7224a](https://osf.io/7yzrw/?view_only=448eb7b84bca46f291446a1b1bc7224a).

Participants were first instructed as follows: "*Suppose that you recently received a \$300 dollar bonus which you would like to use to buy a new TV. Fortunately, you found a seller that offers a TV you like for \$300. After a short internet search, you figure out that other sellers offer the same TV for \$100 more. You would get a TV worth \$400 for just \$300. Therefore, the TV has a value of \$400 to you personally. There is only one catch: This seller expects you to pay (part of) the \$300 in advance before shipping the TV to you. However, you can decide how much money you want to send to the seller in advance. So here are your options: You can either ... 1. ... buy the TV and send (part of) your bonus to the seller or 2. ... don't buy the TV and save your bonus. If you decide to buy the TV, here are the seller's options: The seller can either: 1) ship the TV to you as promised or 2) not ship the TV to you and scam you.*" A decision tree was shown to help participants understand their choices along with their potential consequences (see Fig. S2). Participants were then asked to answer the comprehension check questions (reported above). Participants were then told: "*Before you make a decision to buy the TV or not, you look at the customer reviews of this seller. In the following, you will see how previous customers have rated*

*the seller. Please look at them carefully and try to evaluate the seller's abilities.*" Participants were then shown customer reviews (i.e., star levels and quantity of reviews) similar to those of Study 1A. Next, in the present self-promotion condition, participants read a message from their seller, which was the same message reported under Study 1A: *"I have earned so much money that I do not need to scam people. There has not been a single situation where I did not deliver as promised. I am the best. Apart from that, I have never failed a single time in my entire life."* In the absent self-promotion condition, participants waited for 15 seconds. Next, participants read the following instructions and responded to our dependent measure: *"After you have familiarized yourself with the seller, please make a decision about whether you want to buy the TV or not. Remember that the seller expects you to pay (part of) the \$300 in advance before shipping the TV to you. With this in mind, please enter a dollar amount between \$1 and \$300 that you send to the seller in advance if you want to buy the TV. If you do not want to buy the TV, please enter \$0. How much of your bonus do you send to the seller in advance? (PUT NUMBER ONLY, NO DOLLAR SIGN)."* Finally, participants responded to the same measures of ability (items adapted from 1; Cronbach's alpha = 0.925) and self-promotion (items adapted from 11; Cronbach's alpha = 0.964), an attention check question, and demographics as reported under Study 1A. Gender (female = 1), age, and ethnicity (white = 1) did not affect our focal interactive effect at statistically significant levels (three-way interactions:  $P_s > 0.05$ ).

### **Study 3**

**Participants.** A total of 101,520 participants were shown one of two versions of an ad (self-promotion conditions: absent, present), while ability was kept constant at high levels.

**Experimental design and procedure.** Following pertinent recommendations for using Facebook Ad Manager's Split Test function (17), we assessed two coffee machine advertisements in a single-factor (self-promotion: absent vs. present) between-subjects design, holding constant all other variables, such as audience, placement, delivery settings, and advertiser ability. Table S2 lists the ad specifications. The study materials and data collection plan were stored on OSF prior to launching the study and can be accessed here:

[https://osf.io/hcxwy/?view\\_only=61a796baa9344edaaa8b2b97b7db6c08](https://osf.io/hcxwy/?view_only=61a796baa9344edaaa8b2b97b7db6c08).

Both advertisements featured information about a new coffee machine sold by a coffee gear website (18). Fig. S3 depicts the social media advertisements. The advertisements also included a call to action (“SHOP NOW” button underneath the image). The coffee gear website’s ability was kept constant across the two advertisements by showing identical customer reviews in the primary text above the image in both conditions (“392 customers rated the product 4 out of 5 stars; *They build a machine able to brew great coffee*”). Both advertisements depicted images of a new coffee machine. The only difference between the two advertisements was that the present self-promotion one included a self-promoting message (“*The BEST of the best on the whole planet! Pay homage to OUR GREATNESS. – Coffee Gear-Team*”) in the image, while the absent self-promotion one did not. A separate pre-test ( $n = 104$ ; four participants were excluded from the data analysis because they did not pass the attention check: *Please indicate that you pay attention to this study by choosing option “2”*) established that the two advertisements differed in terms of self-promotion of the coffee gear website (*This seller wrote a **personal message** (in the image) in which he was bragging about himself*; five-point answer scale;  $t(98) = 3.709$ ,  $P < 0.001$ , Cohen’s  $d = 0.742$ ) but not in terms of perceived ability of the coffee gear website (*This seller’s **customer reviews** (star ratings and text above the image) imply that he has high abilities*; five-point answer scale;  $t(98) = 0.620$ ,  $P = 0.536$ , Cohen’s  $d = 0.124$ ). When participants clicked on our advertisements on Facebook, they were directed to a separate website with a unique domain ([www.coffeegearforyou.com](http://www.coffeegearforyou.com)), which we purchased for the purpose of this study. The website debriefed participants that “*the ad is part of a research study about online click behavior*” and offered some alternative coffee machines that participants might like if they were “*still interested in buying a coffee machine like the one in our ad*”.

Facebook users were unaware that a study was being conducted and that their click behavior was being observed, fulfilling the conditions for both a field experiment and Facebook’s split testing (19). We treated Facebook’s unique click-through rate [all] (i.e., the number of people who performed a click [all] divided by the number of people who saw our ads at least once; 20) as the primary dependent variable because it treats users who encountered the same ad more than once as a single observation, following the procedures of previous research (18, 21). Unique

click-through rate [all] is regarded as a useful measure by advertising professionals, accounting for reach of an advertisement and more user actions taken compared to other Facebook metrics (22, 23). In addition to the Chi-Square test reported in the main text, we conducted a binary logistic regression with self-promotion as the independent variable and ad clicks as the dependent variable to test the robustness of our results. Based on odds ratio analysis, participants clicked the self-promoting ad less frequently than the non-self-promoting ad ( $b = -0.473$ ,  $SE = 0.239$ ,  $P = 0.048$ , CI 95% for odds ratio = [0.390, 0.995]). Besides our focal dependent measure, Facebook provides other metrics for which similar results were obtained: i) link click-through rate (i.e., the percentage of times people saw our ad and performed a link click;  $\chi^2(1) = 3.404$ ,  $P = 0.065$ , CI 95% for odds ratio = [0.363, 1.036]); ii) unique link click-through rate (i.e., the percentage of people who saw our ad and performed a link click;  $\chi^2(1) = 3.571$ ,  $P = 0.059$ , CI 95% for odds ratio = [0.358, 1.024]); iii) outbound click-through rate (i.e., the percentage of times people saw our ad and performed an outbound click;  $\chi^2(1) = 3.404$ ,  $P = 0.065$ , CI 95% for odds ratio = [0.363, 1.036]); and iv) unique outbound click-through rate (i.e., the percentage of people who saw our ad and performed an outbound click;  $\chi^2(1) = 3.571$ ,  $P = 0.059$ , CI 95% for odds ratio = [0.358, 1.024]).

#### **Study 4**

**Participants.** Four hundred and forty-two participants ( $M_{\text{age}} = 40.925$ , forty-one participants did not report their age; 52.1% female, forty-one participants did not report their gender) were randomly assigned to one of four conditions (low ability & absent self-promotion, low ability & present self-promotion, high ability & absent self-promotion, or high ability & present self-promotion). Our data exclusion criteria excluded cases (1) if there was an incorrect response to our first attention screener (*In this study, we want to know your perceptions about online shopping. The survey is also going to ask you to make a purchase decision. There will be some questions that will be checking if you are paying attention. Please read carefully, because if you miss one of the reading check questions, you may not receive credit for completing the study. To show us that you are reading the instructions, please ignore the math problem below this and instead type "I read the instructions" (without the quotation marks) into the text box*); (2) if there

was an incorrect response to our second attention screener (*Please indicate that you are paying attention to this study by choosing option “6”*); and/or (3) if there was no response to the dependent measures *I trust this seller* and *I would be willing to buy the TV from this seller*. Forty-one participants met one or more exclusion criteria; their data were therefore removed from further analyses, resulting in a final sample size of 401.

**Experimental design and procedure.** Study 4 employed a 2 (ability: low vs. high) × 2 (self-promotion: absent vs. present) between-subjects experimental design in which we manipulated both the ability and the self-promotion of an online seller. The study materials and data collection plan were stored on OSF prior to launching the study and can be accessed here:

[https://osf.io/9ufms/?view\\_only=b765e7f34a9c41a590679ef5eb4839af](https://osf.io/9ufms/?view_only=b765e7f34a9c41a590679ef5eb4839af).

Participants were first instructed: *“Suppose that you want to buy a new TV and you found a good offer on the internet. The website looks a bit suspicious and you don’t know if you can trust the seller. Therefore, you decide to look at the customer reviews. In the following, you will see how previous customers have rated the seller. Please look at them carefully and try to evaluate the seller’s abilities.”* Participants were also shown similar customer reviews (i.e., star levels and quantity of reviews) to those reported under Study 1A and, depending on their self-promotion condition, either were or were not shown a message from the seller. After participants were exposed to our manipulations, we included a text-entry question, which asked participants to write about their impressions of the seller. We asked participants: *In one or two sentences, please tell us what impression you have of this seller. What were you thinking when you familiarized yourself with this seller?* Participants then rated the same items on trust (items adapted from 6; Cronbach’s alpha = 0.940), ability (items adapted from 1; Cronbach’s alpha = 0.889), and self-promotion (items adapted from 11; Cronbach’s alpha = 0.969) as reported under Study 1A. The same attention check question as reported under Study 1A was asked as well. In addition, participants rated items for integrity and benevolence on seven-point answer scales (1 = strongly disagree; 7 = strongly agree). For integrity, items were *This seller tells the truth*, *This seller is honest*, and *I thought this seller has integrity* (items adapted from 24; Cronbach’s alpha = 0.955). For benevolence, items were *This seller puts my interests first*, *This seller has my*

*interests in mind*, and *This seller wants to understand my needs and preferences* (items adapted from 24; Cronbach's alpha = 0.964). Finally, participants indicated their gender (female = 1), age, and ethnicity (white = 1). These demographic variables did not affect our focal interactive effect at statistically significant levels (three-way interactions:  $P_s > 0.05$ ).

## **Study 5**

**Participants.** Four hundred and fifty-seven participants ( $M_{\text{age}} = 41.871$ ; fifty-five participants did not report their age; 54.5% female; fifty-five participants did not report their gender) were randomly assigned to one of four conditions (low ability & absent self-promotion, low ability & present self-promotion, high ability & absent self-promotion, or high ability & present self-promotion). Our data exclusion criteria excluded cases (1) if there was an incorrect response to our first attention screener (*In this study, we want to know your perceptions about online shopping. The survey is also going to ask you to make a purchase decision. There will be some questions that will be checking if you are paying attention. Please read carefully, because if you miss one of the reading check questions, you may not receive credit for completing the study. To show us that you are reading the instructions, please ignore the math problem below this and instead type "I read the instructions" (without the quotation marks) into the text box*); (2) if there was an incorrect response to our second attention screener (*Please indicate that you pay attention to this study by choosing option "6"*); and/or (3) if there was no response to the dependent measures *I trust this seller* and *I would be willing to buy the TV from this seller*. Fifty-eight participants met one or more exclusion criteria; their data were therefore removed from further analyses, resulting in a final sample size of 399.

**Experimental design and procedure.** Study 5 employed a 2 (ability: low vs. high)  $\times$  2 (intimidation: absent vs. present) between-subjects experimental design in which we manipulated both the ability and the intimidation of an online seller. The study materials and data collection plan were stored on OSF prior to launching the study and can be accessed here:

[https://osf.io/w4m96/?view\\_only=d17e8c18f1ef43628717f5ccb7dc28ed](https://osf.io/w4m96/?view_only=d17e8c18f1ef43628717f5ccb7dc28ed).

Participants received instructions that resembled those reported under Study 4, except that we manipulated intimidation instead of self-promotion. In the present intimidation condition,

participants read a message from their seller: *Please don't waste my time, I am a highly demanded seller. You better hurry up and purchase the TV quickly. Otherwise I will sell it to another, more qualified buyer very soon and you will be left empty-handed.* In the absent intimidation condition, participants waited for 15 seconds. After participants were exposed to our manipulations, we included a text-entry question as reported under Study 4. Participants then rated the same items on trust (items adapted from 6; Cronbach's alpha = 0.926), ability (items adapted from 1; Cronbach's alpha = 0.916), integrity (items adapted from 24; Cronbach's alpha = 0.941), and benevolence (items adapted from 24; Cronbach's alpha = 0.969) as reported under Study 4. Participants also rated the extent of intimidation by the seller on seven-point answer scales (1 = strongly disagree; 7 = strongly agree). Items were *This seller threatened me* and *I feel intimidated by this seller* (items adapted from 25; Cronbach's alpha = 0.644). Finally, participants indicated their gender (female = 1), age, and ethnicity (white = 1). Gender had a negative moderating effect on the interactive effect of ability and self-promotion on trust (coefficient = -1.101,  $P = 0.011$ ). Age and ethnicity did not affect our focal interactive effect at statistically significant levels (three-way interactions:  $P_s > 0.05$ ).

**Results.** Results revealed that our manipulations of ability and intimidation were successful. Participants in the high ability condition rated the seller as having higher ability ( $M = 2.110$ ) than did those in the low ability condition ( $M = 1.564$ ;  $t(397) = 4.828$ ,  $P < 0.001$ , Cohen's  $d = 0.483$ ). Participants in the present intimidation condition rated the seller as more intimidating ( $M = 3.800$ ) than did those in the absent intimidation condition ( $M = 1.813$ ;  $t(397) = 13.520$ ,  $P < 0.001$ , Cohen's  $d = 1.356$ ).

We next tested for the negative interactive effect of ability and intimidation on trust. As predicted, a two-way analysis of variance with ability (low, high) and intimidation (absent, present) as fixed factors and trust as the dependent variable revealed an interactive effect of ability and intimidation on trust,  $F(1, 395) = 28.589$ ,  $P < 0.001$ , partial  $\eta^2 = 0.067$ . Results also revealed that the difference in trust between low ability and high ability was higher when the seller was not intimidating ( $M_{High\ ability, absent\ intimidation} = 2.870$ ;  $M_{Low\ ability, absent\ intimidation} = 1.687$ ; post-hoc Tukey HSD test:  $P < 0.001$ ) than when the seller was intimidating ( $M_{High\ ability, present\ intimidation} = 1.386$ ;  $M_{Low\ ability,$

*present intimidation* = 1.355;  $P = 0.997$ ). As expected, the analysis also revealed main effects of ability on trust,  $F(1, 395) = 31.704$ ,  $P < 0.001$ , partial  $\eta^2 = 0.074$ , and intimidation on trust,  $F(1, 395) = 70.975$ ,  $P < 0.001$ , partial  $\eta^2 = 0.152$ .

To test the underlying mechanisms of benevolence and integrity, we then fitted a moderated-mediation model with two parallel mediators, using the standard PROCESS Model 8 script (26) with 5,000 bootstrap samples and 95% confidence intervals, as well as with ability as a between-subjects independent variable, intimidation as moderator, benevolence and integrity as mediators, and trust as the dependent variable. The moderated-mediation model revealed that ability was a positive predictor of benevolence ( $B = 1.106$ ,  $SE = 0.151$ ,  $t = 7.318$ ,  $P < 0.001$ ), integrity ( $B = 1.193$ ,  $SE = 0.169$ ,  $t = 7.066$ ,  $P < 0.001$ ), and trust ( $B = 0.186$ ,  $SE = 0.095$ ,  $t = 1.968$ ,  $P = 0.050$ ), suggesting partial mediation (27). Both benevolence ( $B = 0.668$ ,  $SE = 0.043$ ,  $t = 15.440$ ,  $P < 0.001$ ) and integrity ( $B = 0.216$ ,  $SE = 0.039$ ,  $t = 5.568$ ,  $P < 0.001$ ) were positive predictors of trust, suggesting that benevolence and integrity are parallel mediators. Intimidation was a negative moderator of both the link between ability and benevolence ( $B = -1.188$ ,  $SE = 0.207$ ,  $t = -5.731$ ,  $P < 0.001$ ) and the link between ability and integrity ( $B = -1.203$ ,  $SE = 0.232$ ,  $t = -5.195$ ,  $P < 0.001$ ) but not the link between ability and trust ( $B = -0.099$ ,  $SE = 0.126$ ,  $t = -0.781$ ,  $P = 0.435$ ), suggesting moderated mediation. In support of moderated mediation, there was an indirect effect of ability through benevolence on trust conditional on intimidation (Index = -0.794,  $SE = 0.160$ , CI [-1.125; -0.498]) and an indirect effect of ability through integrity on trust conditional on intimidation (Index = -0.260,  $SE = 0.076$ , CI [-0.424; -0.128]).

## Study 6

**Participants of the prediction market.** Five hundred and thirty-eight participants ( $M_{\text{age}} = 39.236$ ; thirteen participants did not report their age; 54.5% female; thirteen participants did not report their gender) were shown four television sellers in random order (low ability & absent self-promotion, low ability & present self-promotion, high ability & absent self-promotion, or high ability & present self-promotion). Following recommendations regarding sample size requirements for estimating interactive effects (28), an a priori power analysis in G\*Power (29) indicated that in

order to detect an interaction term of medium effect size ( $f^2 = 0.015$ ) at  $P < 0.050$  with 80% power, a sample size of 526 was required. Ten participants did not place bets; their data were therefore removed from further analyses, resulting in a final sample size of 528.

**Experimental design and procedure of the prediction market.** The prediction market of Study 6 employed a 2 (ability: low vs. high)  $\times$  2 (self-promotion: absent vs. present) repeated-measures within-subjects experimental design in which we manipulated both the ability and the self-promotion of an online seller. The study materials and data collection plan were stored on OSF prior to launching the study and can be accessed here:

[https://osf.io/hq9ec/?view\\_only=6dd5dbea563e4a8093ef270e66fd9543](https://osf.io/hq9ec/?view_only=6dd5dbea563e4a8093ef270e66fd9543).

Participants were first instructed: *“In this study, we would like to ask you to get familiar with four different online sellers for the same TV and predict which of the four sellers would most likely be trusted to do business with **by other consumers**. In the following, we will show you the customer ratings for all four sellers. Two of them also sent a personal message. Please look at the customer ratings and messages carefully and answer the corresponding questions.”* Next, in random order, participants saw the customer reviews and, depending on condition, the self-promotion message from the seller (similar to those reported under Study 1A). Then, participants answered several comprehension questions: (1) *[Seller’s name] has high customer ratings (Yes/No)* and *[Seller’s name] wrote a personal message in which he was bragging about himself (Yes/No)*. As a robustness check, we also calculated results for our focal interactive effect while excluding those participants that incorrectly answered either one ( $P < 0.001$ ) or both ( $P < 0.001$ ) comprehension questions, revealing robust results. Next, we instructed participants further: *“Now, we would like to ask you to predict which of the four sellers would most likely be trusted **by other consumers**. In other words, we would like to know **your prediction of how other people would deal with these four sellers**. To do so, we will give you \$1 (on top of your monetary compensation) that you can use to bet on one or more sellers. Note that you must bet the full \$1, but it is up to you whether you want to bet the full \$1 on one seller or divide up the money among multiple sellers. To determine your winnings, we will conduct a separate study in which we ask consumers about their trust in the four sellers. The amount of money that you bet on the most*

trusted seller will be **doubled** and paid to you as a bonus.” Participants then read: “**You have now received an additional \$1 from us to bid.**” Two examples were provided to participants:

“**Hypothetical example 1:** You bet \$0.50 on X's Electronics, \$0.25 each on Y's Electronics and Z's Electronics, and nothing (\$0) on W's Electronics, and X's Electronics receives the highest trust score from other consumers. Then, your bonus payout will be \$1.00.”

“**Hypothetical example 2:** You bet \$1.00 on X's Electronics, and nothing (\$0) on Y's Electronics, Z's Electronics, and W's Electronics, and X's Electronics receives the highest trust score from other consumers. Then, your bonus payout will be \$2.00.”

Participants were then told: “Please place your bets. You can bet on a single or multiple sellers as long as your total adds up to \$1. Please enter your bets in decimal form without dollar sign (e.g., 0.50).” Finally, data on gender (female = 1) and age were collected. A separate repeated-measures analysis of variance with ability (low, high) and self-promotion (absent, present) as within-subject factors, trust as the dependent variable, and female and age as covariates revealed no qualitative changes in our focal interactive effect ( $P < 0.001$ ). Also, gender (female = 1) was a statistically significant covariate ( $P = 0.008$ ), whereas age was a statistically nonsignificant covariate ( $P > 0.05$ ).

**Participants of the replication study.** Four hundred and eight participants ( $M_{\text{age}} = 39.752$ ; nine participants did not report their age; 51.5% female; eight participants did not report their gender) were randomly assigned to one of four conditions (low ability & absent self-promotion, low ability & present self-promotion, high ability & absent self-promotion, or high ability & present self-promotion). Our data exclusion criteria excluded cases if (1) there was an incorrect response to our attention screener (*Please indicate that you are paying attention to this study by choosing option “6”*) and/or (2) no response to the dependent measures *I trust this seller* and *I would be willing to buy the TV from this seller*. Nine participants met either one or both exclusion criteria; their data were therefore removed from further analyses, resulting in a final sample size of 399.

**Experimental design and procedure of the replication study.** The replication part of Study 6 employed a 2 (ability: low vs. high)  $\times$  2 (self-promotion: absent vs. present) between-subjects experimental design in which we manipulated both the ability and the self-promotion of an online

seller. The study materials and data collection plan were stored on OSF prior to launching the study and can be accessed here:

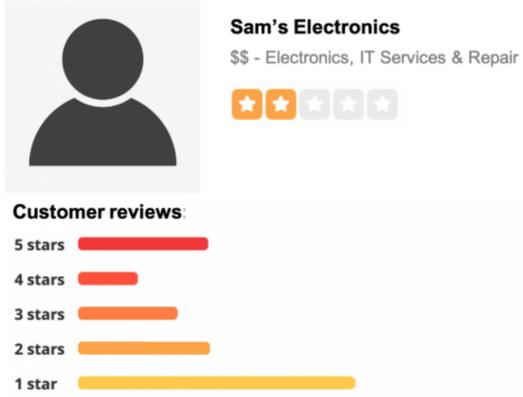
[https://osf.io/hq9ec/?view\\_only=6dd5dbea563e4a8093ef270e66fd9543](https://osf.io/hq9ec/?view_only=6dd5dbea563e4a8093ef270e66fd9543).

The experimental design and procedure were similar to Study 1A, except that ability (*This seller has high abilities as reflected by his customer reviews*) and self-promotion (*This seller wrote a personal message in which he was bragging about himself*) were assessed as one-item measures, respectively. The two trust items were again highly reliable (items adapted from 6; Cronbach's alpha = 0.945).

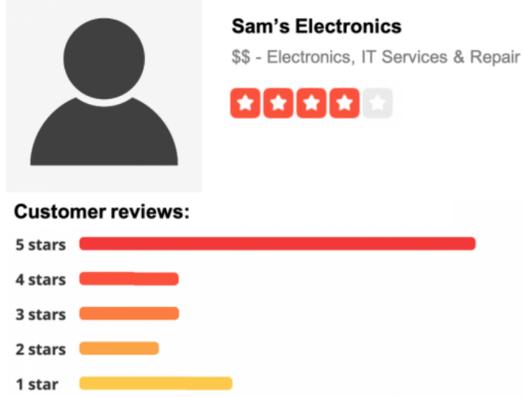
**Results of the replication study.** We checked the effectiveness of our manipulation of ability and self-promotion. Results revealed that our ability manipulation was successful. Specifically, participants in the high ability condition rated the seller as having higher ability ( $M = 3.854$ ) than did those in the low ability condition ( $M = 2.025$ ;  $t(397) = 13.570$ ,  $P < 0.001$ , Cohen's  $d = 1.359$ ). Results also revealed that our self-promotion manipulation was successful. Specifically, participants in the present self-promotion condition rated the seller as more self-promoting ( $M = 6.711$ ) than did those in the absent self-promotion condition ( $M = 1.985$ ;  $t(397) = 43.283$ ,  $P < 0.001$ , Cohen's  $d = 4.334$ ).

We next tested for the negative interactive effect of ability and self-promotion on trust. As predicted, a two-way analysis of variance with ability (low, high) and self-promotion (absent, present) as fixed factors and trust as the dependent variable revealed an interactive effect of ability and self-promotion on trust,  $F(1, 395) = 71.357$ ,  $P < 0.001$ , partial  $\eta^2 = 0.153$ . Results also showed that the difference in trust between low ability and high ability was higher when the seller did not self-promote ( $M_{High\ ability, absent\ self-promotion} = 4.308$ ;  $M_{Low\ ability, absent\ self-promotion} = 1.924$ ; post-hoc Tukey HSD test:  $P < 0.001$ ) than when the seller did self-promote ( $M_{High\ ability, present\ self-promotion} = 1.995$ ;  $M_{Low\ ability, present\ self-promotion} = 1.559$ ;  $P = 0.038$ ). As expected, the analysis also revealed main effects of ability on trust,  $F(1, 395) = 149.442$ ,  $P < 0.001$ , partial  $\eta^2 = 0.274$ , and self-promotion on trust,  $F(1, 395) = 134.817$ ,  $P < 0.001$ , partial  $\eta^2 = 0.254$ . Gender (female = 1), age, and ethnicity (white = 1) did not affect our focal interactive effect at statistically significant levels (three-way interactions:  $P_s > 0.05$ ).

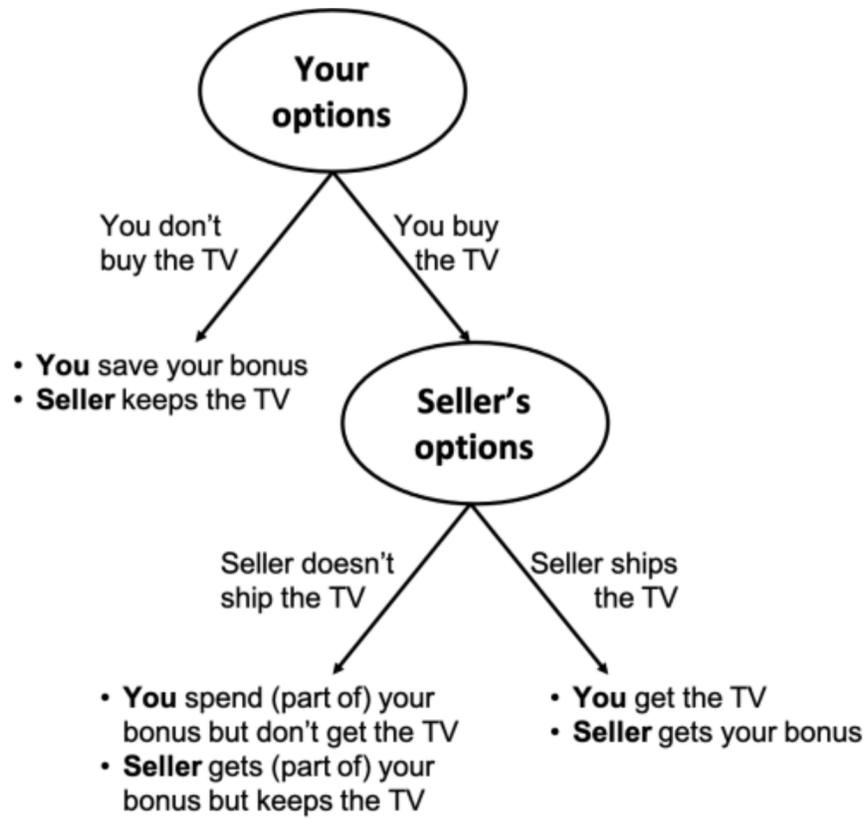
Panel A



Panel B



**Fig. S1.** Stimuli of Study 1A. Customer reviews for online seller in the low-ability condition (panel A) and the high-ability condition (panel B).



**Fig. S2.** Decision tree of Study 2. Options and outcomes shown to participants.

### Panel A

 **Coffee Gear**  
Sponsored ·  ...

392 customers rated the product 4 out of 5 stars: "They build a machine able to brew great coffee."



The BEST of the best on the whole planet!  
Pay homage to OUR GREATNESS.  
- Coffee Gear Team

COFFEEGEARFORYOU.COM  
**The Ultimate Coffee Experience** [SHOP NOW](#)

 Like  Comment  Share

### Panel B

 **Coffee Gear**  
Sponsored ·  ...

392 customers rated the product 4 out of 5 stars: "They build a machine able to brew great coffee."



COFFEEGEARFORYOU.COM  
**The Ultimate Coffee Experience** [SHOP NOW](#)

 Like  Comment  Share

**Fig. S3.** Stimuli of Study 3. Social media advertisements of a new coffee machine in the present self-promotion condition (panel A) and the absent self-promotion condition (panel B).

**Table S1.** Overview of Studies.

<b>Study</b>	<b>Type of effect</b>	<b>Specific purpose</b>	<b>Experimental manipulation(s)</b>	<b>Dependent measure(s)</b>	<b>Key finding</b>
1A & 1B	Interactive effect	To show that self-promotion attenuates the effect of ability on perceptual trust	2 (ability) × 2 (self-promotion) between-subjects	Trust ratings	Self-promotion attenuates the positive effect of ability on perceptual trust
2	Interactive effect	To show that self-promotion also attenuates the effect of ability on intentional trust	2 (ability) × 2 (self-promotion) between-subjects	Entrusted down payments	Self-promotion attenuates the positive effect of ability on intentional trust
3	Main effect (ability kept constant)	To show that self-promotion decreases behavioral trust	Self-promotion (absent, present) between-subjects	Clicks on “Shop Now” button	Self-promotion decreases click-through rate
4	Interactive effect and moderated mediation effect	To show that self-promotion attenuates the focal effect via benevolence and integrity	2 (ability) × 2 (self-promotion) between-subjects	Benevolence, integrity, and trust ratings	Self-promotion mutes the positive effect of ability on perceptual trust via benevolence and integrity perceptions
5	Interactive effect and moderated mediation effect	To show that intimidation attenuates the focal effect via benevolence and integrity	2 (ability) × 2 (intimidation) between-subjects	Benevolence, integrity, and trust ratings	Intimidation mutes the positive effect of ability on perceptual trust via benevolence and integrity perceptions
6	Interactive effect	To show that people correctly forecast that self-promotion attenuates the focal effect	2 (ability) × 2 (self-promotion) within-subjects	Social judgments	A prediction market forecasts that self-promotion attenuates the positive effect of ability on perceptual trust

**Table S2.** Ad Specifications of Study 3.

<b>Ad specification</b>	<b>Selection</b>
Special Ad Categories:	<ul style="list-style-type: none"><li>• No categories declared</li></ul>
Campaign Details:	<ul style="list-style-type: none"><li>• Auction</li><li>• Campaign objective: Reach</li><li>• Campaign Spending Limit: None added</li></ul>
A/B Test:	<ul style="list-style-type: none"><li>• On</li></ul>
Campaign Budget Optimization:	<ul style="list-style-type: none"><li>• Off</li></ul>
Dynamic Creative:	<ul style="list-style-type: none"><li>• Off</li></ul>
Budget & Schedule:	<ul style="list-style-type: none"><li>• Daily budget: \$50</li><li>• Campaign bid strategy: Lowest cost</li><li>• Ad scheduling: Runs ads all the time</li></ul>
Audience:	<ul style="list-style-type: none"><li>• Location: United States</li><li>• Age: 18-65+</li><li>• Gender: All genders</li><li>• Detailed targeting: Off</li><li>• Languages: All languages</li></ul>
Placements:	<ul style="list-style-type: none"><li>• Automatic placements</li></ul>
Optimization & Delivery:	<ul style="list-style-type: none"><li>• Optimization for ad delivery: Reach</li><li>• Bid control: none</li><li>• Frequency cap: 1 impression every 7 days</li><li>• When researcher gets charged: Impression</li><li>• Delivery type: Standard</li></ul>
Ad Setup:	<ul style="list-style-type: none"><li>• Create ad</li><li>• Format: Single image or video</li><li>• Fullscreen mobile experience: No</li></ul>

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