

EMPIRICAL ARTICLE

Trust is a two-way street: Why advisors who trust others are more persuasive

Uriel Haran¹ and Ori Weisel²

¹Department of Management, Ben-Gurion University of the Negev, Beer-Sheva 8410501, Israel and ²Department of Public Policy, Tel Aviv University, Tel Aviv 6997801, Israel

Corresponding author: Uriel Haran; Email: uharan@bgu.ac.il

Received: 30 September 2024; **Revised:** 3 February 2025; **Accepted:** 6 February 2025

Keywords: advice taking; trust; judge–advisor system; trust game

Abstract

Trust is essential for effective collaboration. In advice settings, decision-makers' trust in their advisors determines their willingness to follow advice. We propose that trust in the opposite direction, that is, the trust of the advisor in the decision-maker, can affect the use of advice. Specifically, we suggest that advice-taking is greater after a show of trust by the advisor than after an instance of distrust. We conducted four behavioral experiments using the trust game and judge–advisor system paradigms and one scenario study using a sample of currently employed professionals ($N = 1599$). We find that initial displays of trust by advisors result in greater acceptance of their advice (Studies 1A–B). This effect persists across different levels of advice quality, resulting in smaller underutilization of high-quality advice but also in overreliance on low-quality advice (Study 2). Decision-makers not only show greater willingness to follow advisors who trust them but also respond similarly to advisors who display trust in other people (Study 3). Finally, we find evidence for both perceived advisor competence and decision-makers' motivation to reciprocate as mediators of the relation between advisors' level of trust and decision-makers' willingness to follow their advice (Study 4). Our findings shed light on the dynamics of trust and persuasion in advice relationships and provide insight for advisors who wish to maintain the effectiveness of their input.

1. Introduction

Advice, in the form of recommendations, tips, background information, and inspirational messages, is very abundant, and its sources are not always familiar. Because decision-makers do not know in advance the accuracy of the advice they receive, they must evaluate its quality before determining whether and how much to follow it. Research on advice-taking has largely focused on the rules and heuristics people apply in determining the expected quality of the advice, such as considering the advisor's expertise in the relevant domain (e.g., Meshi et al., 2012) and confidence in its accuracy (e.g., Pulford et al., 2018). In this work, we examine the effect of the advisor's trust in the decision-maker on the decision-maker's reliance on the advice. Although this factor is not typically related to the potential accuracy of the advisor's input, we suggest it may affect the willingness of decision-makers to follow advice.

Trust is a key aspect of social life. It is essential for establishing and maintaining cooperation (Cook et al., 2009) and for team performance (Simons & Peterson, 2000). When decision-makers trust their advisors, they are more likely to follow their advice without engaging in a vigilant processing of

information (Sperber et al., 2010). But does the advisor's trust in the decision-maker also influence the decision-maker's behavior? On one hand, trusting or distrusting another person does not affect the knowledge or accuracy of the trustor's judgments. Decision-makers, who are motivated to maximize the accuracy of their own judgments, should therefore ignore this irrelevant signal from the advisor. On the other hand, the literature on trust suggests that it may spur motivations in trustees beyond simply maximizing their own performance. In this article, we explore this question and suggest that displays of trust and distrust encourage a motivation to reciprocate and affect impressions of the trustor and his or her input. As a result, people are more willing to follow advice from advisors who initially showed trust in them than from those who did not.

2. Theoretical background

2.1. *Determinants of advice-taking*

The literature on advice-taking suggests (and often assumes) that the primary motive for seeking advice is to maximize decision accuracy (Dalal & Bonaccio, 2010; Yaniv & Milyavsky, 2007). Empirical evidence suggests that obtaining information from different sources indeed improves estimation and decision quality (Müller-Trede et al., 2018; Sniezek et al., 2004; Soll & Larrick, 2009; Yaniv & Choshen-Hillel, 2012). People, however, may also seek advice for motivations other than accuracy maximization and even in situations where there is no correct answer to reach. They look for advice for reasons such as sharing accountability and responsibility for a decision they are about to take, obtaining new perspectives (Bonaccio & Dalal, 2006), validating or legitimizing their views (McDonald & Westphal, 2003), or receiving emotional support (Goldsmith & Fitch, 1997). Yet, despite the proven advantages of advice for recipients and their general openness to receiving advice, people tend to underutilize it and ascribe too much weight to their own opinions (Kämmer et al., 2023; Yaniv, 2004).

The abundance and variety of sources of advice make it important to be able to evaluate its quality. In the absence of explicit information on the accuracy of the advice, people must use other signals to make their evaluations (Pescetelli & Yeung, 2021). One such signal is expertise and past performance. People heed the advice of experts more frequently than the advice of novices, assign more weight to advice that is based on extensive knowledge or information, and show reluctance to follow advisors who were previously inaccurate (Harvey & Fischer, 1997; Redd, 2002; Sniezek et al., 2004). Another factor is advisor confidence. People infer from advisors' high confidence that they are more likely to provide accurate advice, and the opposite for low confidence (Price & Stone, 2004; Pulford et al., 2018). This phenomenon, sometimes termed the confidence heuristic, occurs despite the weak to nonexistent relation between confidence and actual accuracy (Hertz et al., 2018) and even when advisors strategically inflate their confidence to influence the decision-maker (Haran et al., 2022; Radzevick & Moore, 2011; Van Zant, 2021).

2.2. *Trust and its role in advice settings*

Trust also plays a key role in advice-taking. Decision-makers' trust in their advisors predicts both their propensity to take advice and their confidence after using it (Sniezek & Van Swol, 2001). Trust refers to 'confident positive expectations regarding another's conduct' (Lewicki et al., 1998). It is a key factor in the success of dyads, teams, and organizations. Trust is related to positive outcomes at work, such as worker self-efficacy, psychological safety, and job performance (Li & Tan, 2013). It reduces costs associated with monitoring and risk management (Ferrin et al., 2007; Langfred, 2007), facilitates knowledge creation and sharing (Bencsik et al., 2020), and helps maintain long-term relationships (Palvia, 2009). Mayer et al. (1995) defined trust as a manifestation of the trustor's three beliefs about the trusted party: that it is competent, that it behaves according to acceptable principles (which they termed 'integrity'), and that it has a benevolent, altruistic motivation toward the trustor. Accordingly,

in organizations, employees' trust in their managers is based on their perceptions of the managers' competence, integrity, and benevolence (Mayer & Davis, 1999; Mayer & Gavin, 2005).

Advice research has found that trust in advisors is related to advice-taking (Briggs et al., 2002; Haran & Shalvi, 2020; Lachance & Tang, 2012; Pescetelli & Yeung, 2021; Sillence et al., 2006). Wang and Du (2018), for example, measured participants' trust in the advice they received and found that it predicts the weight participants gave the advice in their final answers. White (2005) varied two dimensions of advisor trustworthiness, namely expertise and benevolence. She found that benevolence increases advice-taking in emotionally difficult decisions, while advisor expertise is valued in decisions that are less difficult emotionally.

Whereas all these works have focused on decision-makers' trust in advisors and how it affects their advice-taking behavior, in the present research we examined the effect of trust in the opposite direction: trust of the advisor in the decision-maker. Trust in this direction is less intuitive, but can nonetheless affect the behavior of trustees. In the present research, we tested whether the level of trust the advisor has in the decision-maker influences the decision-maker's willingness to follow advice.

2.3. *How trust by the advisor may affect advice-taking*

Should trust by the advisor affect advice-taking? Rationally, the answer seems to be no. Whether or not the advisor has previously trusted the decision-maker provides no direct signal of the advisor's domain knowledge or abilities. If people are concerned about the accuracy of their judgments, and take advice primarily for improving their accuracy, then previous displays of trust by the advisor should not influence their behavior.

On the other hand, feeling trusted or distrusted affects people's behavior. Being trusted increases feelings of pride and self-esteem (Baer et al., 2015; Pierce & Gardner, 2004) and has positive effects on job performance (Brower et al., 2009; Lau et al., 2014). Conversely, feeling distrusted makes people perceive their treatment as unfair (Dunning et al., 2019) and may cause negative reactance (Mooijman et al., 2017).

In addition, we believe that being trusted or distrusted by a person may specifically affect people's perceptions of that person. For example, when people feel trusted by another person, they perceive higher responsibility toward the trustor and higher commitment to the relationship (Baer et al., 2015; Brower et al., 2009; Chen et al., 2021; Salamon & Robinson, 2008). Employees who feel adequately trusted by their supervisors perceive their supervisors as more mindful of their needs and as acting more fairly than employees who feel distrusted (Baer et al., 2021). Accordingly, people might perceive an advisor who distrusts them as unmotivated to help or to make an effort to provide the most accurate advice. Decision-makers may also view others' trust in them as a sign of good judgment. People tend to see themselves as possessing higher qualities than others (e.g., honesty; Brown, 2011; Logg et al., 2018), and feeling trusted by another person increases feelings of competence (Lau et al., 2014). People might therefore consider a person who trusts them as a more accurate judge of their character than someone who does not trust them, and, by extension, as a generally more competent person. Such competence perceptions may affect their expectations of the quality of the advisor's input.

In addition to perceived competence, advisor trust and distrust may affect advice-taking through the social aspects of the exchange between advisors and decision-makers, particularly the expectation or motivation to reciprocate. Reciprocity is the dynamic by which people respond to friendly behavior by others with prosocial and cooperative behavior and to unfriendly behavior with correspondingly negative reactions (Fehr & Gächter, 2000). Social Exchange Theory posits that the expectation of reciprocity acts as a rule of exchange in the development of trust in relationships (Cropanzano & Mitchell, 2005). This expectation dictates that when one individual provides a benefit to another, the recipient should respond in kind without the need for explicit negotiation or bargaining (Cropanzano & Mitchell, 2005; Molm, 2003). Reciprocity may stem from utilitarianism and self-interested willingness to benefit one's counterpart now to encourage similar favors from the counterpart later. But it can also emerge from increased liking of the person, which can occur following a display of trust (Collins &

Miller, 1994), or from a personal sense of obligation (Göbel et al., 2013), independently of future expectations from the relationship. To the extent that decision-makers view advice-taking as a show of trust (Milyavsky & Gvili, 2024), they may follow advice to a large or small extent to reciprocate the level of trust the advisor showed toward them. Additionally, decision-makers may expect advisors to care about their advice being taken (as advisors indeed do; Blunden et al., 2019), and feel obligated to follow the advice as a show of kindness or to reject it as a form of retribution against a distrusting advisor.

Establishing a link between trust in the decision-maker and the willingness of the decision-maker to follow advice can be useful for advisors. Since persuasion is often a primary goal for advisors (Blunden et al., 2019), they can strategically use displays of trust in advisees to help increase, or maintain, the likelihood that the advice is followed. Furthermore, if advice seekers indeed perceive trusting advisors to be more competent, this in itself can be a pleasant, ego-boosting/maintaining experience for advisors (Baumeister et al., 1996; Stucke & Sporer, 2002).

3. Hypotheses and overview of the research

Our main hypothesis is that the level of trust by the advisor affects the trusted party's adherence to advice. Trust leads to greater advice taking whereas distrust decreases it. The trust literature includes several conceptualizations of trust and distrust. In the present research, we consider trust and distrust to be two points on a single continuum. Each of our studies includes two trust conditions, of which one presents a higher level of trust than the other. In every such case we label the former *the trust condition* and the latter *the distrust condition*. We use the label 'trust' to indicate a level of trust that is considerably higher than the middle of the continuum and the label 'distrust' for a point far below the middle. These two points, while essentially far from each other, are not meant to represent the end points of the trust–distrust continuum. Our condition labels are therefore relative to each other and do not depend on any precise level of felt trust by participants.

We also test two potential underlying mechanisms for the effect of trust and distrust on advice-taking: perceived advisor competence and motivation to reciprocate. We predict that decision-makers perceive the advice of advisors who trust them as more likely to be accurate than the advice of distrusting advisors and therefore give their advice more influence on their decisions. We also predict that being trusted evokes feelings of gratitude and motivation to reciprocate, which increases the willingness of decision-makers to follow the advice of advisors who show trust in them, regardless of how accurate they expect or perceive the advice to be.

We tested our hypotheses in four behavioral experiments and one scenario study. The behavioral experiments (Studies 1A–B, 2, and 3) used a version of the trust game (Berg et al., 1995) to evoke initial trust and distrust, and the judge–advisor system (Sniezek & Buckley, 1995) to measure advice-taking. [Table 1](#) outlines the basic procedure.

3.1. Trust manipulation

One of the most popular experimental tools for studying trust is the trust game (Berg et al., 1995; Levine & Schweitzer, 2015). In the trust game, one player (Player A) receives an initial endowment and decides how much of it to transfer to a partner (Player B). The transferred amount is multiplied by a predetermined factor (typically, three), and Player B decides how much of it to send back to Player A. When Player A trusts that Player B will return a fair share of the overall amount, the most beneficial choice is to transfer all the endowment to Player B and thus maximize the players' joint gain. However, the game does not include a structural mechanism that prevents Player B from keeping an unfairly large share of the transferred amount, or even all of it. Suspecting that this is Player B's intention, a cautious Player A should not transfer anything to Player B in the first place. In effect, players typically transfer part or all of their endowment to their partners, and their partners often transfer substantial amounts

Table 1. An outline of the experimental procedure, manipulations, and measures of Studies 1–3.

Stage of the experiment	Manipulations	Measures
1. Trust game: Participants observe partners' allocation decision	Trust (all studies); Pairing type (Study 3)	
2. Estimation task: Participants complete a task with advice received from advisors	Advisor knowledge (Study 2)	Advice taking (all studies); Confidence (Study 1A); Estimated advisor performance (Studies 1B, 2, 3)
3. Trust game completion: Participants make point return decision		Points returned (all studies)

back. Transferring a large part of the initial endowment is interpreted as a display of trust (Camerer, 2011). Although the trust game may also reflect attitudes toward equality and risk (Ashraf et al., 2006), it is related to trust in financial decisions (e.g., Karlan, 2005) as well as to attitudinal (Schweitzer et al., 2006) and common survey measures of trust (Banerjee et al., 2021).

We used the trust game paradigm, with a few modifications, to manipulate initial advisor trust. Before every experiment, we conducted a preliminary session to elicit transfer decisions in the trust game and advice for the estimation task. These preliminary sessions began with participants playing the trust game in the role of Player A. We gave each of them an initial endowment of 10 points (carrying a monetary value). Unlike the classic version of the game, in our studies we constrained the choice of allocation to one of two alternatives: either transfer the entire endowment to Player B (and keep nothing), or transfer just one point (and keep nine). The first option signals trust that player B will return a fair share, while the second implies distrust that Player B will act fairly.¹ Later, in the main sessions of the experiment, (different) participants assumed the role of Player B. They read a description of the game, including the initial point transfer from their partner, the tripling of transferred points, and the possible return of points later. Starting with 0 points, half of the participants were assigned partners who displayed trust by transferring their entire 10-point endowment. The other half were assigned partners who made the distrusting choice. We informed participants of the two possible allocations their partners could choose and the one they ultimately chose, and reminded them that at the end of the experiment, they would have the opportunity to transfer points back to their partners. After the estimation and advice-taking task (which we describe in the next section), participants decided how many points (any number between 0 and their entire tripled endowment) to transfer back to their partners.

3.2. Advice-taking measure

Following the trust manipulation, participants completed an estimation task with advice. We used the preliminary sessions to elicit advice. Advisors—previously in the role of Payer A in the trust game described above—completed an estimation task and provided their answers as advice to the

¹In a meta-analysis on the trust game (Johnson & Mislin, 2011) the mean transfer across all studies in the analysis was 50% of Player A's initial endowment. The two transfer options in our studies were more extreme than the highest and lowest mean transfers observed in the meta-analysis (89% and 22% of Player A's endowment, respectively).

decision-makers, who would later perform the same task. They had a monetary incentive to provide accurate advice. In the main sessions, participants proceeded from the trust game (in which they assumed the role of Player B) to complete the estimation task as decision-makers, with a similar incentive to make accurate estimates. We used the judge–advisor system (JAS) paradigm (Sniezek & Van Swol, 2001) to measure advice-taking. In this paradigm, decision-makers receive a question and provide an initial answer. They then receive advice (a recommended answer from their advisor) and an opportunity to provide a revised, final answer. Advice-taking is measured by the weight of the advice (*WOA*), which represents the degree to which participants adjusted their estimates in the direction of the advice relative to the distance between the advice and the initial estimate (Harvey & Fischer, 1997):

$$WOA = (\text{final estimate} - \text{initial estimate}) / (\text{advice} - \text{initial estimate}).$$

The output of this formula represents the influence of the advice when determining the final estimate as a weighted average of the initial estimate and the advice. The more influential the advice, the higher the value. Following the standard procedure in advice research (e.g., Minson & Mueller, 2012; Soll & Larrick, 2009), we winsorized *WOA* values at 0 and 1, recoding all values below 0 as 0 (indicating total rejection of the advice) and all values higher than 1 as 1 (indicating complete acceptance of the advice). When the advice and the initial estimate are identical, the value of the denominator is zero and the formula yields an undefined value, preventing the inclusion of the item in the data analysis (see Bonaccio & Dalal, 2006). In our studies, such instances occurred about 1% of the time. We provide the frequencies of undefined and winsorized values for each study.

3.3. *Studies overview*

The studies are organized as follows. Studies 1A–B tested the effect of the initial level of trust by advisors in decision-makers on the degree to which decision-makers followed the advice. Participants assumed the role of Player B in the trust game, where they learned of their partners' trusting or distrusting point transfer decisions. Next, they made a series of categorical choices (Study 1A) or numeric estimations (Study 1B) with advice from the same partners. Study 1B also measured participants' estimates of the performance of their advisors. After the advice stage, participants completed the trust game by transferring points back to Player A (their advisor).

Study 2 tested the robustness of the effect to variations in advice quality. In one condition, participants received advice that was highly informed and therefore should have more influence than the participant's initial estimate. In another condition, the advice was based on little knowledge and should accordingly receive little weight in participants' final estimates. We tested the effect of advisor trust in both settings. As in Study 1B, we also measured advisors' perceived performance and tested its role in mediating the effect of advisor trust on advice-taking.

In Study 3 we examined whether the effect is driven by the behavior of advisors (trusting or not), by the decision-makers' experience (of being trusted or not trusted), or by the context of the relationship between advisor and decision-maker. We varied participants' pairings with partners in the trust game and advisors in the estimation task. One group of participants received advice from the same person they were paired with in the trust game. Another group received advice from a person who allocated resources in a trust game with an unrelated party. Finally, in a third condition, participants first played the trust game with one person and then received advice from another person, who had not played the game. Table 1 presents the manipulations and measures in Studies 1–3 and the timing of their administration.

Finally, Study 4 tested two possible mediators of the effect: perceived attributes of the advisor and the motivation of decision-makers to reciprocate the advisor's behavior. We used a sample of employed professionals to enhance the external validity of our findings. Participants read a workplace scenario in which a senior colleague either trusts or distrusts them, and the description of a later scene in which the trustor gives them a recommendation about a decision they need to make. Participants

rated their desire to reciprocate the senior colleague's behavior, evaluated the colleague's attributes (competence, integrity, and benevolence), and estimated the likelihood that they would follow the colleague's recommendation.

All studies were preregistered. For each study, we report all data exclusions, all manipulations, and all measures. Preregistrations, data, and analysis codes for all studies are available at <https://researchbox.org/918>. In studies where our analyses deviate from our preregistered plan, we report the preregistered analyses in Appendix A.²

4. Studies 1A-B

In Studies 1A-B, we tested how advisors' initial trust in decision-makers affects subsequent advice-taking. Participants played a trust game with their partners. Half of the participants were paired with partners who had chosen to transfer all their resources to them, signaling trust, whereas the partners of the other half conveyed distrust by transferring a very small share of their resources. Next, participants completed a decision task with advice from the same partners, before completing the trust game by transferring resources back to their partners. Study 1A used a binary choice task. We measured advice-taking by the frequency with which participants changed their choice to match the advisor's recommendation (in rounds when their initial choice was different from the recommended one). In addition, we measured participants' confidence in their answers, both before and after receiving advice, and applied the *WOA* formula to adjustments in their confidence. Study 1B used a numerical estimation task; participants could revise their estimate after receiving advice. We predicted that participants who were initially trusted by their advisors would give the advice greater influence on their final decisions than would participants who were not trusted by their advisors.

4.1. Method

4.1.1. Participants and design

We conducted both studies on MTurk and paid participants a \$1 participation fee and a chance to win a monetary bonus. Our preregistered plan included collecting data until we reached 200 responses (in Study 1B, specifically, we preregistered 200 valid responses after planned exclusions). Study 1A included 200 participants. Based on our preregistered exclusion criteria, we removed 16 participants (8.0% of the sample) who failed the attention check, bringing our final sample down to 184 individuals (*Mage* = 40.56, 71 females, 109 males, 2 other, and 2 who did not declare). A power sensitivity analysis in G*Power 3.1 for an independent-samples t-test assuming 90% power and $\alpha = 0.05$ determined that this sample size was sufficient for the detection of a minimum effect size of $d = 0.48$. For Study 1B we recruited 227 participants, then removed 27 of them (11.9% of the sample) for failing the attention check, bringing the final sample to 200 participants (*Mage* = 37.61, 87 females, 112 males, 1 did not declare). A power analysis with the same parameters as Study 1A determined this sample size sufficient for the detection of a minimum effect size of $d = 0.46$. Both studies used a 2-group design, assigning each participant randomly to either a trusting or a distrusting advisor.

4.1.2. Trust manipulation

In Part 1 of both studies, participants first received a 3-digit participant ID number, then learned they would be paired throughout the study with a counterpart who completed a similar study the previous week. We informed participants of their counterpart's 3-digit participant ID number, that the counterpart received 10 points, and that he or she could transfer some of these points to them. We specified that each point they received from their counterpart would be tripled, whereas the points the counterpart kept would retain their original value. Next, we explained the counterpart's two transfer options: (a)

²The reported analyses all yielded the same results as the preregistered ones. Changes were made for clarity and simplicity of interpretation.

transfer 1 point to the participant and keep the other nine; (b) transfer all 10 points and keep 0. If the counterpart transferred 1 point, this point would be tripled and the participant would receive 3 points, while the counterpart would have the 9 points he or she kept; if the counterpart transferred 10 points, these points would be tripled and the participant would receive 30 points, while the counterpart would then have 0. We informed participants that in Part 3 of the study they would decide how many points to transfer back to the counterpart and how many to keep for themselves and that the counterpart knew, when making the decision, that participants would decide how many points to transfer back. Finally, we told participants that after the study we would conduct a lottery to pick two pairs of participants (i.e., one from the main study and a partner from the preliminary study), who would win \$1 for every point they had at the end of the study.

On the next page, we reminded participants of the counterpart's two transfer options and revealed the counterpart's choice. Half of the participants (the trust condition) received 10 points, and the other half (the distrust condition) received only 1 point. We explained again the tripling procedure, informed participants about their new point total, and reminded them that later they will decide how many points to transfer back to their counterparts. At the end of Part 1, we administered an attention check, asking participants how many points their partner transferred to them.

4.1.3. Measures

Advice taking. In Part 2 of the study, we told participants that they would make a series of estimates with limited information and that for every estimate they would receive advice sent by their counterpart from Part 1.

Study 1A: Binary Choices. The estimation task in Study 1A included 10 rounds. In each round, participants observed a matrix that appeared for 1 second. The matrix included 400 cells, each cell colored in one of two colors. Participants estimated which color appeared in more cells and indicated their confidence in their answers. We informed them that they would receive advice sent by their counterpart from part 1 of the study, who observed each matrix for 8 seconds (compared with the 1-second exposure time allotted to them).

In each round, participants first observed the matrix, then provided their choices and confidence on a slider scale, which included the label 'I'm sure there are more [color] cells' at each end and 'I have no idea' at its center. The marker was initially positioned at the center point. We instructed participants to (a) choose a color by moving the marker in the direction of the color that appeared in more cells and (b) indicate their confidence in their answers by placing the marker at the appropriate point on the scale. On the next page, participants observed their initial choice and the advice sent by the advisor. The advice read: *Participant [Participant ID] sent you the following advice: The matrix had more [color] cells.* The slider scale appeared again below the advice, this time with the marker positioned where the participant had placed it in the initial estimate. Participants could move the marker to indicate their updated estimate and confidence.

We measured advice-taking by calculating the percentage of cases in which participants changed their choice of color from the one they originally estimated to the color recommended by the advice—that is, moving the marker from one side of the scale's midpoint to the other side—out of all cases in which the advice recommended a change. Note that in two-choice tasks there is, by default, a 50% chance of initial agreement between participants' initial estimates and the advice. In the present study, we observed initial agreement in 57.5% of the cases (1058 estimates), ultimately coded as missing values.

Our measure of the influence of the advice on participants' confidence offers greater sensitivity than the binary choice. We applied the *WOA* formula to participants' confidence, using the end of the scale representing the recommended color as the value of the advice. This calculation produces a missing value only when the participant initially reports complete certainty in one color and the advice recommends the same color. Such complete agreement occurred in 5.9% of the cases (108 estimates). We winsorized confidence-change values at 0, recoding adjustments of confidence away

from the recommendation as 0 (which represents complete rejection of the advice). The highest possible change in confidence was 1, therefore high range restriction was not needed; winsorizing affected 76 estimates (4.1% of the sample).³

Study 1B: Numerical Estimates. Study 1B used a novel estimation task. In each of the task's 8 rounds, participants saw a matrix with 100 cells, all initially marked '?'. Participants learned that each cell contains a number randomly sampled from an undisclosed distribution and that their job is to estimate the average of these 100 numbers. They then clicked a button to reveal the numbers of 5 cells and their average and, with this information at their disposal, estimated the average of all 100 numbers in the matrix. After the initial estimate, participants received advice from their counterparts, who made a similar estimate, but observed the numbers and average of 20 cells of the matrix.⁴ Participants then provided their final estimate. We informed participants that each accurate final estimate would earn them a lottery ticket for a \$5 bonus, unrelated to the lottery for Part 1 of the study and that their advisor earned a ticket for a separate lottery with each accurate piece of advice. Our standard of accuracy was 10% or less from the correct answer (e.g., if the correct answer is 450, then any estimate or advice between 405 and 495 was considered accurate). We measured advice taking by the weight of advice (*WOA*) formula (Harvey & Fischer, 1997). Three initial estimates (0.2% of the sample) were identical to the advice, yielding null values for *WOA*. We winsorized *WOA* values at 1 and 0 by recoding values higher than 1 as 1 and values lower than 0 as 0. This affected 96 estimates (6.0% of the sample).

Estimated Advisor Performance. In Study 1B we also measured participants' estimates of the advisor's performance. Upon completion of all eight rounds of the task, we asked them 'in your estimation, in how many rounds did you receive accurate advice (that was within 10% of the correct answer)?' Participants answered by choosing a number between 0 and 8 from a drop-down menu.

Point return. Finally, participants completed the trust game from Part 1. We reminded them of the game's procedure, the number of points their counterpart had transferred to them, and their new (tripled) point total. They then typed the number of points they would like to transfer back to their counterpart. Those who wished not to transfer any points back typed 0.

4.2. Results

4.2.1. Study 1A

Advice Taking and Confidence Adjustment. We conducted an independent samples t-test to measure the effect of initial trust on advice-taking. The analysis revealed a highly significant effect ($t[181.46] = 4.38, p < 0.001, d = 0.65$). Participants whose advisors had initially trusted them changed their choices significantly more often than those whose advisors had displayed distrust before the estimation task (trust: 62.5% of estimates, $SD = 0.38$; distrust: 37.6%, $SD = 0.39$). We found the same effect on adjustments in confidence ($t[178.23] = 3.57, p < 0.001, d = 0.53$). As predicted, participants in the trust condition moved the marker in the direction of the color recommended by the advisor more than in the distrust condition (trust: 40% of the distance between their initial placement and the end of the scale ($SD = 0.26$); distrust: 26% ($SD = 0.24$)).⁵

³In Studies 1A-B we preregistered winsorizing *WOA* at 1 and -1 but eventually decided to use 1 and 0 as upper and lower bounds to be consistent with later studies and with the advice literature. Analyses using winsorized values at 1 and -1 yielded the same results, and we report them in Appendix A.

⁴To encourage advisors to provide as advice the average of the 20 numbers they observed, we noted in their instructions that this average is, statistically, the best predictor of the average of the entire sample. As a result, enough participants sent that average as advice so that we were able to select identical advice for all conditions.

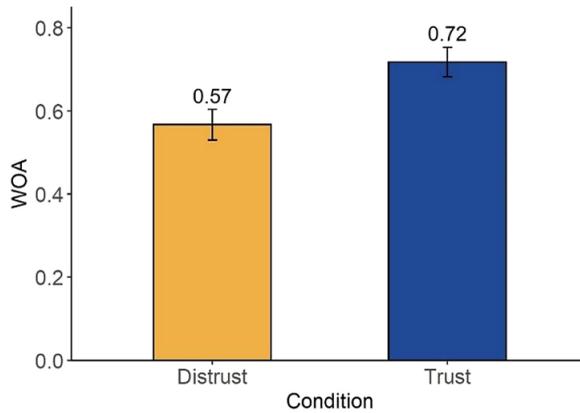


Figure 1. Average advice-taking (*WOA*) values by trust condition in Study 1B. Error bars represent ± 1 SEM.

Points Transferred Back to Partner. In the completion stage of the trust game, participants in the trust condition transferred a significantly larger share of their points back to their partners than did those in the distrust condition (trust: 12.10 points, or 40% of their share $SD = 0.22$; distrust: 0.33 points, or 11% of their share, $SD = 0.23$; $t(182) = 8.72$, $p < 0.001$, $d = 1.29$). The number of points participants returned correlated significantly with their propensity to change their initial estimates in the trust condition ($r = 0.27$, $p = 0.01$), but not in the distrust condition ($r = 0.09$, $p = 0.37$). The correlations with the adjustment in participants' confidence were not significant in either condition (trust: $r = 0.16$, $p = 0.13$; distrust: $r = 0.14$, $p = 0.18$).

4.2.2. Study 1B

Advice Taking. We conducted an independent-samples t-test on the effect of initial advisor trust on advice-taking. Figure 1 shows that participants followed the advice of a trusting advisor significantly more than the advice of a distrusting one ($t(197.58) = 4.15$, $p < 0.001$, $d = 0.59$).

Advisor Performance Estimates. We measured participants' estimates of the performance of the advisor, or the frequency with which the advisor provided accurate advice. We found positive correlations with average *WOA*, both overall ($r = 0.37$, $p < 0.001$) and in each condition separately (trust: $r = 0.42$, $p < 0.001$; distrust: $r = 0.31$, $p = 0.001$). Contrary to our expectation, the difference between the estimated performance of the trusting advisor ($M = 5.03$ rounds with accurate advice, $SD = 1.96$) and that of the distrusting advisor ($M = 4.70$, $SD = 1.95$) was not significant ($t(197.88) = 1.19$, $p = 0.24$, $d = 0.17$). A regression model on the entire sample estimating the effects of advisor trust and estimated performance on average *WOA* found significant independent contributions of both factors (advisor trust: $b = 0.13$, $SE = 0.03$, $p < 0.001$, $\eta^2 = 0.09$; estimated performance: $b = 0.05$, $SE = 0.01$, $p < 0.001$, $\eta^2 = 0.13$).

Points Transferred Back to Partner. Advisors' point allocations in the trust game affected participants' subsequent point transfer decisions. As in Study 1A, the trust group transferred back, on average, 40% of the points they received from their advisors ($M = 12.10$, $SD = 6.63$), compared with 16% ($M = 0.48$ points, $SD = 0.79$) in the distrust condition ($t(193.09) = 7.01$, $p < 0.001$, $d = 0.99$). We found no significant correlations between *WOA* and the amount transferred back by participants in either the trust condition ($r = -0.03$, $p = 0.77$) or the distrust condition ($r = -.10$, $p = 0.30$). We observed similar, non-significant correlations in the following studies as well, and report the results in Appendix A.

⁵Confidence in one's initial response predicted a lower likelihood of changing the estimate ($b = -0.19$, $SE = 0.04$, $p < 0.001$), similarly in the high trust and low trust conditions (confidence \times trust interaction: $b = -0.01$, $SE = 0.06$, $p = 0.88$).

4.3. Discussion

As we predicted, decision-makers in Studies 1A and 1B responded to trust by their advisor with greater reliance on a recommendation from the advisor than they did when the advisor did not trust them. Contrary to our prediction, however, participants' estimates of advisors' performance did not differ significantly between conditions.

Advice-taking was not the only way in which participants could respond to the advisor's behavior in the trust game. After the completion of the estimation task, participants decided how many points from their endowment they would transfer back to the advisor. Although the initial transferred amount had a dramatic effect on the number of points participants transferred back to their partners, the correlation between advice-taking and points returned was not consistent. A close examination of point return decisions suggests that they may have mostly followed social norms. Previous research has found that norms of equity and reciprocity lead players in the trust game to respond to trust by transferring back approximately half of their endowment to reach an equal split of the total payoff, and to distrust by not returning anything to their partner (Ciriolo, 2007). The results of Studies 1A and 1B are consistent with these propositions. For example, in Study 1A, 67.4% of participants in the trust condition returned exactly half of their total endowment and 76.8% of participants in the distrust condition transferred 0 points back.

5. Study 2

In Studies 1A and 1B, advisors were more knowledgeable than decision-makers, either because they were allowed more time to observe the stimuli (Study 1A) or because they received more information (Study 1B). These designs reflect typical advice settings in real life, where advisors are selected for their domain expertise or high capabilities. Nevertheless, there are situations in which the advisor is less informed or capable than the decision-maker. It is possible that advisor trust only affects the utilization of advice that is highly informed and dependable in the first place. In Study 2 we varied the expected quality of the advice, specifically the amount of knowledge on which advisors based their recommendations. When advisors are more informed than decision-makers, their advice should receive high weight. However, when the advisor has little decision-relevant knowledge, decision-makers are better off relying more on their own judgment and assigning the advice relatively little weight in the final decision. In Study 2 we tested whether initial trust by the advisor leads to greater reliance on advice than initial distrust, both when the advice is more informed than the decision-maker's own opinion and when it is less informed.

We used the same estimation task as in Study 1B. Participants observed a small subset of a group of numbers and estimated the group's grand average. This paradigm offers control of the knowledge of both decision-makers and advisors and allows not only to compare *WOA* between the groups, but also to calculate the optimal weight the advice should receive, given the relative knowledge of participants and advisors. Appendix B presents an explanation and formulas for calculating the optimal weight of advice, depending on the relative knowledge of the advisor and decision-maker and possible overlaps between them.⁶ In Study 1B, where decision-makers sampled 5 numbers and advisors sampled 20, the optimal *WOA* is 0.83. Considering this benchmark, both the trust and no-trust groups in that study underweighed the advice ($M_s \leq 0.72$, $t_s > 9.45$, $p_s < 0.001$, see Figure 1), although the trust group, which exhibited higher advice taking, was thus also closer to the optimum. In Study 2, decision-makers in all conditions sampled 10 numbers from a set of 100 numbers, whereas their advisors sampled either 20 or 5 numbers. In both cases, there is value in the advisor's input. Even the less-informed advice can help improve the decision-maker's judgments, but it should be weighed less (optimal *WOA* = 0.31, see

⁶The calculations presented in Appendix B are meant to provide a benchmark for a degree of advice taking that offers, on average, the most accurate final estimates. We do not assume that people actually engage in such calculations when determining whether and how much to follow advice.

Appendix B) than the more-informed advice (optimal $WOA = 0.72$). We predicted that the advisor's initial trust would increase advice taking in both high and low advisor knowledge conditions, that is, even when the advice should be given little weight.

5.1. Method

5.1.1. Participants and design

Our preregistered plan included collecting data until we reached 400 valid responses. We recruited 475 participants on MTurk to participate in the study in exchange for \$1.20 and a chance to win a bonus. We administered three attention checks and removed 71 participants (14.9% of the sample) who failed at least one of them, bringing the final sample to 404 participants ($M_{age} = 41.01$, 209 females, 191 males, 2 other, 2 did not declare). A power sensitivity analysis for 90% power and $\alpha = 0.05$ determined this sample size sufficient for detecting a minimum effect size of $\eta^2 = 0.02$ for main effects and $d = 0.46$ for simple effects. Each participant was randomly assigned to one of 4 groups in a 2 (initial advisor trust/distrust) \times 2 (high/low advisor knowledge) between-subjects design.

5.1.2. Initial trust manipulation

We manipulated initial trust the same way as in Studies 1A and 1B. Participants played a trust game with partners who had made their point transfer decisions in the preliminary study. Half the participants (the trust condition) were entrusted with the entire 10-point endowment, whereas the other half (the distrust condition) received only one point from the partner.

5.1.3. Estimation task and advisor knowledge manipulation

The estimation task was similar to the one used in Study 1B. Each of its eight rounds included a matrix containing 100 cells. Participants observed the numbers in 10 cells and their average and estimated the average of all 100 numbers. They then received advice from the advisor, the same person they were partnered with in the trust game, before providing a revised final estimate. Participants earned a lottery ticket for one of two \$5 prizes with every accurate final estimate (i.e., that was within 10% of the correct answer). They were also informed that their advisors, too, received a ticket for a separate \$5 lottery with every accurate piece of advice.

We manipulated advisors' knowledge by varying the size of the sample presented to them. In the high-knowledge condition, the advisor saw 20 numbers and their average before sending the advice. In the low-knowledge condition, the advisor saw only five numbers and their average.

5.1.4. Advice-taking and estimated advisor performance measures

We used the WOA formula to calculate advice-taking, as we did in previous studies. There were 2 cases (0.06% of the sample) of initial estimate being identical to the advice, ultimately coded as missing values. We winsorized WOA values at 1 and 0, which affected 228 estimates, (7.1% of the sample). As in Study 1B, after completing all eight rounds of the task, participants assessed the advisor's performance by estimating the number of times the advice was within 10% of the correct answer.

5.1.5. Trust game completion

After completing the estimation task, participants transferred points back to their partner from their tripled endowment (3 points in the distrust condition, 30 in the trust condition). After data collection, we randomly drew one participant from each trust condition in the main study and one participant who made each transfer decision in the preliminary study and paid them \$1 for each point they accumulated.

5.2. Results

5.2.1. Advice taking

We conducted a 2×2 between-subjects ANOVA on average WOA by advisors' knowledge, initial trust, and the interaction between the two. We found no interaction ($F[1, 400] = 0.35$, $p = 0.56$, $\eta^2 < 0.001$). Independent-samples t-tests within each knowledge condition reveal that as

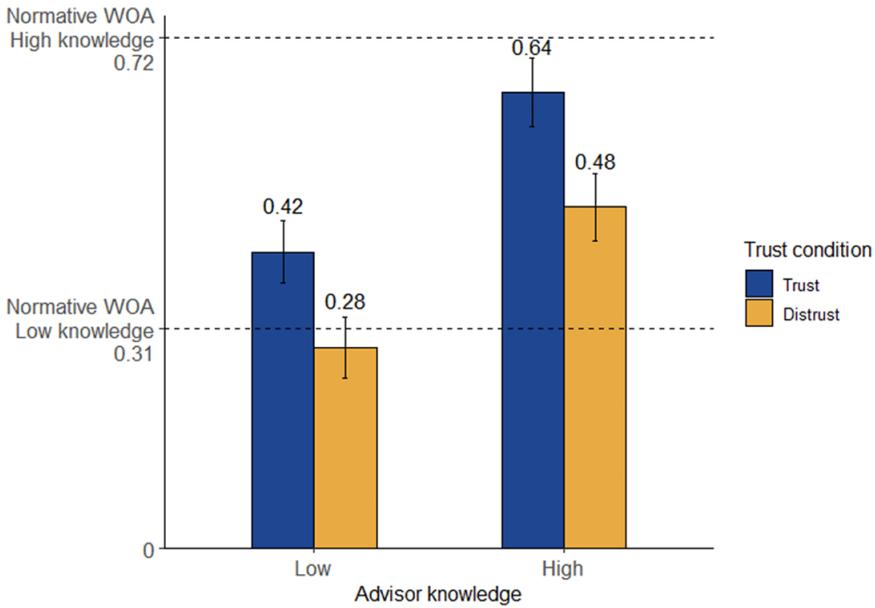


Figure 2. Average advice-taking (*WOA*) values by advisor knowledge and initial trust in Study 2. Error bars represent ± 1 SEM.

predicted, adherence to advice from a trusting advisor was significantly higher than advice from a distrusting one, both for highly informed advice ($t(206.83) = 4.73, p < 0.001, d = 0.66$) and advice based on low knowledge ($t(191.92) = 4.37, p < 0.001, d = 0.63$). The effects are presented in Figure 2.

We compared participants' *WOA* with the optimal benchmarks (0.72 for advisors with high knowledge and 0.31 for those with low knowledge). Figure 2 shows that participants who received advice from a trusting advisor were closer to the benchmark than were the partners of a non-trusting advisor in the high-knowledge condition, although they, too, discounted the advice too much ($t(102) = 3.14, p = 0.002$). When the advisor's knowledge was low, high initial trust led to significant *overutilization* of the advice ($t(93) = 4.90, p < 0.001$), suggesting that initial advisor trust can increase advice taking even to a degree that is counterproductive for the decision-maker. Decision-makers with distrusting advisors, on their part, significantly underutilized the advice in the high-knowledge condition ($t(105) = 9.93, p < 0.001$). In the low-knowledge condition, advice-taking from a distrusting advisor was below the optimal benchmark, but the difference was not significant ($t(100) = 1.21, p = 0.23$).

5.2.2. Estimated advisor performance

Consistent with our prediction, albeit not with Study 1B, participants in the current study estimated that the trusting advisor performed significantly better than the one who displayed distrust. We observed this difference in both the high knowledge (trust: $M = 5.74, SD = 1.78$; distrust: $3.92, SD = 2.04$; $t(204.69) = 6.85, p < 0.001, d = 0.95$) and the low-knowledge conditions (trust: $M = 4.79, SD = 1.94$; distrust: $3.45, SD = 1.88$; $t(191.05) = 4.89, p < 0.001, d = 0.70$).⁷

Next, we tested the interrelations between advisor trust and knowledge, perceptions of the advisor's performance, and advice taking. We conducted a regression model on average *WOA* with advisor

⁷See the results section of Study 3 for a single paper meta-analysis of estimated advisor performance across all relevant conditions in all studies.

Table 2. Results of a regression model of the effect of advisor trust, advisor knowledge, and estimated advisor performance on advice taking (WOA) in Study 2.

Predictor	Coefficient (unstandardized)	SE	<i>p</i>	η^2
Advisor trust	0.09	0.02	<0.001	0.03
Advisor knowledge	0.18	0.02	<0.001	0.14
Estimated advisor performance	0.04	0.006	<0.001	0.21

trust, knowledge, and estimated performance as predictors. The analysis found that all three factors contributed independently to the effect on advice taking. Table 2 summarizes the results.

5.3. Discussion

The results of Study 2 complement those of Studies 1A-B and support our theoretical argument. All three studies demonstrated that the trust and distrust of advisors in decision-makers affect the degree to which decision-makers subsequently follow advice. In Study 2, we also varied the amount of knowledge advisors had and found greater reliance on trusting advisors regardless of how informed they were. Comparisons of participants' advice-taking to a calculated optimum suggest that trust does not improve or harm the calibration of advice-takers. Rather, they simply give more weight to the advice of people who trust them than to the advice of those who do not.

In the present study, unlike in Study 1B, we also detected a significant effect of trust on participants' assessments of the advisor's performance, which, in turn, significantly predicted advice-taking. This finding does not rule out alternative explanations. For example, participants may have followed the advice for other reasons, and only later determined their estimates of the advisor's performance either based on their advice-taking behavior, or perhaps strategically, to justify it. In Study 4 below, we addressed this concern by measuring participants' perceptions of their advisors before asking about their willingness to take advice.

6. Study 3

Studies 1–2 found that initial displays of trust or distrust by advisors toward decision-makers affect decision-makers' subsequent advice-taking. In this interpersonal exchange between decision-maker and advisor, two factors may determine the decision-maker's response. One is the decision-maker's experience of being trusted or distrusted. Decision-makers may respond to the positive feeling of being trusted or to the negative feeling of being distrusted with higher or lower openness to the opinions of others in general, not limited to the person who elicited these feelings. Another factor taking place in the trust exchange is the advisor's display of high or low trust. People form judgments of others based on their behavior, therefore the advisor's trust behavior may affect the response not only of the trustee, but also of other people who witness it. As a result, decision-makers might consider the advisor's display of high or low trust when deciding how much to rely on the advice, even if they themselves were not the target of that behavior. Alternatively, the effect on advice-taking may only emerge as a response of direct reciprocity by within the trustor–trustee relationship.

In Study 3, we separated the effects of the advisor's behavior from those of the decision-maker's experience by varying participants' pairings with counterparts in the trust game and with advisors in the estimation task. Some participants played a trust game with a counterpart and then received advice from the same counterpart (as in Studies 1 and 2). Others received advice from an advisor who displayed trust or distrust in someone else. A third group first experienced being trusted or distrusted by a partner and then received advice from an unrelated advisor.

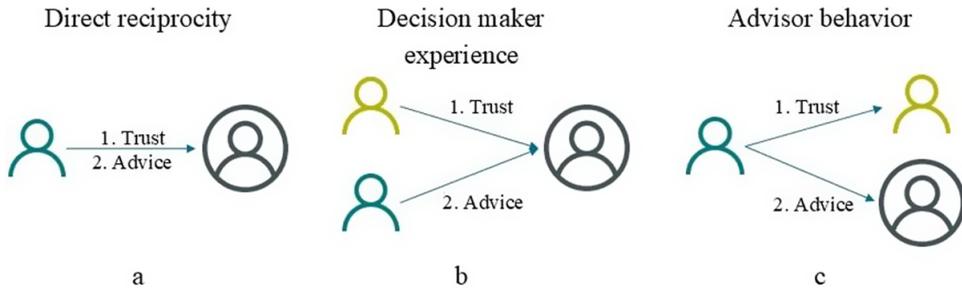


Figure 3. Participant-partner pairing type conditions in Study 3.

Note: The encircled icon represents the participant. The arrows labeled '1. Trust' specifies the pairing in the trust game. The arrows labeled '2. Advice' specify the pairing in the estimation task.

6.1. Method

6.1.1. Participants and design

Our preregistered plan included collecting 600 valid responses after exclusions. We recruited 715 MTurk workers to complete the study in exchange for \$1.20 and a chance to win a bonus. We administered two attention checks and removed from the analyses 106 participants (14.8% of the sample) who failed at least one of these checks. The final sample included 609 participants ($M_{\text{age}} = 41.04$, 302 females, 296 males, 4 other, 7 did not declare). A power sensitivity analysis assuming 90% power and $\alpha = 0.05$ determined this sample size sufficient for the detection of a minimum effect size of $\eta^2 = 0.02$ for main effects and interactions and $d = 0.46$ for trust within each pairing type condition. Each participant was randomly assigned to one of six conditions in a 2 (initial trust: yes vs. no) \times 3 (pairing type: direct reciprocity vs. advisor behavior vs. decision-maker experience) between-subjects design.

6.1.2. Pairing type manipulation

As in Studies 1B and 2, the present study consisted of a trust game and an estimation task. In the direct reciprocity condition (Figure 3, panel a), participants received advice from the same person with whom they were paired in the trust game, similar to the previous studies. Two other conditions varied the pairings between the trust game and the estimation task. In the decision-maker experience condition (Figure 3, panel b), participants played the trust game with one person and later received advice in the estimation task from another person, who had not taken part in a trust game. In the advisor behavior condition (Figure 3, panel c), participants did not play a trust game. Instead, they observed a trust game between two other people, including the decision of Player A to trust or not to trust Player B. In the ensuing estimation task, participants received advice from Player A whose decision they had observed.

To make sure participants read and understood the instructions, we administered two attention checks. One, presented after the initial stage of the trust game, asked how many points were transferred. The other, which followed the estimation task instructions, asked participants whether, in the trust game, their advisor transferred the point or points to them, to someone else, or did not take part in the game.

6.1.3. Trust manipulation

We manipulated initial trust as we did in the previous studies. In the direct reciprocity and decision-maker experience conditions, participants received either 1 point or 10 points from their partner (conveying distrust and trust, respectively). The transferred points were tripled, and at the end of the study, participants decided how many points to transfer back to their partners. The advisor behavior group did not play a trust game but observed an allocator's decision to transfer either 1 point or 10 points to a different recipient. At the end of the study, participants in this group indicated how many

points they thought the player who had received the points should transfer back. After data collection, we randomly drew two participants from the main study and one who made each transfer decision in the preliminary study and paid them \$1 for every point they had at the completion of the trust game.

6.1.4. Advice taking measure

We used the same estimation task as in Study 1B. Participants estimated the average of 100 numbers after observing 5 of these numbers and their average. They then received advice, in the form of a recommended estimate of the grand average, from their advisor. The advisor had observed 20 of the numbers in the matrix and the average of those 20 numbers before determining the advice. After seeing the advice, participants provided a final estimate for the average of all numbers in the matrix. We used the *WOA* formula to calculate advice-taking. Nine estimates (0.2% of the sample) displayed initial agreement between advisor and decision-maker and returned a missing value. We winsorized the remaining *WOA* values at 1 and 0, which affected 387 estimates (7.9% of the sample).

Both advisors and decision-makers had an incentive to make accurate estimates. Each final estimate (for participants) or piece of advice (for advisors) that was within 10% of the correct answer earned them a lottery ticket for one of five \$5 prizes. After completing the task, participants evaluated the advisor's performance by estimating the number of rounds (out of 8) in which the advice they received was accurate.

6.2. Results

6.2.1. Advice taking

Table 3 presents group means of *WOA* and estimated advisor performance. A 2×3 ANOVA of average *WOA* by trust and pairing type yielded a significant interaction ($F[2, 603] = 4.27, p = 0.01, \eta^2 = 0.01$). We conducted an independent-samples t-test of advice taking by trust in each pairing type condition. As in previous studies, we found a significant effect of advisor trust in the direct reciprocity condition ($t(207.3) = 5.58, p < 0.001, d = 0.76$), as well as in the advisor behavior condition ($t(189.81) = 2.95, p = 0.004, d = 0.43$). By contrast, the decision-maker experience condition yielded no significant effect ($t(198.10) = 1.33, p = 0.18, d = 0.19$). We used 2×2 ANOVAs to measure the difference between the various pairing type conditions. The comparison of decision-maker experience and direct reciprocity yielded a significant trust \times condition interaction ($F[1, 413] = 8.39, p = 0.004, \eta^2 = 0.02$). This finding suggests that the response to the behavior of one's own advisor, specifically, has a distinct effect from the general experience of being trusted or distrusted. The second contrast, between decision-maker experience and advisor behavior, was in the same direction, but short of being significant ($F[1, 392] = 1.35, p = 0.25, \eta^2 = 0.003$), as was the comparison between direct reciprocity and advisor behavior ($F[1, 401] = 2.86, p = 0.09, \eta^2 = 0.007$).

6.2.2. Estimated advisor performance

In the direct reciprocity and advisor behavior conditions, participants estimated that the advisor who had trusted (them or someone else) performed better than the advisor who had displayed distrust ($t \geq 2.30, p \leq 0.02, d \geq 0.33$; see Table 3). We observed a much smaller, non-significant difference in the decision-maker experience condition ($t(201.51) = 1.28, p = 0.20$), suggesting the experience of being trusted or not has little influence on how trustees perceived the performance of someone other than the trustor. A 2×3 ANOVA yielded a weaker interaction, though similar in direction, between trust and pairing type on estimated advisor performance than the one observed on advice taking ($F[2, 603] = 2.41, p = 0.09, \eta^2 = 0.01$). Similarly to *WOA*, the pattern observed in the decision-maker experience condition was significantly different from the direct reciprocity condition ($F[1, 413] = 4.86, p = 0.03, \eta^2 = 0.01$) but not from the advisor behavior condition, ($F[1, 392] = 0.82, p = 0.37, \eta^2 = 0.002$).

Next, we tested the interrelations between initial advisor trust, advisor performance evaluations, and advice taking, as we did in Study 2, by conducting a regression model on average *WOA* with advisor

Table 3. Descriptive statistics of advice taking (WOA) and estimated advisor performance by trust and pairing type in Study 3.

		Advice taking (WOA)		Estimated advisor performance (instances of accurate advice)	
		Mean	SD	Mean	SD
Direct reciprocity	Distrust	0.45	0.28	4.05	2.08
	Trust	0.65	0.24	5.17	1.93
	Difference	0.20		1.13	
			<i>p</i> < 0.001		<i>p</i> < 0.001
Advisor behavior	Distrust	0.51	0.25	4.67	1.99
	Trust	0.62	0.26	5.31	1.89
	Difference	0.11		0.65	
			<i>p</i> = 0.004		<i>p</i> = 0.02
Decision-maker experience	Distrust	0.57	0.27	4.55	1.64
	Trust	0.62	0.25	4.86	1.83
	Difference	0.05		0.31	
			<i>p</i> = 0.18		<i>p</i> = 0.20

Table 4. Results of a regression model of the effect of advisor trust, pairing type, and estimated advisor performance on advice taking (WOA) in Study 3.

Predictor	Coefficient	SE	p	Effect size η^2
Advisor trust	0.09	0.02	<0.001	0.03
Pairing type	-0.04	0.02	0.12	0.006
Estimated advisor performance	0.05	0.01	<0.001	0.18

trust, pairing type, and estimated performance as predictors.⁸ Again, we observed significant effects of advisor trust and estimated performance on average WOA. Whether the advisor trusted the participants themselves or someone else had no significant effect. Table 4 summarizes the results.

Note that in some of our studies, participants seemed to have used the advisor’s displays of trust or distrust as a signal of expected advice quality. In Studies 2 and 3, specifically, participants rated the performance of the trusting advisor as better than that of an advisor who displayed distrust, despite receiving identical advice in both conditions. The difference in perceived advice quality also mediated the relation between advisor trust and advice taking. However, in Study 1B, trust did not significantly affect advisor performance evaluations. To determine the overall effect of trust on perceptions of the advisor’s performance, we conducted a single-paper meta-analysis (SPM; McShane & Böckenholt, 2017). We included all conditions that presented high-knowledge advice from an advisor who was also the participant’s counterpart in the trust game. This includes all of Study 1b, the high knowledge condition in Study 2, and the direct reciprocity condition in Study 3. Results suggest that across the three studies, initial advisor trust had a significant effect on the estimated performance of the advisor. Participants estimated the performance of the trusting advisors as being better by 1.09 rounds, on average, of accurate advice than the performance of advisors who displayed distrust (*SE* = 0.33), a significant difference (95% CI [0.45 1.73]).

⁸We conducted the analysis on the direct reciprocity and advisor behavior conditions. In the decision-maker experience condition, the advisor did not take part in a trust game, therefore had no opportunity to display trust or distrust.

6.3. Discussion

The results of Study 3 advance our understanding of the process by which the advisor's trust behavior affects the decision-maker's response. First, they rule out the proposition that the mere experience of being trusted or distrusted significantly affects the responsiveness of people to the opinions of others. Absent information about the prior behavior of their advisor, participants who were trusted by another person just prior did not differ significantly from distrusted participants. We did, however, find support for two other accounts for the effect of advisors' trust on their persuasiveness. Participants followed the advice of a trusting advisor more than the advice of a more suspicious one. We observed this phenomenon when the advisor's behavior was directed toward the decision-maker and also when decision-makers observed the advisor trusting someone else. The latter finding suggests that there may be various factors driving the effect, in addition to considerations of reciprocity within the relationship with the advisor, as depicted in Social Exchange Theory.

Participants also estimated that trusting advisors performed significantly better than distrusting advisors. Nevertheless, the direct effect of advisor trust on advice-taking remained significant when adjusting for estimated performance, which suggests that other factors may also contribute to the effect.

7. Study 4

Study 4 had three main objectives. The first was to establish the external validity of the effect of advisor trust on advice-taking by testing it in a more realistic work setting. We recruited a sample of employed professionals and asked them about their attitudes and likely reactions in a typical decision setting at work. We devised a scenario in which a senior colleague either trusts or does not trust them with an important task and later advises them about an unrelated decision. Participants rated the likelihood that they would follow the colleague's advice.

Second, Study 4 expands the investigation of trust and advice taking to a matter of opinion, which does not have a clear correct answer and accuracy standard. As discussed earlier in the article, people seek advice for reasons other than improving decision quality. Therefore, in this study, we measured participants' willingness to follow advice given as an opinion, rather than as an estimate of a predetermined, objective value.

Finally, Study 4 continues the pursuit of the underlying mechanism of the effect. Studies 2 and 3 found that initial displays of trust and distrust by the advisor lead to different evaluations of the advisor's performance. Despite receiving the same advice in both conditions, decision-makers rated the advice of trusting advisors as more accurate than that of advisors who did not show trust. There could be several reasons for this effect. Inaccurate advice may be attributed, for example, to incomplete effort, harmful intentions or simply incompetence. In this study we measured the perceived attributes of the advisor (rather than of the advice). We asked participants to rate the advisor's competence, integrity and benevolence, which correspond to the three dimensions of trustworthiness (Mayer et al., 1995). Because the advisor's estimated performance did not fully account for the difference in advice taking in Studies 2 and 3, we also tested whether trustees wish to reciprocate the advisor's trust and do so by following the advisor's recommendation. We asked participants to rate their feelings of gratitude and indebtedness and their desire to do something good to the advisor in return for his behavior and tested whether these sentiments also mediate the effect.⁹

⁹We conducted a direct replication test of this study with a sample of 137 undergraduate management students. The study yielded similar effects as the ones found in the main study. We report the results in Appendix A.

7.1. Method

7.1.1. Participants and design

Our goal was to collect data until we obtained 200 valid responses, after exclusions. We recruited 207 currently employed individuals in Israel through the Midgam Project Web Panel service and paid them 2 NIS (\$0.55) each for participating. After excluding five participants (2.4% of the sample) who failed the attention check, the final sample included 202 participants (Mage = 32.88; work experience = 9.95 years; 104 females, 98 males). A power sensitivity analysis for a two-tailed independent-samples t-test with 90% power, given $\alpha = 0.05$, determined this sample sufficient for the detection of a minimum effect size of $d = 0.46$. The study used a 2-group (initial trust vs. distrust) design.

7.1.2. Manipulations and measures

The study included a scenario presented in two parts. Part 1 included the initial trust manipulation, an attention check, and an elicitation of participants' ratings of their motivation to reciprocate and of the advisor's attributes. Part 2 presented the decision context and the advisor's recommendation, after which we measured participants' willingness to follow the recommendation.

Initial trust manipulation. In Part 1 of the scenario participants read:

'Imagine you are a senior product manager at a high-tech company. Jonathan is the company's Chief Marketing Officer. Jonathan has been in the company longer and is more senior than you, although he is not your direct supervisor. One of the company's existing customers is interested in purchasing a subscription for a product for which your department is responsible. A meeting is scheduled between representatives from the company (including you) and executives from the customer's side. Before the meeting, your department and the marketing division are working hard to prepare a presentation of the product to the customer. Jonathan coordinates the preparations. You know that Jonathan is due to have a compensation conversation with the CEO soon, and the success of this sale could have a significant impact on his future salary. As the end of the preparations approaches, it is time to decide who will lead the product presentation to the customer. On one hand, you are the manager with the ultimate responsibility for the product and your department is the one who will work with the customer in case the deal closes. On the other hand, the marketing people have experience in customer acquisition'.

The trust version of the scenario ended with the following statement: 'Although Jonathan comes from Marketing, he decides that you will lead the presentation. Jonathan's decision shows that he trusts you to perform the presentation in the best way'. The distrust version read: 'Although Jonathan is aware of your knowledge of the product, he decides that one of the marketing managers will lead the presentation. Jonathan's decision shows that he does not trust you to perform the presentation in the best way'.

Part 1 of the scenario was followed by an attention check, asking participants whether Jonathan trusted them to lead the presentation to the customer, did not trust them or there was not enough information to determine the answer to this question. Participants who answered incorrectly ($n = 24$) were asked to read Part 1 a second time and then returned to the attention check. Those who failed a second time ($n = 5$) were bounced from the remainder of the study.¹⁰

Measures of motivation to reciprocate and advisor attributes. Participants rated on a scale of 1 (not at all) to 7 (very much) their agreement with the following statements: 'I would like to do something good to Jonathan for the way he treated me'; 'I feel indebted to Jonathan for the way he treated me'; and 'I am grateful to Jonathan for the way he treated me'. The items had high inter-item reliability (see Table 6), therefore we grouped them into one aggregate measure of motivation to reciprocate. Next, participants rated the personal attributes of the advisor. We used items from Mayer and Davis's (1999) questionnaire of dimensions of trustworthiness to measure the advisor's perceived

¹⁰The two-step attention check was required by the panel service. The responses of the 19 participants who passed the attention check on the second attempt were similar to those of the 183 who passed the first time and had no effect on the results.

Table 5. Descriptive statistics of perceptions of the advisor's competence, integrity, and benevolence, the motivation to positively reciprocate the advisor's behavior, and the estimated likelihood of advice taking in Study 4.

	Perceived competence		Perceived integrity		Perceived benevolence		Reciprocity motivation		Advice taking	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Distrust	4.10	1.45	2.84	1.19	2.55	1.29	2.09	1.30	4.46	2.06
Trust	4.81	1.18	4.61	1.16	4.19	1.36	4.93	1.42	5.62	1.62

competence ('Jonathan is very capable of performing his job'; 'Jonathan has much knowledge about the work that needs done'; 'I feel very confident about Jonathan's skills'), benevolence ('Jonathan is very concerned about my welfare'; 'My needs and desires are very important to Jonathan'; 'Jonathan would not knowingly do anything to hurt me'), and integrity ('Jonathan has a strong sense of justice'; 'I never have to wonder whether Jonathan will stick to his word'; 'Jonathan tries hard to be fair in dealings with others'). Participants responded on the same 7-point scale as the reciprocity motivation measure. The items displayed high inter-item reliability within each category (see Table 6), therefore we grouped them into three aggregate measures representing the three attributes.

Advice-taking measure. Part 2 of the scenario articulated that a month after the presentation to the client, the participants' department is recruiting a user experience (UX) designer. Two candidates have reached the final stage of the selection process, which includes submitting a portfolio (samples of past work), completing a home assignment, and a personal interview. We provided information about the two candidates, counterbalancing their specific attributes. One candidate had an overall experience of 6 years, whereas the other had only 3 years' experience but in a more relevant domain. One candidate's portfolio was richer, the other submitted a better home assignment, and both candidates made a good impression in the personal interview. Participants then read that 'on the morning after the interviews you talk with a few other managers by the coffee machine, telling them about the two candidates. Jonathan, who is also present, says that [one of the candidates, counterbalanced] sounds to him like a better candidate and advises you to hire that candidate'. We then asked participants to rate the likelihood that they would choose the candidate in accordance with Jonathan's advice. Participants responded on a scale ranging from 1 (No chance) to 9 (Definitely).

7.2. Results

7.2.1. Effect of initial trust on perceived advisor attributes and motivation to reciprocate

We compared attitudes toward Jonathan (the CMO) between the trust and distrust conditions with independent-samples t-tests. Participants rated Jonathan as more competent, more benevolent, and having higher integrity after he trusted them than when he had initially not shown trust ($t_s \geq 3.79$, $p_s < 0.001$, $d_s \geq 0.54$). They also had greater motivation to positively reciprocate Jonathan's behavior ($t(198.94) = 14.88$, $p < 0.01$, $d = 2.10$). Table 5 presents the group means of each measure.

7.2.2. Effect of initial trust on advice-taking

Table 5 presents the likelihood that participants would follow Jonathan's advice in each condition. As predicted, participants estimated a significantly higher likelihood of following the advice after being trusted by Jonathan than after being distrusted ($t[187.55] = 4.43$, $p < 0.001$, $d = 0.63$). We compared these likelihood ratings to the point of indifference (i.e., the midpoint of the likelihood scale), to determine whether participants rated the possibility that they would follow the advice as significantly likely or unlikely. We conducted two one-sampled t-tests, one for each condition. The estimated

Table 6. Correlations between perceived advisor attributers, reciprocity motivation, and estimated likelihood of following the advisor's advice in Study 4.

		<i>M</i>	<i>SD</i>	1	2	3	4	5
1.	Perceived competence	4.46	1.36	0.83	0.77	0.63	0.53	0.51
2.	Perceived integrity	3.74	1.47	0.62	0.77	1.00	0.94	0.49
3.	Perceived benevolence	3.38	1.56	0.53	0.83	0.85	0.86	0.46
4.	Reciprocity motivation	3.52	1.97	0.46	0.78	0.75	0.90	0.44
5.	Advice taking	5.04	1.94	0.46	0.43	0.42	0.42	1.00

Note: *M* and *SD* represent mean and standard deviation, respectively. Disattenuated correlations appear above the diagonal, while values on the diagonal represent reliability (Guttman's lambda 6). A conservative value of 1.00 was used for advice-taking as it was a single-item response. All correlations in the table are statistically significant ($p < 0.001$).

likelihood of following Jonathan's recommendation was significantly higher than the midpoint of the scale when Jonathan trusted them ($t[101] = 3.86, p < 0.001$) and significantly lower than the midpoint when Jonathan distrusted them ($t(99) = -2.62, p = 0.01$).

7.2.3. Relations between advisor trust, perceived advisor attributes, motivation to reciprocate, and advice taking

We tested the relations between all variables using a mediation analysis. Table 6 presents the correlations between them.

We conducted 5000 bootstrapped estimates of mediation (Hayes, 2013; model 4), with advice taking as the dependent variable, initial trust as the predictor variable, and perceived competence, perceived integrity, perceived benevolence, and the motivation to reciprocate as the four mediators. The analysis found a significant mediation effect of the perceived competence of the advisor, but not of the other proposed mediators. Table 7a summarizes the results of the analysis. Because the high correlations between perceived benevolence, perceived integrity, and participants' motivation to reciprocate suggests the existence of multicollinearity, we collapsed these three measures into one and conducted an additional analysis with advice taking as the dependent variable, advisor trust as the predictor and two mediators, namely perceived competence and the average of perceived benevolence, perceived integrity and reciprocity motivation. As Table 7b shows, this analysis found significant effects for both mediators.

The mediation analysis highlights two key pathways for the effect of advisor trust on advice-taking: how competent the advisor seems and advisees' motivation to reciprocate (including their perceptions of the advisor's benevolence and integrity). However, since we measured rather than manipulated these mediators, we must be cautious about drawing definitive causal conclusions. We cannot eliminate the possibility that both participants' attitudes and behavior stemmed from some other underlying factor that we did not measure. Despite these limitations in establishing causality, our research demonstrates clear connections between advisor trust and both participants' perceptions of the advisor's competence (and performance, as shown in Studies 1-3) and their motivation to reciprocate, which in turn relate to greater willingness to follow the advisor's recommendations.

7.3. Discussion

Study 4 demonstrates that the effect of advisor trust on advice-taking is not limited to the experimental paradigms of the trust game and judge advisor system. Whereas Studies 1-3 provided a clean test of the effect of advisor trust, in Study 4 we observed the effect in people with professional experience in a realistic and relevant setting. Also, unlike in Studies 1-3, where being trusted included receiving some material resources, in Study 4 the trust manipulation had no implications for participants' financial outcomes.

Study 4 also elucidates the process by which the advisor's initial behavior toward the decision-maker affects the willingness to follow advice. Trusted decision-makers perceived the trustor more favorably and reported a higher motivation to reciprocate than people who felt distrusted. This finding is consistent with the results of Studies 2 and 3 regarding the relations between advisor trust, perceived advisor performance, and advice taking. Whereas in Studies 2 and 3 participants rated the advisor's performance after the advice-taking task, in Study 4 they rated attributes of the advisor that are associated with variations in performance before receiving the advice.

Note that Jonathan's choice of person to present the product to the client can carry additional interpretations that may affect participants' willingness to take his advice. Jonathan may be perceived as arrogant for preferring a person from his own division or as an incompetent manager who does not know enough about the advantages of having a product manager present a product to a client. These attributions might affect advice-taking regardless of trust. We attempted to address these issues by explicitly telling participants that Jonathan's behavior signals his trust or distrust in their ability, but we cannot completely refute the possibility that these additional interpretations also played a role in participants' responses.

Table 7. Direct and indirect effects of advisor trust on advice taking in Study 4. Each row represents a regression analysis of the outcome variable by the listed predictor or predictors, whereas the mediation section presents analysis of indirect effects.

(a) Model with each mediator variable inserted separately.					
Outcome variable	Predictor	Coefficient (unstandardized)	95%	CI	<i>p</i>
Perceived competence	Initial advisor trust	0.70	0.34	1.07	<0.001
	Perceived integrity	1.77	1.45	2.10	<0.001
Perceived benevolence	Initial advisor trust	1.64	1.27	2.00	<0.001
	Reciprocity motivation	2.85	2.47	3.23	<0.001
Advice taking	Initial advisor trust	0.19	-0.50	0.88	0.59
	Perceived competence	0.48	0.26	0.70	<0.001
	Perceived integrity	-0.08	-0.42	0.27	0.67
	Perceived benevolence	0.16	-0.12	0.45	0.26
	Reciprocity motivation	0.18	-0.05	0.41	0.13
Mediation	Perceived competence	0.34	0.11	0.62	sig.
	Perceived integrity	-0.13	-0.79	0.52	ns
	Perceived benevolence	0.27	-0.25	0.78	ns
	Reciprocity motivation	0.50	-0.20	1.21	ns

Table 7. (Continued).

(b) Model with a composite mediator variable aggregating reciprocity motivation and perceived integrity and benevolence.

Outcome variable	Predictor	Coefficient		CI	p
		(unstandardized)	95%		
Perceived competence	Initial advisor trust	0.70	0.34	1.07	<0.001
	Reciprocity and perceived integrity and benevolence				
Advice taking	Initial advisor trust	2.09	1.77	2.40	<0.001
	Predictor				
	Initial advisor trust	0.21	-0.43	0.85	0.52
	Perceived competence	0.44	0.23	0.65	<0.001
Mediation	Reciprocity and perceived integrity and benevolence	0.31	0.06	0.55	0.01
	Perceived competence	0.31	0.09	0.60	sig.
	Reciprocity and perceived integrity and benevolence	0.64	0.11	1.25	sig.

8. General discussion

The literature on advice-taking generally assumes that people determine their willingness to follow advice by considering factors that predict its accuracy. Some factors, such as domain expertise and past performance, are indeed predictive of advice quality. Other factors, such as the confidence the advisor expresses in the advice, are unrelated to the likelihood of the advice being accurate but often affect advisees’ perceptions of advice quality nonetheless (Price & Stone, 2004; Pulford et al., 2018). In our research, we find that displays of trust and distrust in another person before advising them affect the degree to which the person follows the advice. Decision-makers rated the advisor’s personal attributes and advice performance differently, depending on whether the advisor had initially trusted or distrusted them in an unrelated situation. Trusted decision-makers also reported a higher motivation to act positively toward their advisor. Consequently, the same advice had a greater influence on participants’ final decisions following trust than it did after distrust.

The idea that a trusting advisor may actually provide better advice is not farfetched. People who see themselves as trustworthy might evaluate the decision of an advisor to trust them as correct, and by extension perceive the advisor as generally competent. They may also perceive the advisor’s trust as a sign of virtue or cooperative intentions and expect these qualities to manifest in the advisor’s goodwill and effort to provide high-quality advice.

The design of our studies, however, makes it difficult for participants to reasonably maintain this line of thinking. Advisors had no information about decision-makers, therefore the choice between trusting or not trusting had nothing to do with a personal evaluation of the trustee. Moreover, advisors’ only incentive was to provide accurate advice, and they did not benefit in any way from having their advice followed. Participants were aware of these facts. Also, following advice did not always help decision-makers. In Study 2, decision-makers overweighed the advice of a trusting advisor who was less knowledgeable than they were. In Study 1 they relied more on trusting advisors despite not perceiving them as more competent than distrusting advisors. These results suggest that while perceived

competence explains some of the effect, it is likely not the only factor underlying the effect of advisor trust on advice-taking.

8.1. Theoretical implications

Our findings contribute to the fields of advice-taking and trust. First, while previous work considered the relation between decision-makers' trust in their advisors and their propensity to take advice, we focused on how *the advisor's trust in the decision-maker* affected advice-taking. While the effect of trust in this direction is less intuitive, it nonetheless emerged in the behavior of trustees. Participants responded to high trust with greater advice-taking and to low trust with an inclination to discount the advice. Our studies bring these insights to the fields of experimental economics and decision-making, and identify additional effects on the way the trustee perceives the trustor.

Second, our findings expand the literature on social inferences in decision-making. The results suggest that advice takers use advisors' trusting behavior in determining the extent to which they wish to rely on their advice. Importantly, this behavior does not necessarily help in maximizing accuracy, although participants generally rated the advice of the trusting advisors as more accurate and the advisors themselves as more competent than distrusting ones.

Finally, our studies contribute to research on the trust game. Whereas the trust game is typically used to measure trust (and trustworthiness), thus treating trust as a dependent variable, we used it to manipulate trust as an independent variable, demonstrating the consequences of players' behavior in the trust game beyond the game itself.

8.2. Practical implications

Our studies offer insight for managers, advisors, and consultants, whose professional success depends on their credibility. Establishing and maintaining credibility and trustworthiness typically takes time, experience, and effort, and any means of achieving it more quickly would be valuable to these professionals. The present research identifies a sensitivity in decision-makers to the advisor's trust behavior. Advisors can boost their credibility as sources of information, or quickly lose credibility, depending on the level of trust they show decision-makers before advising them.

This article also demonstrates the ability of trust to transcend situations and contexts. In all our studies, initial trust in one domain affected advice taking in a different domain. In long-term relationships, this is expected. Spouses cohabit, raise children, and make financial decisions that affect both themselves and their partners. Friends help and seek help, share secrets, and make promises to each other. Trust, by definition, is embedded in these relationships (Hart et al., 2024), and trustworthiness in one situation naturally affects perceptions of trust in other situations. However, in the present research, we find that people are sensitive to trust even outside their relationship with the trustor. As Study 3 demonstrated, decision-makers also consider whether their advisor trusted or distrusted an unrelated person. This finding suggests that trust can have both direct and indirect benefits for people's interactions and relationships.

To decision-makers, our results send a cautionary message. When their primary objective is to make a correct decision or an accurate prediction, decision-makers might be better off finding alternative ways to gauge the advisor's competence or to reciprocate their advisor's trust and distrust. Otherwise, they might find themselves rejecting informative advice from a distrusting advisor or following advice that may lead them astray after a show of trust from their advisor.

8.3. Limitations and directions for future research

Our studies used experimental settings and employed a rather strong trust manipulation to demonstrate a basic effect on advice-taking behavior. In real life, displays of trust and distrust tend to be more

subtle. Their effects evolve over time and are prone to contextual influences. Single-measure behavioral experiments such as ours, and the trust manipulations they use, which are based on one-shot games, have a limited ability to detect such nuanced effects.

Second, the level of trust necessary to affect advice-taking may vary between situations, or between individuals and their expectations of trust from others (Baer et al., 2021). People generally have a stronger tendency to trust others than to mistrust them (Katzir & Posten, 2023; Sniezek & Van Swol, 2001), and may expect the same from others. At the same time, they sometimes show an aversion to being trusted more than they expect or wish (Baer et al., 2015, 2021). Therefore, some people may be swayed more by trusting behavior and others by displays of caution. To the extent that such behavioral patterns exist, our studies were blind to them.

9. Conclusion

Across five studies, we found that people associate a person's display of trust and distrust with the quality of that person's advice. As a result, they exhibit a greater willingness to follow advice from a trusting advisor than from a distrusting one. We observed these patterns when the advice was highly informed and also when it was based on relatively little knowledge. Advice takers were sensitive to the advisor's trust even when they themselves were not the targets of trust, suggesting that the effect is rooted in the advisor's behavior rather than in their experience of being trusted versus distrusted. Our results suggest that showing trust in others affects people's willingness to accept one's advice and that to be persuasive, we should trust others first.

Data availability statement. Data and code are available <https://researchbox.org/918>.

Acknowledgements. We would like to thank Ivan Soraperra for generously helping with the formulation of optimal *WOA* in Appendix B, Enav Friedmann and Coby Morvinski for providing feedback on earlier versions of this article, and Moral Fridberg, Dar Kubi, Bar Rubinstein, Maria Tokarev, and Elinor Yogeve for help with data collection.

Funding statement. This research was supported by the Israel Science Foundation under Grant number 2354/21 and by the Henry Crown Institute of Business Research in Israel.

Competing interest. The authors have no competing interests to report.

References

- Ashraf, N., Bohnet, I., & Piankov, N. (2006). Decomposing trust and trustworthiness. *Experimental Economics*, 193–208.
- Baer, M. D., Dhensa-Kahlon, R. K., Colquitt, J. A., Rodell, J. B., Outlaw, R., & Long, D. M. (2015). Uneasy lies the head that bears the trust: The effects of feeling trusted on emotional exhaustion. *The Academy of Management Journal*, 58(6), 1637–1657.
- Baer, M. D., Frank, E. L., Matta, F. K., Luciano, M. M., & Wellman, N. (2021). Undertrusted, overtrusted, or just right? The fairness of (in)congruence between trust wanted and trust received. *Academy of Management Journal*, 64(1), 180–206. <https://doi.org/10.5465/amj.2018.0334>.
- Banerjee, S., Galizzi, M. M., & Hortala-Vallve, R. (2021). Trusting the trust game: An external validity analysis with a UK representative sample. *Games*, 12(66). <https://doi.org/10.3390/g12030066>.
- Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review*, 103(1), 5–33.
- Bencsik, A., Jakubik, M., & Juhasz, T. (2020). The economic consequences of trust and distrust in knowledge-intensive organizations. *Journal of Competitiveness*, 12(3), 28–46.
- Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. *Games and Economic Behavior*, 10, 122–142.
- Blunden, H., Logg, J. M., Brooks, A. W., John, L. K., & Gino, F. (2019). Seeker beware: The interpersonal costs of ignoring advice. *Organizational Behavior and Human Decision Processes*, 150, 83–100. <https://doi.org/10.1016/j.obhdp.2018.12.002>.
- Bonaccio, S., & Dalal, R. S. (2006). Advice taking and decision-making: An integrative literature review, and implications for the organizational sciences. *Organizational Behavior and Human Decision Processes*, 101(2), 127–151. <https://doi.org/10.1016/j.obhdp.2006.07.001>.
- Briggs, P., Burford, B., De Angeli, A., & Lynch, P. (2002). Trust in online advice. *Social Science Computer Review*, 20(3), 321–332. <https://doi.org/10.1177/08944393020000309>.

- Brower, H. H., Lester, S. W., Korsgaard, M. A., & Dineen, B. R. (2009). A closer look at trust between managers and subordinates: Understanding the effects of both trusting and being trusted on subordinate outcomes. *Journal of Management*, 35(2), 327–347. <https://doi.org/10.1177/0149206307312511>.
- Brown, J. D. (2011). Understanding the better than average effect: Motives (still) matter. *Personality & Social Psychology Bulletin*, 38(2), 209–219. <https://doi.org/10.1177/0146167211432763>.
- Camerer, C. F. (2011). *Behavioral Game Theory: Experiments in Strategic Interaction*. Princeton University Press.
- Chen, X., Zhu, Z., & Liu, J. (2021). Does a trusted leader always behave better? The relationship between leader feeling trusted by employees and benevolent and Laissez-Faire leadership behaviors. *Journal of Business Ethics*, 170(3), 615–634. <https://doi.org/10.1007/s10551-019-04390-7>.
- Ciriolo, E. (2007). Inequity aversion and trustees' reciprocity in the trust game. *European Journal of Political Economy*, 23(4), 1007–1024. <https://doi.org/10.1016/j.ejpoleco.2006.01.001>.
- Collins, N. L., & Miller, L. C. (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, 116(3), 457–475.
- Cook, K. S., Levi, M., & Hardin, R. (2009). *Whom can we trust?: How groups, networks, and institutions make trust possible*. Russell Sage Foundation.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>.
- Dalal, R. S., & Bonaccio, S. (2010). What types of advice do decision-makers prefer? *Organizational Behavior and Human Decision Processes*, 112(1), 11–23. <https://doi.org/10.1016/j.obhdp.2009.11.007>.
- Dunning, D., Fetchenhauer, D., & Schlösser, T. (2019). Why people trust: Solved puzzles and open mysteries. *Current Directions in Psychological Science*, 28(4), 366–371. <https://doi.org/10.1177/0963721419838255>.
- Fehr, E., & Gächter, S. (2000). Fairness and retaliation: The economics of reciprocity. *Journal of Economic Perspectives*, 14(3), 159–181. <https://doi.org/10.1257/jep.14.3.159>.
- Ferrin, D. L., Bligh, M. C., & Kohles, J. C. (2007). Can I trust you to trust me?: A theory of trust, monitoring, and cooperation in interpersonal and intergroup relationships. *Group & Organization Management*, 32(4), 465–499.
- Göbel, M., Vogel, R., & Weber, C. (2013). Management research on reciprocity: A review of the literature. *Business Research*, 6(1), 34–53. <https://doi.org/10.1007/BF03342741>.
- Goldsmith, D. J., & Fitch, K. (1997). The normative context of advice as social support. *Human Communication Research*, 23(4), 454–476. <https://doi.org/10.1111/j.1468-2958.1997.tb00406.x>.
- Haran, U., Mazar, A., Hurwitz, M., & Moran, S. (2022). Confidently at your service: Advisors alter their stated confidence to be helpful. *Organizational Behavior and Human Decision Processes*, 171(April), 104154. <https://doi.org/10.1016/j.obhdp.2022.104154>.
- Haran, U., & Shalvi, S. (2020). The implicit honesty premium: Why honest advice is more persuasive than highly informed advice. *Journal of Experimental Psychology: General*, 149(4), 757–773. <https://doi.org/10.1037/xge0000677>.
- Hart, E., VanEpps, E. M., Yudkin, D. A., & Schweitzer, M. E. (2024). The interpersonal costs of revealing others' secrets. *Journal of Experimental Social Psychology*, 110, 104541. <https://doi.org/10.1016/j.jesp.2023.104541>
- Harvey, N., & Fischer, I. (1997). Taking advice: Accepting help, improving judgment, and sharing responsibility. *Organizational Behavior and Human Decision Processes*, 70(2), 117–133. <https://doi.org/10.1006/obhd.1997.2697>.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. The Guilford Press.
- Hertz, U., Bahrami, B., & Keramati, M. (2018). Stochastic satisficing account of confidence in uncertain value-based decisions. *PLOS ONE*, 13(4), e0195399. <https://doi.org/10.1371/journal.pone.0195399>.
- Johnson, N. D., & Mislin, A. A. (2011). Trust games: A meta-analysis. *Journal of Economic Psychology*, 32(5), 865–889. <https://doi.org/10.1016/j.joep.2011.05.007>.
- Kämmer, J. E., Choshen-Hillel, S., Müller-Trede, J., Black, S. L., & Weibler, J. (2023). A systematic review of empirical studies on advice-based decisions in behavioral and organizational research. *Decision*, 10(2), 107–137. <https://doi.org/10.1037/dec0000199>.
- Karlan, D. S. (2005). Using experimental economics to measure social capital and predict financial decisions. *American Economic Review*, 95(5), 1688–1699. <https://doi.org/10.1257/000282805775014407>.
- Katzir, M., & Posten, A.-C. (2023). Are there dominant response tendencies for social reactions? Trust trumps mistrust—evidence from a Dominant Behavior Measure (DBM). *Journal of Personality and Social Psychology*. <https://doi.org/10.1037/pspa0000334>.
- Lachance, M.-E., & Tang, N. (2012). Financial advice and trust. *Financial Services Review*, 21(3), 209–226.
- Langfred, C. W. (2007). The downside of self-management: A longitudinal study of the effects of conflict on trust, autonomy, and task interdependence in self-managing teams. *Academy of Management Journal*, 50, 885–900.
- Lau, D. C., Lam, L. W., & Wen, S. S. (2014). Examining the effects of feeling trusted by supervisors in the workplace: A self-evaluative perspective. *Journal of Organizational Behavior*, 35(1), 112–127. <https://doi.org/10.1002/job.1861>.
- Levine, E. E., & Schweitzer, M. E. (2015). Prosocial lies: When deception breeds trust. *Organizational Behavior and Human Decision Processes*, 126, 88–106. <https://doi.org/10.1016/j.obhdp.2014.10.007>.
- Lewicki, R. J., McAllister, D. J., & Bies, R. I. (1998). Trust and distrust: New relationships and realities. *Academy of Management Review*, 23(3), 438–458. <https://doi.org/10.5465/AMR.1998.926620>.

- Li, A. N., & Tan, H. H. (2013). What happens when you trust your supervisor? Mediators of individual performance in trust relationships. *Journal of Organizational Behavior*, 34(3), 407–425.
- Logg, J. M., Haran, U., & Moore, D. A. (2018). Is overconfidence a motivated bias? Experimental evidence. *Journal of Experimental Psychology: General*, 147(10), 1445–1465. <https://doi.org/10.1037/xge0000500>.
- Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, 84, 123–136. <https://doi.org/10.1037/0021-9010.84.1.123>.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709–734. <https://doi.org/10.5465/AMR.1995.9508080335>.
- Mayer, R. C., & Gavin, M. B. (2005). Trust in management and performance: Who minds the shop while the employees watch the boss? *Academy of Management Journal*, 48(5), 874–888. <https://doi.org/10.5465/AMJ.2005.18803928>.
- McDonald, M. L., & Westphal, J. D. (2003). Getting by with the advice of their friends: CEOs' advice networks and firms' strategic responses to poor performance. *Administrative Science Quarterly*, 48(1), 1–32. <https://doi.org/10.2307/3556617>.
- McShane, B. B., & Böckenholt, U. (2017). Single Paper Meta-analysis: Benefits for Study Summary, Theory-testing, and Replicability. *Journal of Consumer Research*, 43(October), ucw085. <https://doi.org/10.1093/jcr/ucw085>.
- Meshi, D., Biele, G., Korn, C. W., & Heekeren, H. R. (2012). How expert advice influences decision making. *PLoS ONE*, 7(11), 1–12. <https://doi.org/10.1371/journal.pone.0049748>.
- Milyavsky, M., & Gvili, Y. (2024). Advice taking vs. combining opinions: Framing social information as advice increases source's perceived helping intentions, trust, and influence. *Organizational Behavior and Human Decision Processes*, 183, 104328. <https://doi.org/10.1016/j.obhdp.2024.104328>.
- Minson, J. A., & Mueller, J. S. (2012). The cost of collaboration: Why joint decision making exacerbates rejection of outside information. *Psychological Science*, 23(3), 219–224. <https://doi.org/10.1177/0956797611429132>
- Molm, L. D. (2003). Theoretical comparisons of forms of exchange. *Sociological Theory*, 21(1), 1–17. <https://doi.org/10.1111/1467-9558.00171>.
- Mooijman, M., Van Dijk, W. W., Van Dijk, E., & Ellemers, N. (2017). On sanction-goal justifications: How and why deterrence justifications undermine rule compliance. *Journal of Personality and Social Psychology*, 112(4), 577–588. <https://doi.org/10.1037/pspi0000084>.
- Müller-Trede, J., Choshen-Hillel, S., Barneron, M., & Yaniv, I. (2018). The wisdom of crowds in matters of taste. *Management Science*, 64(4), 1779–1803. <https://doi.org/10.1287/mnsc.2016.2660>.
- Palvia, P. (2009). The role of trust in e-commerce relational exchange: A unified model. *Information and Management*, 46(4), 213–220. <https://doi.org/10.1016/j.im.2009.02.003>.
- Pescetelli, N., & Yeung, N. (2021). The role of decision confidence in advice-taking and trust formation. *Journal of Experimental Psychology: General*, 150(3), 507–526. <https://doi.org/10.1037/xge0000960>.
- Pierce, J. L., & Gardner, D. G. (2004). Self-Esteem within the work and organizational context: a review of the organization-based self-esteem literature. *Journal of Management*, 30(5), 591–622. <https://doi.org/10.1016/j.jm.2003.10.001>.
- Price, P. C., & Stone, E. R. (2004). Intuitive evaluation of likelihood judgment producers: Evidence for a confidence heuristic. *Journal of Behavioral Decision Making*, 17(1), 39–57. <https://doi.org/10.1002/bdm.460>.
- Pulford, B. D., Colman, A. M., & Krockow, E. M. (2018). The persuasive power of knowledge: Testing the confidence heuristic. *Journal of Experimental Psychology: General*, 147(10), 1431–1444. <https://doi.org/10.1037/xge0000471.suppl>.
- Radzevick, J. R., & Moore, D. A. (2011). Competing to be certain (but wrong): Market dynamics and excessive confidence in judgment. *Management Science*, 57(1), 93–106. <https://doi.org/10.1287/mnsc.1100.1255>.
- Redd, S. B. (2002). The influence of advisers on foreign policy decision making. *Journal of Conflict Resolution*, 46, 335–364.
- Salamon, S. D., & Robinson, S. L. (2008). Trust that binds: The impact of collective felt trust on organizational performance. *Journal of Applied Psychology*, 93(3), 593–601. <https://doi.org/10.1037/0021-9010.93.3.593>.
- Schweitzer, M. E., Hershey, J. C., & Bradlow, E. T. (2006). Promises and lies: Restoring violated trust. *Organizational Behavior and Human Decision Processes*, 101(1), 1–19. <https://doi.org/10.1016/j.obhdp.2006.05.005>.
- Sillence, E., Briggs, P., Harris, P., & Fishwick, L. (2006). A framework for understanding trust factors in web-based health advice. *International Journal of Human-Computer Studies*, 64(8), 697–713. <https://doi.org/10.1016/j.ijhcs.2006.02.007>.
- Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, 85, 102–111. <https://doi.org/10.1037/0021-9010.85.1.102>.
- Sniezek, J. A., & Buckley, T. (1995). Cueing and cognitive conflict in judge-advisor decision making. *Organizational Behavior and Human Decision Processes*, 62(2), 159–174. <https://doi.org/10.1006/obhd.1995.1040>.
- Sniezek, J. A., Schrah, G. E., & Dalal, R. S. (2004). Improving judgement with prepaid expert advice. *Journal of Behavioral Decision Making*, 17(3), 173–190. <https://doi.org/10.1002/bdm.468>.
- Sniezek, J. A., & Van Swol, L. M. (2001). Trust, confidence, and expertise in a judge-advisor system. *Organizational Behavior and Human Decision Processes*, 84(2), 288–307. <https://doi.org/10.1006/obhd.2000.2926>.
- Soll, J. B., & Larrick, R. P. (2009). Strategies for revising judgment: How (and how well) people use others' opinions. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 35(3), 780–805. <https://doi.org/10.1037/a0015145>.
- Sperber, D., Clement, F., Heintz, C., Mascaro, O., Mercier, H., Origg, G., & Wilson, D. (2010). Epistemic vigilance. *Mind & Language*, 25(4), 359–393.
- Stucke, T. S., & Sporer, S. L. (2002). When a grandiose self-image is threatened: Narcissism and self-concept clarity as predictors of negative emotions and aggression following judgment ego-threat. *Journal of Personality*, 70(4), 509–532. <https://doi.org/10.1111/1467-6494.05015>.

- Van Zant, A. B. (2021). Strategically overconfident (to a fault): How self-promotion motivates advisor confidence. *Journal of Applied Psychology*, *107*(1), 109–129. <https://doi.org/10.1037/apl0000879>.
- Wang, X., & Du, X. (2018). Why does advice discounting occur? The combined roles of confidence and trust. *Frontiers in Psychology*, *9*. <https://doi.org/10.3389/fpsyg.2018.02381>.
- White, T. B. (2005). Consumer trust and advice acceptance: The moderating roles of benevolence, expertise, and negative emotions. *Journal of Consumer Psychology*, *15*(2), 141–148. https://doi.org/10.1207/s15327663jcp1502_6.
- Yaniv, I. (2004). Receiving other people's advice: Influence and benefit. *Organizational Behavior and Human Decision Processes*, *93*(1), 1–13.
- Yaniv, I., & Choshen-Hillel, S. (2012). Exploiting the wisdom of others to make better decisions: Suspending judgment reduces egocentrism and increases accuracy. *Journal of Behavioral Decision Making*, *25*(5), 427–434. <https://doi.org/10.1002/bdm.740>.
- Yaniv, I., & Milyavsky, M. (2007). Using advice from multiple sources to revise and improve judgments. *Organizational Behavior and Human Decision Processes*, *103*(1), 104–120. <https://doi.org/10.1016/j.obhdp.2006.05.006>.

A. Appendix A

A.1. Study 1A

Table A1. Preregistered analysis: Results of independent-samples *t* tests of confidence adjustment by initial advisor trust on confidence adjustment values winsorized at -1 (i.e., coded values lower than -1 as -1) in Study 1A.

Condition	Mean	SD	<i>t</i>	<i>p</i>	<i>d</i>
Trust	0.39	0.26	3.65	< .001	0.54
Distrust	0.25	0.25			

A.2. Study 1B

Table A2. Preregistered analysis: Results of a mixed model ANOVA of WOA by initial advisor trust on WOA values winsorized at -1 and 1 (i.e., coded values lower than -1 as -1 and values higher than 1 as 1) in Study 1B.

Condition	Mean	SD	<i>F</i>	<i>p</i>	η^2
Trust	0.71	0.35	15.37	< .001	0.07
Distrust	0.56	0.38			

A.3. Study 2

Table A3. Preregistered analysis: Results of mixed model regressions of WOA by advisor knowledge and initial advisor trust, with participant ID as a random effect and estimated advisor performance as a covariate, on WOA values in Study 2.

	<i>B</i>	<i>SE</i>	<i>p</i>
Advisor knowledge	0.18	0.03	< .001
Initial advisor trust	0.08	0.03	.01
Interaction	0.01	0.04	.83
Estimated advisor performance	0.04	0.01	< .001
High knowledge condition:			
Initial advisor trust	0.08	0.04	.03
Estimated advisor performance	0.05	0.01	< .001
Low knowledge condition:			
Initial advisor trust	0.09	0.03	.003
Estimated advisor performance	0.03	0.01	< .001

Table A4. Means of the proportion of the points participants received in the trust game, after multiplication, which they transferred back to their partners, and the correlations of these proportions with their average WOA in Study 2.

Trust condition	Advisor knowledge condition	Proportion of points returned	SD	Correlation between WOA and points returned	<i>p</i>
Trust	High	0.47	0.17	0.24	.02
	Low	0.47	0.12	0.15	.14
Distrust	High	0.16	0.24	−0.08	.39
	Low	0.13	0.28	0.13	.21

Note: Advisor knowledge effect on points returned was nonsignificant ($t < 1$) in both trust and distrust conditions.

A.4. Study 3

Table A5. Preregistered analysis: Results of mixed model regressions of WOA by initial advisor trust, with participant ID as a random effect and estimated advisor performance as a covariate, on WOA values within each relationship type condition in Study 3.

	<i>b</i>	<i>SE</i>	<i>p</i>
Direct reciprocity			
Initial advisor trust	0.14	0.03	< .001
Estimated advisor performance	0.05	0.01	< .001
Advisor behavior			
Initial advisor trust	0.08	0.04	.02
Estimated advisor performance	0.04	0.01	< .001
Decision-maker experience			
Initial advisor trust	0.03	0.03	.34
Estimated advisor performance	0.05	0.01	< .001

Table A6. Means of the proportion of the points participants received in the trust game, after multiplication, which they transferred back to their partners, and the correlations of these proportions with their average WOA in Study 3.

Trust condition	Pairing type	Proportion of points returned		Correlation between WOA and points returned	
		Mean	SD	<i>r</i>	<i>p</i>
Trust	Direct	0.45	0.21	−0.14	.16
	Advisor behavior	0.50	0.09	−0.14	.16
	Decision-maker experience	0.46	0.18	0.07	.48
Distrust	Direct	0.18	0.31	0.13	.18
	Advisor behavior	0.11	0.24	0.04	.68
	Decision-maker experience	0.11	0.24	−0.15	.15

A.5. Study 4: Replication

We conducted the study among 137 undergraduate students of management at a large Israeli university (*Mage* = 24.61; 110 females, 27 males), who participated in exchange for course credit. We attached our study to another study that was run concurrently and collected data for as long as that study remained open. Four participants failed the attention check; therefore, our final sample included 133 participants. A power sensitivity analysis for a two-tailed independent-samples *t* test with 90% power, given $\alpha = .05$, suggests that a sample of this size allows the detection of a minimum effect size of $d = 0.57$. The study employed the same design and used the same procedure as the main study.

A.6. Results

Participants estimated a significantly higher likelihood of following the advisor’s advice after being trusted by the advisor ($M = 5.76, SD = 1.44$) than after being distrusted ($M = 4.49, SD = 1.97; t(116.91) = 4.22, p < .001, d = 0.74$). Independent-samples t tests found that showing trust resulted in more favorable perceptions of all qualities of the trustor, compared to showing distrust ($ts \geq 4.42, ps < .001, ds \geq 0.78$), as well as in greater motivation to positively reciprocate ($t(129.78) = 15.64, p < .001, d = 2.73$). [Table A7](#) presents the group means of each measure and [Table A8](#) presents the correlations between all variables.

Table A7. Descriptive statistics of perceptions of the advisor’s competence, integrity, and benevolence and the motivation to positively reciprocate the advisor’s behavior in Study 4.

Condition	Perceived competence		Perceived integrity		Perceived benevolence		Reciprocity motivation	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Distrust	3.85	1.34	2.70	1.16	2.43	1.08	2.00	0.95
Trust	4.75	0.95	4.36	0.85	4.16	1.15	4.78	1.10

Table A8. Correlations between perceived advisor attributers, reciprocity motivation, and estimated likelihood of following the advisor’s advice in Study 4’s replication.

	M	SD	1	2	3	4	5
1. Perceived competence	4.46	1.36	.80	.82	.73	.50	.60
2. Perceived integrity	3.74	1.47	.63	.76	1.00	.91	.52
3. Perceived benevolence	3.38	1.56	.59	.82	.82	.93	.54
4. Reciprocity motivation	3.52	1.97	.42	.74	.79	.86	.47
5. Advice taking	5.04	1.94	.54	.45	.49	.41	1.00

Note: M and SD represent mean and standard deviation, respectively. Disattenuated correlations appear above the diagonal, while values on the diagonal represent reliability (Guttman’s lambda 6). A conservative value of 1.00 was used for advice taking because it was a single-item response. All correlations are statistically significant ($ps < .001$).

We conducted 5000 bootstrapped estimates of mediation (Hayes, 2013; model 4), with advice taking as the dependent variable, initial trust as the predictor variable, and perceived competence, perceived integrity, perceived benevolence, and the motivation to reciprocate as the four mediators. The analysis found a significant mediation effect of the perceived competence of the advisor, but not of the other proposed mediators. [Table A9\(i\)](#) summarizes the results of the analysis. Because the high correlations between perceived benevolence, perceived integrity and participants’ motivation to reciprocate raises concerns of multicollinearity, we collapsed these three measures into one and conducted an additional analysis with advice taking as the dependent variable, advisor trust as the predictor and two mediators, namely perceived competence and the average of perceived benevolence, perceived integrity and reciprocity motivation. As [Table A9\(ii\)](#) shows, this analysis found that the effect of the composite reciprocity measure was in the same direction, although weaker and not quite significant.

Table A9. Direct and indirect effects of advisor trust on advice taking in Study 4' replication test. Each row represents a regression analysis of the outcome variable by the listed predictor or predictors, whereas the mediation section presents analysis of indirect effects.

(i) Model with each mediator variable inserted separately.					
Outcome variable	Predictor	Estimate	95%	CI	<i>p</i>
Perceived competence	Initial advisor trust	0.89	0.49	1.29	< .001
	Perceived integrity	1.66	1.31	2.01	< .001
Perceived benevolence	Initial advisor trust	1.73	1.34	2.11	< .001
	Reciprocity motivation	2.82	2.47	3.17	< .001
Advice taking	Initial advisor trust	0.18	-0.73	1.09	.69
	Perceived competence	0.60	0.31	0.88	< .001
	Perceived integrity	-0.08	-0.47	0.31	.68
	Perceived benevolence	0.25	-0.13	0.64	.19
	Reciprocity motivation	0.09	-0.26	0.43	.61
Mediation	Perceived competence	0.53	0.31	1.97	sig.
	Perceived integrity	-0.13	-0.73	0.46	ns
	Perceived benevolence	0.44	-0.30	1.20	ns
	Reciprocity motivation	0.25	-0.74	1.38	ns
(ii) Model with a composite mediator variable aggregating reciprocity motivation and perceived integrity and benevolence.					
Outcome variable	Predictor	Estimate	95%	CI	<i>p</i>
Perceived competence	Initial advisor trust	0.89	0.49	1.29	< .001
	Reciprocity and perceived integrity and benevolence	2.06	1.76	2.38	< .001
Advice taking	Initial advisor trust	0.13	-0.67	0.93	.75
	Perceived competence	0.58	0.32	0.84	< .001
	Reciprocity and perceived integrity and benevolence	0.30	-0.03	0.64	.07
Mediation	Perceived competence	0.51	0.22	0.86	sig.
	Reciprocity and perceived integrity and benevolence	0.63	-0.05	1.38	ns

B. Appendix B—Optimal weight of advice calculation

In the main text, we explored the weight of advice (*WOA*) in different experimental settings. Participants made an initial estimate, after which they received advice and could revise their estimate. *WOA* is calculated as

$$WOA = \frac{FinalEstimate - InitialEstimate}{Advice - InitialEstimate}. \quad (1)$$

Rearranging Equation 1 as

$$FinalEstimate = (1 - WOA) \times InitialEstimate + WOA \times Advice \quad (2)$$

makes it clear that *WOA* is the weight that is given to the advice when determining the final estimate as a weighted average between the initial estimate and the advice. If the *WOA* equals 0, then the advice was completely disregarded; in this case, the respective weights assigned by the participant to the initial estimate and to the advice are 1 and 0. A *WOA* that equals 1 means that the respective weights of the initial estimate and the advice are 0 and 1.

In this section, we suggest an optimal solution to the weight the decision-maker should give the advice she receives in forming her final estimate. We consider the advice-giving paradigm we used in studies 1B, 2, and 3, because the paradigm used in these studies controls for the precise amount of knowledge available to decision-makers and to advisors. Studies 1A and 4, which used different paradigms, are not addressed here.

The structure of the setting in Studies 1B, 2, and 3 is as follows: player A, the advisor, samples a set of numbers $S_a = \{a_1, a_2, \dots, a_{n_a}\}$ from a population of N numbers, and is informed about the average \bar{a} of the sample; player A sends advice, in the form of a single number, to player B; player B (the decision-maker) samples a set $S_b = \{b_1, b_2, \dots, b_{n_b}\}$ from the same population as player A, and is informed about the average \bar{b} of the sample; player B makes an initial estimate about the population's mean; player B receives the advice sent by player A; player B makes a final, possibly revised, estimate.

The solution proposed here is not meant to be a descriptive account of how participants actually make decisions in our setting. Rather, it is intended to provide a benchmark against which to compare actual behavior. The general logic of the proposed solution is based on the following insights:

B.1. No overlap

If there is no overlap between the samples, the revised estimate should be a weighted average of the averages of both samples, each weighed according to the sample size it is based on (see Section B.4).

B.2. Full overlap

If one sample is a subset of the other, the decision-maker should ignore the smaller sample, and the revised estimate should be the average of the larger sample (see Section B.5.1).

B.3. Partial overlap

If there is partial overlap between the samples, the weight assigned to the average of each sample should gradually shift between the two extremes (No overlap and Full overlap) described directly above (see Section B.5.2).

Since the decision-maker does not know the extent of overlap, we propose that she should weigh each degree of overlap between the samples (ranging from *No Overlap to Full Overlap*) according to the probability of that particular degree of overlap, and make her final estimate accordingly (see Section B.5.3).

In Study 1B, for example, the values of the parameters were $n_b = 5$, $n_a = 20$, and $N = 100$. In the following analysis and calculations, we assume that the advisor’s sample is larger than the decision-maker’s ($n_b < n_a$), as was the case in Studies 1B, 2 (high-knowledge condition), and 3. In the low-knowledge condition in Study 2, the advisor’s sample was smaller than the decision-maker’s ($n_a < n_b$); we consider this case in Section B.6.

B.4. Optimal WOA when samples do not overlap

The decision-maker can maximize the expected accuracy of the initial estimate by using the average of her sample, \bar{b} , as her initial estimate. Similarly, the advisor can maximize the expected accuracy of the advice by sending the average of the sample \bar{a} . If both the decision-maker and the advisor indeed do this, and, importantly, if their samples were known to not overlap with each other, then the best final estimate for the decision maker would be a weighted average of the two averages, each weighed according to the sample size it is based on (k denotes the number of overlapping numbers between the samples):

$$FinalEstimate_{k=0} = \frac{n_b \bar{b} + n_a \bar{a}}{n_a + n_b} \tag{3}$$

The WOA implied by Equation 3 is

$$WOA_{k=0} = \frac{n_a}{n_a + n_b}. \tag{4}$$

Note that the WOA measure that is our main dependent variable in the studies is not based on the actual sample means, \bar{b} and \bar{a} , but on the initial estimate and on the advice, *InitialEstimate* and *Advice*. However, both decision-makers and advisors were explicitly informed about the mean of the sample they drew, and the large majority of them chose values that either equaled, or were very close to the mean. Furthermore, decision-makers knew that advisors were informed about the mean of their sample; thus, it is reasonable to assume that overall, they believed the advice was equal, or very close to \bar{a} . Therefore, we continue under the assumption that the decision-maker’s initial estimate and the advice sent by the advisor equal \bar{b} and \bar{a} , respectively. Even if *InitialEstimate* and *Advice* do not exactly equal \bar{b} and \bar{a} , the underlying logic presented above, that a piece of evidence should be weighed according to the relative size of the sample it is based on, is still valid.

B.5. Adjusting for overlapping samples

Equations 3 and 4 hold only if the two samples are nonoverlapping. In our studies, however, the samples drawn by the decision-makers and by the advisors, could, as far as the decision-makers knew, overlap. For illustration, consider the case where $n_b = 5$, $n_a = 20$, and $N = 100$. The decision-maker should take into account the probability that the samples overlap; more precisely, she should consider the probability that there is no overlap, that there is an overlap of 1, 2, 3, 4, or 5 numbers, and of the effect each of these possibilities has on the relative weights that should be assigned to the initial estimate and the advice.

B.5.1. Optimal WOA when samples fully overlap

We first consider the relatively simple case where the smaller sample is a subset of the larger sample. If $S_b \subseteq S_a$, that is, each and every number in the decision-maker’s sample is also included in the advisor’s sample, the decision-maker can ignore her own sample and rely solely on the advisor. In this case

$$FinalEstimate_{k=n_b} = \frac{0\bar{b} + n_a\bar{a}}{n_a} = \bar{a}, \tag{5}$$

and the *WOA* is

$$WOA_{k=n_b} = 1. \tag{6}$$

B.5.2. Optimal *WOA* when samples partially overlap

B.5.2.1. One overlapping number

If there is exactly one known overlapping number c between the decision-maker’s and the advisor’s samples, then the decision-maker should disregard that particular number, the effective size of the combined sample is reduced from $n_a + n_b$ to $n_a + n_b - 1$, and Equation 3 can be adjusted as follows:

$$FinalEstimate_{k=1} = \frac{n_b \bar{b} + n_a \bar{a} - c}{n_a + n_b - 1} \tag{7}$$

If the overlapping number is unknown, the decision-maker should apply Equation 7 for all possible values of c , and estimate the average. Since $c \in S_b$, the possible values of c are $b_1 \dots b_{n_b}$, and the result of the calculation is as follows:

$$\begin{aligned} FinalEstimate_{k=1} &= \frac{1}{n_b} \sum_{i=1}^{n_b} \left[\frac{n_b \bar{b} + n_a \bar{a} - b_i}{n_a + n_b - 1} \right] = \frac{1}{n_a + n_b - 1} \sum_{i=1}^{n_b} \left[\frac{n_b \bar{b} + n_a \bar{a} - b_i}{n_b} \right] \\ &= \frac{1}{n_a + n_b - 1} \left[\frac{n_b (n_b \bar{b} + n_a \bar{a})}{n_b} - \sum_{i=1}^{n_b} \frac{b_i}{n_b} \right] = \frac{1}{n_a + n_b - 1} [n_b \bar{b} + n_a \bar{a} - \bar{b}] \\ &= \frac{(n_b - 1) \bar{b} + n_a \bar{a}}{n_a + n_b - 1}. \end{aligned} \tag{8}$$

The *WOA* in this case is

$$WOA_{k=1} = \frac{n_a}{n_a + n_b - 1}. \tag{9}$$

Note that the *WOA* is increased relative to the case where the samples do not overlap ($WOA_{k=1} > WOA_{k=0}$)

B.5.2.2. k overlapping numbers

For the general case of k overlapping numbers ($k \leq \min(n_a, n_b)$), similar calculations result in generalized versions of Equations 8 and 9:

$$FinalEstimate_k = \frac{(n_b - k) \bar{b} + n_a \bar{a}}{n_a + n_b - k} \tag{10}$$

$$WOA_k = \frac{n_a}{n_a + n_b - k} \tag{11}$$

Note that when $k = n_b$ ($\iff S_b \subseteq S_a$) Equation 10 reduces to Equation 5 and *WOA* equals 1.

B.5.3. Unknown number of overlapping numbers

Since the decision-maker in the studies has no way of knowing if and how many numbers overlap between her and the advisor’s samples, she should consider all possible values of k in Equation 10, weighing each according to the probability of exactly k numbers overlapping:

$$FinalEstimate = \sum_{k=0}^{\min(n_a, n_b)} [P(\text{overlap} = k) \times FinalEstimate_k] \tag{12}$$

The distribution of k (the number of overlapping numbers) is hypergeometric, with the following parameters: N is the population size; n_a is the number of success states; n_b is the number of draws; and k is the number of successes. A decision-maker wishing to maximize the accuracy of the final estimate should therefore estimate as follows:

$$FinalEstimate = \sum_{k=1}^{\min(n_a, n_b)} \left[\left(\frac{\binom{N-n_a}{n_a-k} \binom{n_a}{k}}{\binom{N}{n_b}} \right) \left(\frac{(n_b-k)\bar{b} + n_a\bar{a}}{n_a + n_b - k} \right) \right] \tag{13}$$

It follows that the *WOA* (the coefficient assigned to the advice) should be:

$$WOA = \sum_{k=0}^{\min(n_a, n_b)} \left[\left(\frac{\binom{N-n_a}{n_a-k}}{\binom{N}{n_b}} \right) \left(\frac{n_a}{n_a + n_b - k} \right) \right] \tag{14}$$

B.6. Advisor’s sample is smaller than the decision-maker’s

In the calculations above, we assumed that the advisor’s sample is larger than the decision-maker’s (i.e., $n_a > n_b$). While this is perhaps a typical scenario (the advisor is more knowledgeable), it is not a logical necessity. Indeed, in the *low-knowledge* condition in Study 2, the advisor was less informed than the decision-maker ($n_a = 5, n_b = 10$). The general implication of a smaller advisor sample is that the possibility of overlapping samples entails decreasing, rather than increasing, the *WOA*.

The most extreme case of overlapping samples is fully overlapping samples ($S_a \subseteq S_b$), in which case the decision-maker should completely disregard the advice, and rely only on her own sample:

$$FinalEstimate_{k=n_a} = \frac{n_a\bar{b} + 0\bar{a}}{n_b} = \bar{b} \tag{15}$$

$$WOA_{k=n_b} = 0 \tag{16}$$

When considering the case of one unknown overlapping number (Section B.5.2.1), instead of averaging over $b_1 \dots b_{n_b}$, the decision-maker should average over $a_1 \dots a_{n_a}$, and the *WOA* is (compare to Equation 9):

$$WOA_{k=1} = \frac{n_a - 1}{n_a + n_b - 1} \tag{17}$$

Similarly, in the general case of k overlapping numbers (Section B.5.2.2), the *WOA* is (compare to Equations 11):

$$WOA_k = \frac{n_a - k}{n_a + n_b - k}. \tag{18}$$

Finally, when the advisor sample is smaller than the decision-maker’s, the general recommendation for *WOA* changes from Equation 14 to

$$WOA = \sum_{k=0}^{\min(n_a, n_b)} \left[\left(\frac{\binom{N-n_a}{n_a-k}}{\binom{N}{n_b}} \right) \left(\frac{n_a - k}{n_a + n_b - k} \right) \right] \tag{19}$$

B.7. WOA in the studies

Using [Equations 14](#) (for Study 1B and Study 2, high-knowledge condition) and [19](#) (for Study 2, low-knowledge condition) to calculate the optimal *WOA* for the studies, we report in the main text yields the following results:

	N	n_a	n_b	<i>WOA</i> (weighted average)	<i>WOA</i> (adjusting for overlapping samples)
Studies 1B and 3	100	20	5	0.80	0.83
Study 2 high-knowledge	100	20	10	0.67	0.72
Study 2 low-knowledge	100	5	10	0.33	0.31