Flattering Advice: Avoiding Disappointment in Advice-Giving

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Abstract

Good advice improves decision quality but often requires delivering unpleasant truths that may disappoint advisees. Across three pre-registered and incentivized experiments involving real adviser-advisee interactions (N = 3,900), we show that advisers prioritize avoiding disappointment at the expense of accuracy and their own earnings. In Study 1, advisers financially rewarded for accuracy still tailor recommendations to aspirational goals expressed by advisees, resulting in worse advice. When incentivized to be liked, advisers provide even more flattering advice, and advisees reward this by rating these advisers as more likable, despite the advice being less honest and less accurate (Study 2). The desire to avoid disappointment may lead to inequities if there are differences in expectations across social groups. In Study 3, we examine a setting in which men expect to perform better than women. We show that advisers take into account these expectations, leading to systematically different advice for men and women even when their gender is unknown to advisers. Advisers' efforts to avoid disappointment may thus contribute to systematic gender disparities in advice, with implications for downstream decision-making.

Keywords: advice, interpersonal relationship, discrimination, gender bias

Flattering Advice: Avoiding Disappointment in Advice-Giving

Introduction

Career trajectories for men and women often differ substantially, even among those with similar qualifications. One source of such differences may be the advice that people receive. Prior work has documented that men receive more aspirational advice and women more risk-averse advice, which may explain why women are less likely to apply for and ultimately obtain more rewarding positions (Kanze et al., 2018). Research on gender discrimination has focused on the role of unconscious bias (Banaji & Greenwald, 1995; Nosek et al., 2009), but interventions that try to reduce this bias have been largely unsuccessful (Chang et al., 2019; Paluck & Green, 2009). Recent work has proposed cognitive, rather than unconscious, biases that can lead to gender discrimination through the formation of false beliefs (Hagmann et al., 2024). Here, we propose a novel source of differences in advice by drawing on recent work on belief-based utility, expectation-based reference points (Kőszegi & Rabin, 2006, 2009), and the hedonic consequences of information (Golman et al., 2017).

Advice figures prominently in workplace and personal decision-making, shaping choices about promotions, career paths, and everyday dilemmas (Gino & Moore, 2007; Harvey & Fischer, 1997; Soll & Larrick, 2009). Its fundamental premise is to improve outcomes by enabling decision-makers to learn from others' expertise. However, while honest advice can lead to better decisions, it can also lead to disappointment when it suggests a desired outcome is unlikely to materialize. Advisers may be motivated to offer flattering recommendations that align with advisees' hopes, sparing them the disappointment of a more sobering forecast.

Advice with the potential for disappointment appears in diverse organizational settings: supervisors deliver feedback on employee performance, lawyers convey likely outcomes of litigation to their clients, and academics offer thoughts on colleagues' manuscripts. Ideally, honest information would help people identify their strengths and weaknesses, make informed decisions about whether to pursue legal cases, and strengthen papers prior to submission to academic journals, thus improving long-term outcomes. In practice, however, interpersonal considerations

may prevent candor. When someone's expectations are (too) high, an adviser might hesitate to deliver information that undermines it—particularly if doing so risks negative interpersonal repercussions.

While much of the literature on advice assumes that advisers aim to provide the most helpful advice, thier motivations are often more complex (Dalal & Bonaccio, 2010; Rader et al., 2017; Yaniv & Choshen-Hillel, 2012). Advisers are not only concerned with the accuracy and usefulness of their advice but also with their relationships with advisees. Interpersonal concerns—such as maintaining a positive image, avoiding conflict, or preserving social harmony—can shape the way advice is delivered (Chentsova-Dutton & Vaughn, 2012; Schaerer et al., 2018; Van Swol, 2009). In particular, advisers may strategically soften their messages or withhold unfavorable information to manage how they are perceived or to prevent discomfort for both themselves and the advisee (Levine et al., 2020; Sniezek & Van Swol, 2001). These interpersonal dynamics suggest that advice is not always optimized for the recipient's best interest but is instead filtered through social and psychological considerations.

Just as advisers may hesitate to provide unwelcome truths, advisees themselves are often resistant to hearing them. People often go to great lengths to avoid unpleasant information, deriving belief-based utility from maintaining favorable views of themselves (Golman et al., 2017; Ho et al., 2021; Loewenstein & Molnar, 2018). Moreover, they often prefer advisers who withhold bad news from them (Shalvi et al., 2019) and punish those who communicate bad news (John et al., 2019). Advisers, anticipating these preferences and consequences face a dilemma: Should they provide the accurate but potentially painful truth, or shade their recommendations to preserve the advisee's mood and the adviser's own standing? Advisers who fear they will be blamed or disliked for undermining someone's confidence may reasonably avoid candid feedback, particularly if they don't incur a cost when the advisee makes a mistake.

In our experiments, however, advisees have no opportunity to punish the adviser, and advisers' financial incentives are linked to the decisions the advisees make. We propose that advisers nonetheless have reason to provide flattering advise because they recognize the

psychological toll of disappointing news. As a result, they may similarly incur a hedonic cost for delivering unpleasant information that they anticipate may distress the advisee. Thus, even in the anonymized context of an online experiment, we hypothesize (and find) that advisers are relucant to disappoint advisees and advice is thus biased upward, away from accuracy. We show that this reduces the disappoint advisees and advice is thus biased upward, away from accuracy and toward confirming advisees' priors. We show that this reduces the quality of advice—but that advisees nonetheless view flattering advisers more favorably.

We present the results of three preregistered experiments in which participants are paired anonymously as advisers and advisees. Advisers are incentivized to offer accurate advice, with bonus earnings depending on the outcome of an advisee's decision. We study a setting in which advisees can communicate their expectations to an adviser, and experimentally manipulate whether advisers observe this expectation. Our design simulates organizational contexts where mentors and managers often have some sense of an employee's confidence or aspirations and thus could adjust their feedback to avoid disappointing them. Interpersonal considerations would likely be stronger in situations in which the adviser and advisee have an existing relationship and when the advice is delivered face-to-face. Moreover, advisers usually do not suffer any direct costs when their flattering advice leads to a poor outcome for the recipient, particularly when it is not clear what would have happened under a counterfactual.[1]

In Study 1, we nudge advisees into a preference for competing against either a group of top-performers or a group of low-performers, through the use of a default option. Advisers who observe the actual performance of advisees and therefore have the relevant information needed to make a recommendation nonetheless take into account the initial preference when recommending which group they should compete against. In Study 2, we ask advisees to upload photos of themselves and advisers rank them on their attractiveness. Advisers then recommend which rank the advisee should bet on, receiving an incentive either for the advisee's accuracy or for being

[1] In some cases, however, repeated interaction might also increase incentives for honest feedback. Someone who is known to persistently give overoptimistic advice may be viewed as less trustworthy in the long run.

evaluated favorably. Both groups of advisers recommend a rank that is more attractive than what they themselves have evaluated the advisee, and those incentivized for likability further inflate the ranking. Advisees evaluate advisers more favorably when they recommend betting on a more attractive rank, including viewing them as more trustworthy.

In Study 3, we examine a setting in which participants report their expected performance on a mathematics quiz. Advisers observe the test-taker's true score and, in one treatment, the score they guessed they would receive. They then recommend whether the advisee should compete against a group of high performers or low performers. Importantly, this "competition" is based on the past performance observed by the adviser and thus the advisee's expectation does not provide instrumental information. However, we find that (1) men expect to perform better than women, given identical performance, and (2) advisers take these expectations into account. As a result, when expectations (but not gender) are known to advisers, the advice given to men and women differs, and men are more often advised to compete against the group of high performers. Notably, this leads to worse advice for men than for women.

Open Science Statement

We report all manipulations, measures, and data exclusion in our experiments. The preregistration reports, screenshots of all experimental materials, and the analysis code to replicate all statistical analyses and figures are available on the Open Science Framework (https://osf.io/8r3d4/?view_only=5ad7bafcd16b4d4ba08bb28b0e2bd02d).

Study 1

We first examine whether advisers take into account the expectations of advisees when providing a recommendation. A group of participants ("Advisees") complete a quiz consisting of ten questions that draw on ego-relevant domains. They then express a non-binding preference to compete against a group of high performers or low performers on the same task, based on their past performance. We nudge participants towards picking either the low or the high performer group by selecting one of the two by default. A second group of participants ("Advisers") observe Advisees' score on the quiz and, in one treatment, also which group they had selected. We

predicted that Advisees who were nudged toward the high performer group would be more likely to receive advice to compete against this high group when Advisers observed their non-binding choice.

Methods

In a preliminary stage, we recruited 50 participants from Prolific and gave them five minutes to complete a quiz consisting of ten items. The quiz included word puzzles, identifying emotions from photos, and selecting the best responses for hypothetical scenarios. These questions were adapted from surveys that measure problem-solving, emotional intelligence, and communication skills—which we pre-tested as being important in modern society and hence where participants might have a stake in doing well. Participants received a bonus of five cents for each correctly answered question. We then ranked them based on their score and label the 20 participants with the lowest (highest) scores as the Low (High) Performer Group.

Next, we recruited 201 participants for the role of Advisees. They completed the same 10-item quiz, also earning five cents for each correct answer. We then asked them to express a non-binding preference for whether they would like to compete against the High or Low Performer Group. We informed them that they would be invited back at a later date when they could make a binding decision and they could earn a bonus based on whether their score on this quiz was equal to or higher than a randomly selected member from their comparison group. If they picked the High Performer Group and had an equal or higher score than a randomly selected member of that group, they would earn a bonus of 50 cents. If they picked the Low Performer Group and outperformed a randomly selected member of that group, they could earn a bonus of 20 cents. If their score was lower in this comparison, they would not earn an additional bonus. We randomized which of the two groups (High or Low Performers) was selected by default, and Advisees were free to select the other group. The survey concluded with basic demographic questions.

We then recruited 1,000 participants for the role of Advisers, and the focal part of our experiment. They were informed of the ability quiz that the Advisees had completed, how the Low Performer Group and High Performer Groups were constructed, as well as the choice and

incentives for the Advisees. We then asked Advisers to give advice to ten participants on which group they should compete against. Advisers were randomly assigned to one of two treatments. In the "Performance" treatment, they observed only the score of the other participant. In the "Performance + Expectation" treatment, they additionally observed the advisee's non-binding choice of which group to compete against. However, since the outcome was based solely on the past quiz score and advisers, but not advisees, know the score, this initial choice was not informative for the purpose of recommending competing against one group or the other. Advisers could earn the same bonus as one of the participants they had given advice to and who returned to make a decision. The survey concluded with basic demographic questions.

Finally, we invited Advisees back for the follow-up survey. Following our preregistration, we kept the survey open for 7 days. In total, 176 Advisees returned. The short survey reminded them of the task they completed in the previous survey, informed them that other participants from Prolific had observed their real score and given them advice on which group to compete against, and, finally, reminded them of their initial choice of comparison group. They were not informed of their true score or the score of the groups they could compete against. Participants then observed the advice from a randomly selected adviser and made their decision.

Results

We begin by examining the performance of the Stage 1 participants. Because our default treatment takes place after participants completed the ability quiz, we do not expect a difference in performance across the Low and High Default treatments. Indeed, the two groups score no different from one another (5.10 and 5.18 for the Low Default and High Default treatments, respectively, $t(199) = 0.31$, $p = .756$). As expected, the default manipulation changes their initial choices. In the "Low Default" treatment, only 22% of participants prefer to compete against the High Performer Group, compared to 65% of participants in the "High Default" treatment ($\chi^2(1, n = 201) = 36.62$, $p < .001$).

We now examine whether advisers take the advisees' expectations into account. Advisers observe the true performance of the advisee, such that expectations about performance add no

Table 1

Advice to compete against the High Performer Group in Study 1. Displaying the non-binding choice of those for whom the Low Performer Group was selected by default makes it less likely that they are advised to compete against the High Performer Group (Column 1). Column 2 restricts the analysis to advisers who observe advisees' initial non-binding choice and controls for advisees' score on the quiz. Standard errors are clustered at the adviser level.

	Advice to Compete Against High Performers	
	All Advice	Expectations Shown
High Default	0.011	0.025*
	(0.013)	(0.011)
Expectation Shown	−0.041*	
	(0.016)	
Expectation x High Default	0.037+	
	(0.019)	
Score		0.168***
		(0.004)
Constant	0.389***	−0.503***
	(0.012)	(0.020)
N	10 000	5000

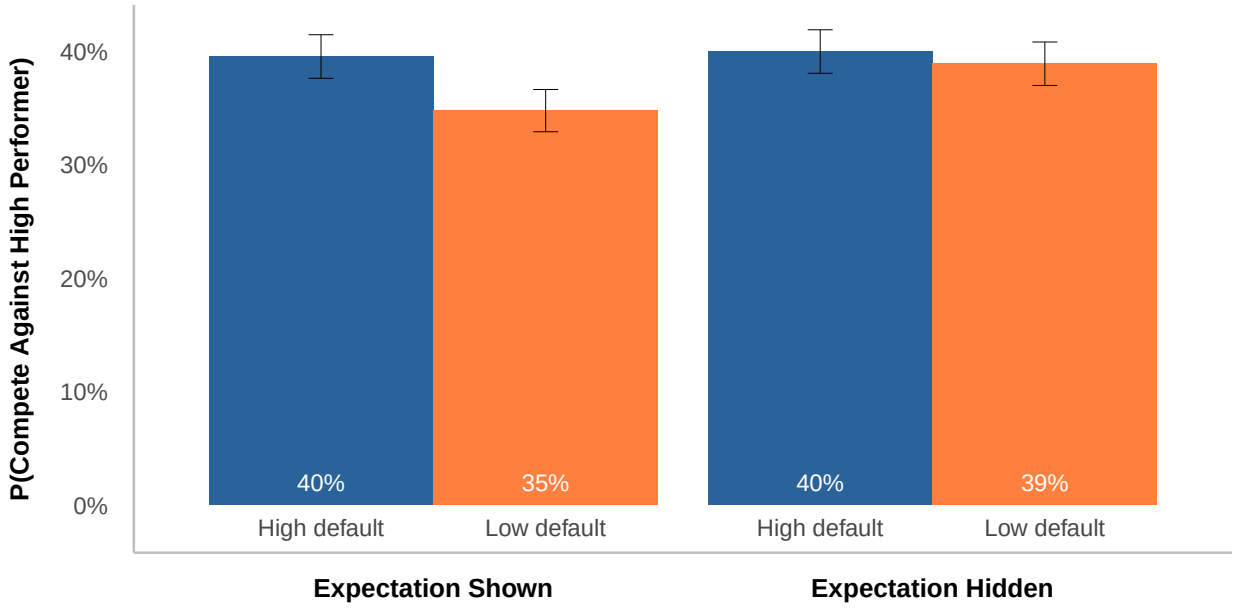
+ p <0.1, * p <0.05, ** p <0.01, *** p <0.001

additional information. However, because participants who score higher are also more likely to pick the High Performer Group, we use our Default treatment as an instrument that reflect higher expectations. We show linear probability models for the decision of the Advisers, which is equal to 1 if they recommend competing against the High Performer Group and 0 if they recommend the Low Performer Group. In Column 1 of Table 1, we show our main specificiation with the experimental assignment for Advisees (High Performer Default vs. Low Performer Default) and Advisers (Expectation Shown vs. Expectation Hidden), as well as their interaction. Because each adviser made ten recommendations, we cluster standard errors at the adviser level. We find that displaying expectations of those in the Low Performer Default reduces recommendations to compete against the Top group by 4 percentage points, or about 10% relative to when expectations are hidden. This decrease is marginally smaller for advisees with a default choice to compete

against the High Performer Group (nudged to have high expectations, though not necessarily holding them), and whose advice did not differ based on whether their expectations were shown or hidden. We reported a linear probability model on advising to compete against the High Performer group for advisers in the "Expectations" treatment, controlling for the true performance of the advisee in Column 2 of Table 1. We observe a significant main effect of the default treatment, where a high default increased the likelihood of receiving flattering advice. It is worth noting that, since only 65 % of advisees in the high default group actually stuck with their default choice, this represents a conservative test of the effect of high expectations on the likelihood of receiving flattering advice.

Figure 1

Advice given in Study 1. Advisees who were nudged to express high expectations were more likely to receive advice to compete against the High Performer Group.



Discussion

When an adviser knows an outcome that an advisee can only estimate, learning this estimate should not change the advice that is given. However, in line with our argument that advisers take into account the belief utility of the advisee and prefer to avoid disappointing them, we find that providing information about expectations makes a difference. Specifically, advisees who expressed a preference for stronger competitors were more likely to receive flattering advice,

encouraging them to pursue that option. This occurs even though advisers are incentivized to give good advice.

Study 2

We next examine if advisers believe that flattering advice will improve how they are perceived, and if so, whether this perception is true. We do this by manipulating the incentives for advisers, who receive a bonus either based on how they are evaluated by an advisee, or a bonus for the advisee's accuracy.

The study takes place in three stages. First, a group of advisees upload photos of themselves ("selfies") and are grouped with nine other participants of the same sex. We then recruit participants of the opposing sex to rank them from most to least attractive and to provide advice. Specifically, they advise the participant they ranked as the 7th most attractive (i.e., 4th least attractive) on what rank they should bet they were ranked by a larger group of raters. Advisers were randomly assigned to two treatments, receiving a bonus payment either if the advisee guessed their rank accurately or if the advisee evaluated the adviser as likeable as measured by a scale response. We hypothesize that advisers incentivized to be liked will recommend betting on a lower rank, i.e. that the advisee is more attractive.

Methods

We recruit 300 participants from Prolific and, after asking demographic questions, invite them to upload photos of themselves (selfies) to be rated by other participants on attractiveness. We obtain selfies from 100 men and 107 women adhering to our instructions (e.g., did not include other people). In line with our preregistration, we select the first 100 photos from women to arrive at a gender-balanced sample (M_{Age} = 39.37 years). Participants are informed that their selfies will be randomly grouped with those of nine other participants of their sex and ranked in terms of attractiveness by a group of new Prolific participants of the opposite sex. They then make an unincentivized guess of their rank.

Next, we recruit 472 participants from Prolific for the role of advisers (M_{Age} = 41.03 years; 49.79% Female). We first collect demographic information, then match them to a group of

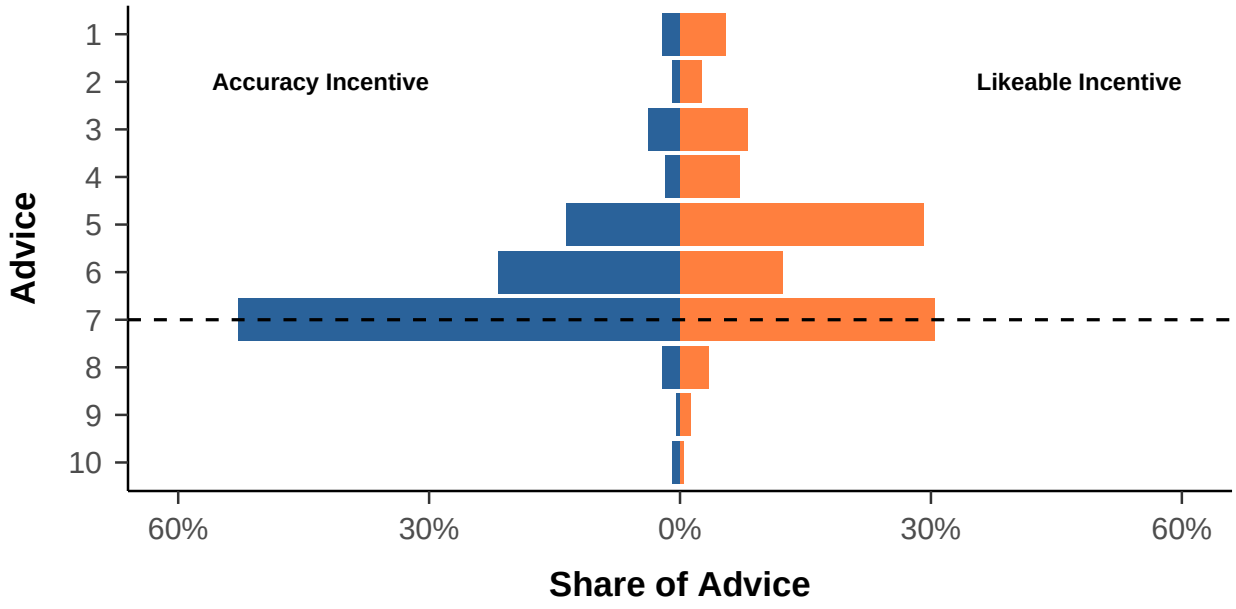
the opposite sex. They rank selfies of ten participants from most to least attractive by entering their rankings into a text box next to each picture. Because of a limitation with the survey software, we could not validate that each rank is given only once, and we remove 115 participants who failed to follow instructions and did not provide a complete ranking.[2]

After submitting their ratings, participants see the photo of the participant they ranked as the 7th most attractive (i.e., the 4th least attractive). We remind them of the rank they have just given to that person and inform them that this participant will be invited back and can earn a $1 bonus if they correctly guess their rank. The rank is determined by the aggregate ratings of all participants who have ranked this group. Because the participant does not observe the other nine people in the group, they would depend on the adviser's recommendation along with their own assessment. We randomly assign advisers to one of two incentivization schemes. In the "Accuracy" treatment, they receive a bonus identical to the advisee: $1 if they guess their rank correctly. In the "Likeability" treatment, we inform them that the advisee will rate them on a 5-point Likert scale on how likeable they thought they are. Each point on the scale would translate to a bonus of 20 cents. Advisers then select a rank (from 1 to 10) that they recommend the advisee to bet on.

Finally, we invite participants from Stage 1 who were ranked as the 7th most attractive participant by at least one adviser (so that they received advice) back for the follow-up survey. Following our preregistration, we keep the survey open for 7 days. In total, 146 participants (77 men, 69 women) complete the follow-up survey. We remind them of the selfie they uploaded in Stage 1 and that a group of 10 selfies, including theirs, had been rated by other participants from Prolific. They then see the advice from a randomly selected adviser and make their own guess with a $1 incentive for accuracy. Finally, they rate the adviser's likability, warmth, friendliness, good-naturedness, trustworthiness, and sincerity on 5-point Likert scales (adapted from Fiske et al., 2007).

Figure 2

Participants in Study 2 give advice to the person they rank 7th most attractive out of 10. When incentivized for accuracy, the majority recommends betting on that rank. However, when incentivized for likeability, participants inflate their advice to flatter the recipient as more attractive.



Results

We begin by examining the prior beliefs of advisees who uploaded their selfies. On average, men guess they rank 5.76 in their group of 10 and women guess that they rank 6.37 ($t(205) = 2.15$, $p = .033$). Notably, people's self-perceptions correlate strongly with the aggregate ratings of the advisers (0.43, $t(193) = 6.70$, $p < .001$). However, there is substantial heterogeneity in perceptions of attractiveness. Of the 200 participants, 149 are ranked as 7th most attractive by at least one adviser. On average, men in this subset estimate they rank 5.94th and women estimate they rank 6.59th ($t(143) = 1.94$, $p = .054$).

Next, we turn our attention to the advisers (see Figure 2). In the Accuracy condition, those uploading selfies are on average advised to bet on rank 6.19. Notably, this is significantly more attractive than the 7th rank those advisers had themselves guessed just on the prior screen

[2] Moreover, we could not collect data from any participant who did not select any participant as the 7th most attractive participant, as that image would be shown on subsequent pages.

($t(234) = -8.82$, $p < .001$). This suggests that even when incentivized for accuracy, participants offer flattering advice.[3] Importantly, and as predicted, we find that advisers in the Likeable treatment recommend betting on a lower rank, communicating that they think the participant in the selfie is more attractive (5.38, $t(470) = 5.44$, $p < .001$). This suggests that advisers infer flattering someone with pleasant advice would make the adviser appear more likeable. The distribution shown in Figure 2 shows that participants do not simply tell participants that they are the most attractive person in the group. They may infer that flattering advise needs to be somewhat realistic to be believable. We return to this in the general discussion.

Table 2

When individuals receive advice that implies a high level of attractiveness (lower rank), they tend to perceive the advice giver as more likable (Column 1), warm (Column 2). Column 3 shows that advisors are rated as more trustworthy when they advice lower ranks, but this relationship is only directional.

	(1)	(2)	(3)
Advised Rank	−0.109*	−0.133**	−0.054
	(0.046)	(0.044)	(0.042)
Constant	3.777***	3.903***	3.397***
	(0.279)	(0.266)	(0.257)
N	146	146	146

+ p <0.1, * p <0.05, ** p <0.01, *** p <0.001

Finally, we examine whether flattering advice indeed leads to more positive evaluations of advisers, or whether flattering advice is dismissed as insencere. Following our preregistration, we average the ratings on likeability, warmth, friendliness, and good-naturedness to create a scale of likeability ($\alpha = 0.92$); and we create a scale of trustworthiness by averaging the ratings of trustworthiness and sincerity ($\alpha = 0.87$).

As seen in Figure 3, we advisers who suggested that the advisee was more attractive (lower rank) were indeed rated as more likeable and warm (b = -0.109, p < .05; b = -0.133, p < .001,

[3] This shading could be due to concerns of avoiding disappointment. However, it could also be that advisers are uncertain about the rankings they have given and make a recommendation that combines their own belief with a uniform prior. Therefore, our analyses focus on the difference between the two conditions.

Figure 3

Participants tend to rate advisors who suggest betting on a higher rank (implying greater attractiveness) as more likable and warm.

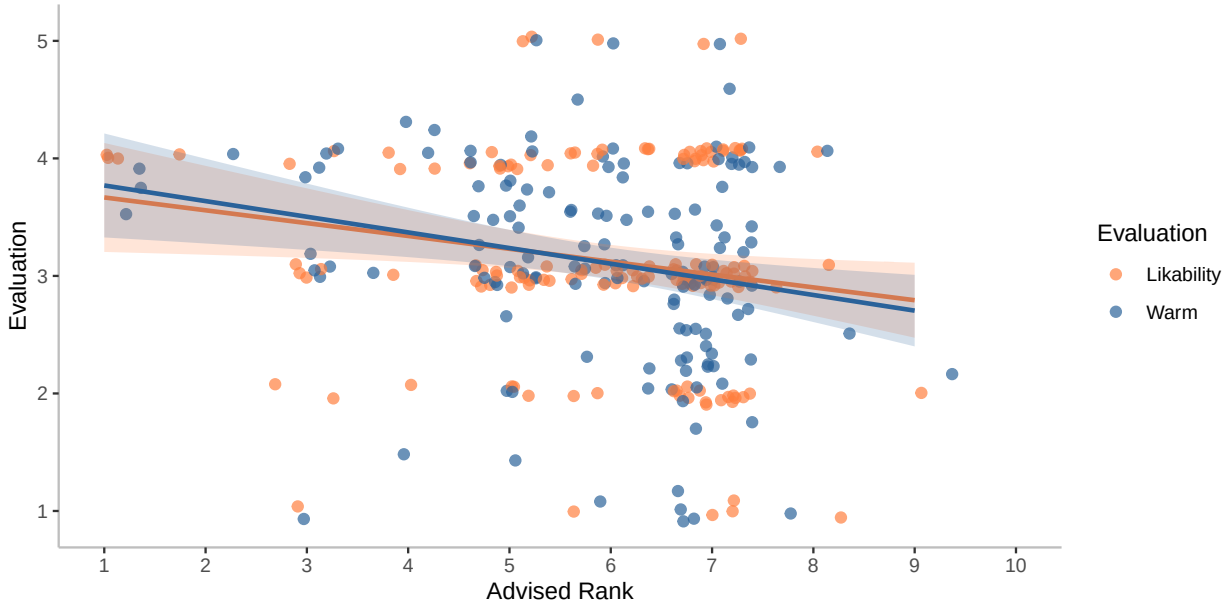
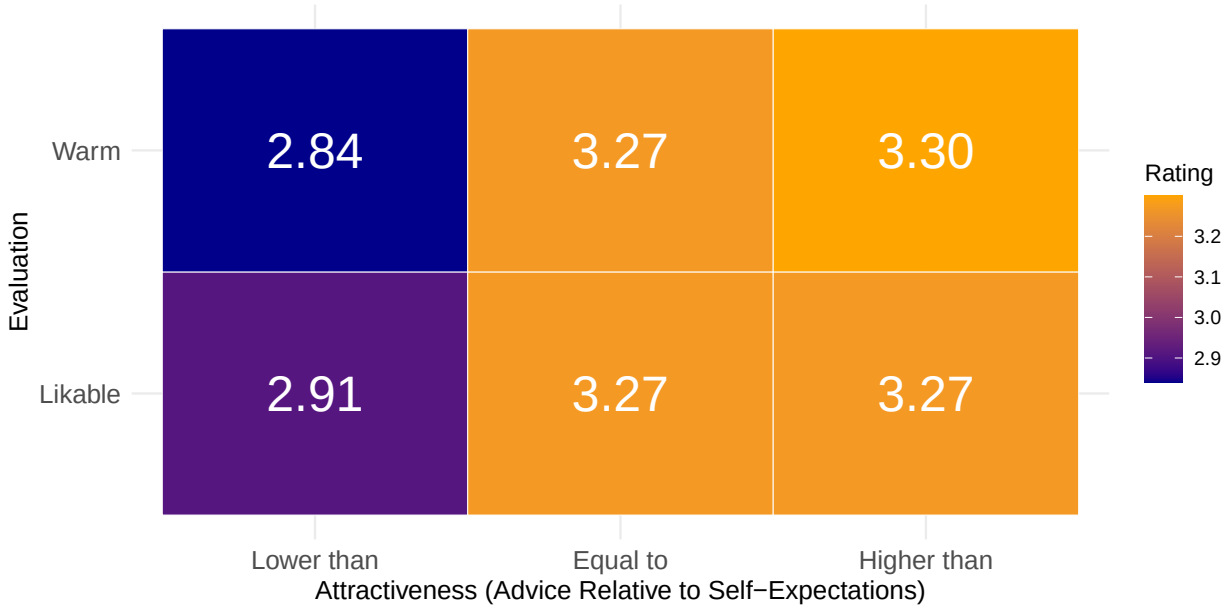


Figure 4

After participants receive advice that suggests betting on a rank that was lower than, equal to, or higher than their own guess, they evaluate advisors based on their likability and warmth. Participants rate advisors who give flattering advice and deliver a high evaluation of their attractiveness as more likable and warm than those whose advice implied a lower evaluation of their attractiveness.



respectively; See Columns 1 and 2 of Table 2). When using their own initial guess as a reference point, advisers who suggest a worse rank are perceived as less likable and warm (see Figure 4). Interestingly, these benefits are not at the cost of sincerity; advisers who recommend a more favorable rank are viewed as no less trustworthy (Column 3 of Table 2).

We are not powered to do a comparison across the two experimental groups and did not preregister such a difference. Indeed, we find no difference in likeability and warmth across the two treatments ($t(144) = 1.09$, $p = .275$, and $t(144) = 0.58$, $p = .562$, respectively). We also assess the quality of advice by measuring the discrepancy between the advised rank and the correct rank. We find no difference in accuracy across the advice treatments ($t(144) = -0.29$, $p = .776$).

Discussion

In another context where advice communicates ego-relevant information (here, people's attractiveness), we find that the advice people give is contingent on their incentives. Specifically, when they get rewarded for being more likeable, they recommend that the advisee bet on a more favorable rank than when they are incentivized for accuracy. Importantly, advisees do not discount flattering advice and instead evaluate people who advise them to bet on a more attractive rank as warmer and more likeable. These gains to interpersonal perceptions do not come at the cost of trustworthiness, even when the advice is inflated.

Study 3

In Study 3, we examine how advisers who want to avoid disappointment may inadvertently contribute to gender differences in advice. We ask participants to estimate their score on a mathematics test, and anticipate that men will guess higher than women. Moreover, we expect that advisers take into account the expected score when recommending whether someone should compete against a group of High or Low performers. As a result, we hypothesize that, when expectations are known to advisers, men will be advised to compete against High Performers more than women, even when advisers do not know gender and expectations are uninformative.

Methods

We begin by first recruiting a sample of 50 participants from Prolific to complete a 10-question multiple choice mathematics quiz. The questions are taken from a paper-version of the ASVAB standardized exam, such that answers are not available online. Participants have five minutes to answer the quiz and are paid 10 cents for each correctly answered question. Like in Study 1, we define the top 20 scores as "High Performers" and the bottom 20 scorers as the "Low Performers." On average, participants answered 4.42 questions correctly, High Performers scored between 5 and 10, and Low Performers scored between 0 and 3. In order to anchor the expectations of participants in our main experiment, we simulated 1,000 pairings of groups of five participants, with the 5th percentile of groups scoring an average of 2.6 and the 95 th percentile scoring an average of 6.4. We report these averages to participants in the Low Expectations and High Expectations treatment, respectively.

We then recruit 1,002 participants for the role of advisees in Stage 1 of our main experiment. To arrive at a gender-balanced sample, we drop the last two male participants to complete the survey, ending up with a sample of 500 men and 500 women (M_{Age} = 42.16). Participants complete the same 10-item mathematics quiz as the earlier participants and are informed that their performance would affect their bonus earnings in a follow-up stage to be conducted a few days later. After completing the quiz, we inform them of the average score of a group of five participants from the preliminary survey. We randomly assign them to learn about the 5th percentile of groups, which scored 2.6. ("Low Expectations" treatment) or the 95th percentile of groups, which scored 6.4 ("High Expectations" treatment). Participants then make an unincentivized guess about how many questions they think they answered correctly. The survey concludes with basic demographic questions.

We then recruit 1,000 participants for Stage 2, placing them in the role of advisers. We begin by informing them of the mathematics quiz that participants in the preliminary study and Stage 1 have completed, and inform them of the average score of all participants in the preliminary study. Advisers have to recommend whether an advisee should compete against the

Low Performers or the High Performers (we use these terms in the survey). We anticipate that being told to compete against High Performers is more flattering and hence being told to compete against the Low Performers would be disappointing if one had expected to do well. Advisees would earn a bonus if their score is equal to or higher than that of a randomly selected member from their chosen group. They earn 50 cents if they outperform a High Performer and 30 cents if they outperform a Low Performer.

Advisers are randomly assigned to one of two treatments. In the "Baseline" treatment, they only observe the score of the advisee on the mathematics quiz. In the "Expectation" treatment, they observe the score as well as the advisee's guess for how many questions they answered correctly. Since the outcome is determined only by the past score on the quiz, the advisee's guess is not informative for the recommendation, which can be based on the revealed score. Moreover, in neither treatment did they receive any demographic information about the advisees. Participants give recommendations to 10 advisees, which unbeknownst to them are five men and five women matched to have identical performance on the test.[4] They are informed that if their advice is shown to a participant who returns for the follow-up survey, they will receive the identical bonus as that participant. The survey then concludes with basic demographic questions.

Finally, we invite participants from Stage 1 back for the follow-up survey. Following our preregistration, we keep the survey open for seven days. In total, 951 participants (481 men, 470 women) return. The brief survey reminds them of the task they completed in Stage 1, informs them that other participants from Prolific have observed their real score and given them advice on which group to compete against, and finally are reminded of how many questions they guessed they had answered correctly. Importantly, they are not informed of their true score or the score of the groups they could compete against. Participants then observe the advice from a randomly selected adviser and make their decision.

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[4] We made this decision to account for the possibility of gender differences in performance.

Results

We begin by examining the performance of the Stage 1 participants. Because our treatment takes place after participants complete the mathematics quiz, we would not expect a difference in performance across the Low and High Expectations treatments. Indeed, the two groups score no different from one another (4.79 and 4.55 for the Low Expectations and High Expectations treatments, respectively, $t(998) = -1.64$, $p = .102$). As intended, the expectations treatment does affect how well they thought they performed. Participants in the "Low Expectations" treatment guess a score of 4.79 vs. 4.42 in the High Expectations treatment ($t(998) = 3.78$, $p < .001$), showing that the manipulation is successful, albeit small. Contrary to our expectations, we find a gender difference in performance: men score 5.02 on average, while women score 4.33 ($t(998) = -4.73$, $p < .001$). Consistent with this difference, men think they answered more questions correctly than do women (4.75 vs 3.56, $t(998) = -8.60$, $p < .001$). This difference, however, does not affect the interpretation of our findings, which will rely on an interaction of gender with an experimental treatment for Stage 2 participants.

We define a measure of "overconfidence" as (Performance - Estimate). We observe that women underestimate their performance by 0.76 points, while men do so by only 0.27 points ($\Delta M = -0.49$, 95% CI $[-0.73, -0.25]$, $t(997.87) = -4.03$, $p < .001$). Although neither gender is overconfident, men on average are more confident in their performance than are women, as we had expected.

Next, we examine whether advisers take the advisee's expectations into account. Column 1 of Table 3 reports a linear probability model on advising to compete against the High Performer group for advisers in the "Expectations" treatment, controlling for the true performance of the advisee. Because each adviser makes ten recommendations, we cluster standard errors at the adviser level. However, contrary to our expectations, we do not see a significant effect of the expectations treatment. This may be because the induced difference in expectations was too small.

However, recall that men are more confident in their performance than are women. Our theory thus predicts that showing expectations should lead to more flattering advice (i.e., a

Table 3

Column 1 displays the advice given to compete against a High Performance group based on whether the advisees were primed with low or high expectations and the expectation level shown to the advisor. Column 2 displays the advice given to compete against a High Performance group based on the gender of the targets and the expectation level shown to the advisor. Column 3 displays the expected bonus of the advice received based on the gender of the targets and the expectation level shown to the advisor. All standard errors clustered at the level of the advisor.

	(1)	(2)	(3)
High Expectation	0.012		
	(0.011)		
Performance	0.128***		
	(0.003)		
Expectation Shown		−0.034*	0.000
		(0.013)	(0.003)
Advisee Male		0.002	0.000
		(0.005)	(0.001)
Expectation x Male		0.032***	−0.005**
		(0.009)	(0.002)
Constant	−0.263***	0.339***	0.258***
	(0.015)	(0.010)	(0.002)
N	5000	10 000	10 000

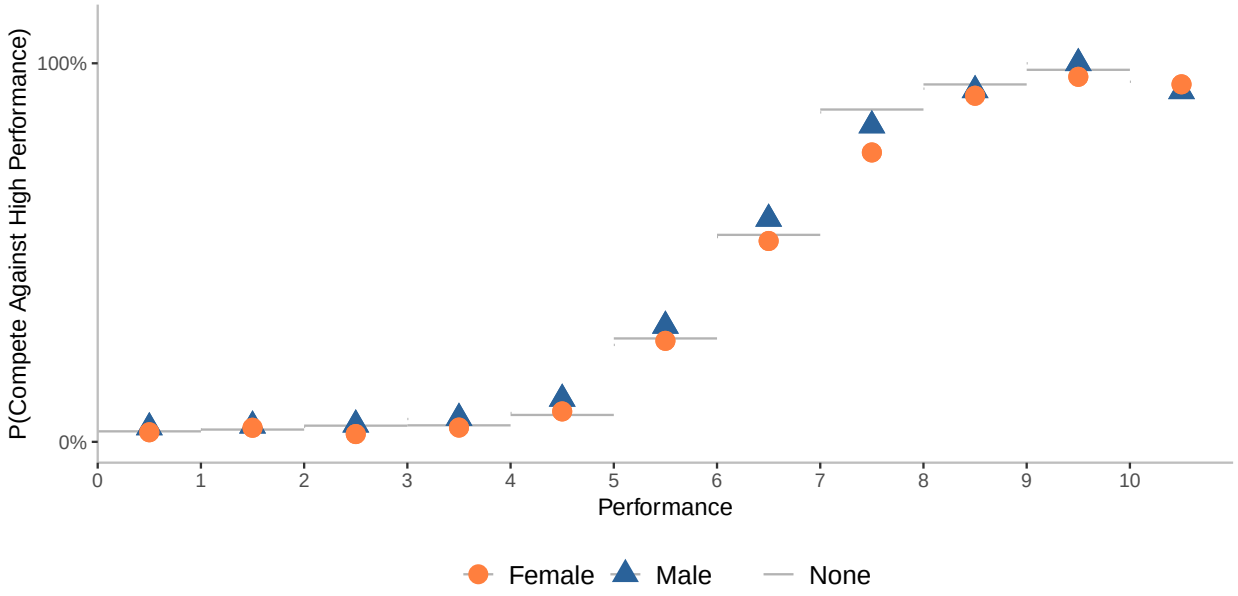
+ p <0.1, * p <0.05, ** p <0.01, *** p <0.001

recommendation to compete against the High Performer group) for men than for women. We report a linear probability model with advice to compete against the high group as the outcome measure, and the advisee's gender, whether expectations were shown to the adviser, and the interaction of the two in Column 2 of Table 3. As predicted, we find a significant interaction effect: men are more likely to be advised to compete against the High Performers when expectations are shown than when they are hidden ($p < 0.001$). We show this result graphically in Figure 5. As the figure makes clear, this effect is driven by advice given to those who scored in the middle of the possible range. Thus, when it is clear that someone should compete against Low or High performers, advisers are not deferring to expectations.

To examine the quality of advice, we computed the expected bonus earnings for someone

Figure 5

Advisers observed real performance and the participants' estimated performance, but not their gender. As a result of their higher expectations, men (blue) were advised to compete against the high performance group more often than women (red). The grey line shows advice absent expectations, which did not differ by gender.



who follows the recommendations. For example, if an adviser suggests competing against the High Performer group, we match the advisee against all 20 members of that group and determined how often their score matches or exceeds that of the member. We then multiply this number by the respective bonus earnings (50 cents and 30 cents for the High and Low Performer group, respectively). To see if including expectations leads to worse advise for men, we report a linear probability model with the experimental treatment of the adviser, the gender of the advisee, and their interaction in Column 3 of Table 3. Displaying expectations leads men to be advised to compete against the High Performer group more often, and this advice turns out to be costly: men receive worse advise than do women when expectations are displayed, but not in their absence.[5]

To determine whether flattering advice is truly costly, however, we need to examine the

[5] This analysis was not preregistered, and we note here that the reduction in expected earnings is small. However, it is interesting that expectations have a negative effect for men who underestimate their performance on average. One possibility is that advisers suggest the High Performer group more often than is optimal. This is consistent with our finding from Study 2, in which participants offered flattering advice even when incentivized only for accuracy.

Table 4

Column 1 displays the actual bonus based on the performance and whether the participant is primed with high expectations. Column 2 displays the actual bonus based on the performance and gender of the participant. Columns 3 and 4 display the chance of adopting the advice based on the gender of the participants, whether the advisee sees expectations, and whether the advice is to compete against high performers. The former considers only the main effect, while the latter also includes the interactive effect.

	(1)	(2)	(3)	(4)
Performance	0.038***	0.039***		
	(0.003)	(0.003)		
High Expectation	−0.020			
	(0.013)			
Advisee Male		−0.002	−0.045+	−0.144***
		(0.013)	(0.026)	(0.041)
Expectation x Male				0.113*
				(0.053)
Expectation Shown			−0.002	−0.057
			(0.026)	(0.040)
Advice: High Performer			−0.138***	−0.207***
			(0.028)	(0.051)
Advice: High Performer x Male				0.131*
				(0.056)
Expectation x Advice: High Performer				−0.009
				(0.056)
Constant	0.087***	0.076***	0.857***	0.906***
	(0.016)	(0.015)	(0.024)	(0.030)
N	483	483	951	951

+ p <0.1, * p <0.05, ** p <0.01, *** p <0.001

outcome of the advisees. In particular, they could ignore flattering advice, recognizing it as such and thus failing to adhere to it. In line with our prediction, participants who are primed with high expectations earn less when their expectations are shown to the advisers, although this result is only directional (see Column 1 of Table 4). Similarly, as shown in Column 2 of Table 4, we also find that male participants earn less when their expectations are shown. These findings suggest

that flattering advice is not without consequences. Furthermore, our research indicates that because men are more likely to follow such advice (see Column 4 of Table 4), they compete more as a result of flattering advice.

Discussion

Our findings suggest that attempts to avoid disappointment can be a novel source of gender differences in advice. Women underestimate their mathematics test scores more than men. When these expectations are shown to advisors, they are more likely to tell men to compete against high performers than women. Notably, this turns out to be poor advice: men whose advisors are aware of their expectations receive worse advice. Our findings suggest that men with the same scores as their female counterparts end up earning less, although this result is only directional. This discrepancy may be due to men receiving more favorable advice, being more likely to follow it, and ultimately facing worse outcomes.

General Discussion

Advice has the potential to shape people's career and personal outcomes. Honest feedback, however, may be painful to learn if it falls short of one's expectations. As prior work notes, this may motivate people to avoid information and avoid seeking help (Bénabou et al., 2022; Golman et al., 2017; Jaroszewicz et al., 2021). We present evidence from three experiments that advisers are also cognizant of this cost. As a result, they present flattering advice that avoids disappointing the recipient, and correctly anticipate that this boosts how advisees perceive them. However, this flattering advice comes at a cost to advisees, who would do worse if they followed it blindly.

Moreover, a desire to avoid disappointment also means that advisers have to take into account the expectations of the advisee. We document that men are more optimistic about their performance than women are. As a result, they receive more flattering advice and are more likely to be told to aim higher. Notably, in the context of our experiment, this turns out to be bad advice ex post.

Our findings have implications for organizational practice, where mentoring and advice-giving may take into account an employees' expectation. We document this as a novel

source of gender bias. Organizations could reduce this bias by calibrating employees' expectations to reduce overconfidence.

Participants in our experiment were paired anonymously. Even so, we document this desire to avoid disappointment. We anticipate that advice would be more flattering in face-to-face communication and without anonymity. Moreover, existing relationships might make it even more difficult for advisers to be honest.

In our experiments, participants only received advice once and did not evaluate the adviser after observing the outcome of their decision. For example, advice that leads to bad outcomes may undermine the interpersonal benefits of flattery. Alternatively, people may still like the flattering advice and not fault the adviser for the bad outcome. Moreover, our setting involved only a single piece of advice on one task. Future research could examine whether people return to those who gave them flattering advice, or if they prefer someone who gave them the honest (but unpleasant) truth.

Advice has long been studied from the perspective of the receiver. Similarly, research on belief utility has examined how recipients respond to the valence of the information they receive. Here, we show that advisers, too, take into account the psychological impact of the information they convey. They may have even greater motivations to avoid conveying bad news, because they incur the interpersonal costs of delivering unfavorable information without reaping the benefits from helping someone make a better choice.

References

Banaji, M. R., & Greenwald, A. G. (1995). Implicit gender stereotyping in judgments of fame. *Journal of Personality and Social Psychology*, *68*(2), 181.

Bénabou, R., Jaroszewicz, A., & Loewenstein, G. (2022). *It Hurts to Ask*. National Bureau of Economic Research.

Chang, E. H., Milkman, K. L., Gromet, D. M., Rebele, R. W., Massey, C., Duckworth, A. L., & Grant, A. M. (2019). The mixed effects of online diversity training. *Proceedings of the National Academy of Sciences*, *116*(16), 7778–7783.

Chentsova-Dutton, Y. E., & Vaughn, A. (2012). Let me tell you what to do: Cultural differences in advice-giving. *Journal of Cross-Cultural Psychology*, *43*(5), 687–703.

Dalal, R. S., & Bonaccio, S. (2010). What types of advice do decision-makers prefer? *Organizational Behavior and Human Decision Processes*, *112*(1), 11–23.

Fiske, S. T., Cuddy, A. J., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences*, *11*(2), 77–83.

Gino, F., & Moore, D. A. (2007). Effects of task difficulty on use of advice. *Journal of Behavioral Decision Making*, *20*(1), 21–35.

Golman, R., Hagmann, D., & Loewenstein, G. (2017). Information avoidance. *Journal of Economic Literature*, *55*(1), 96–135. https://doi.org/10.1257/jel.20151245

Hagmann, D., Sajons, G. B., & Tinsley, C. H. (2024). *Base rate neglect as a source of inaccurate statistical discrimination*.

Harvey, N., & Fischer, I. (1997). Taking advice: Accepting help, improving judgment, and sharing responsibility. *Organizational Behavior and Human Decision Processes*, *70*(2), 117–133.

Ho, E. H., Hagmann, D., & Loewenstein, G. (2021). Measuring information preferences. *Management Science*, *67*(1), 126–145.

Jaroszewicz, A., Loewenstein, G., & Bénabou, R. (2021). *The pain of asking and being asked for informal help*.

John, L. K., Jeong, M., Gino, F., & Huang, L. (2019). The self-presentational consequences of upholding one's stance in spite of the evidence. *Organizational Behavior and Human Decision Processes*, *154*, 1–14.

Kanze, D., Huang, L., Conley, M. A., & Higgins, E. T. (2018). We ask men to win and women not to lose: Closing the gender gap in startup funding. *Academy of Management Journal*, *61*(2), 586–614.

Kőszegi, B., & Rabin, M. (2006). A model of reference-dependent preferences. *The Quarterly Journal of Economics*, *121*(4), 1133–1165.

Kőszegi, B., & Rabin, M. (2009). Reference-dependent consumption plans. *American Economic*

Review, *99*(3), 909–936.

Levine, E. E., Roberts, A. R., & Cohen, T. R. (2020). Difficult conversations: Navigating the tension between honesty and benevolence. *Current Opinion in Psychology*, *31*, 38–43.

Loewenstein, G., & Molnar, A. (2018). The renaissance of belief-based utility in economics. *Nature Human Behaviour*, *2*(3), 166–167.

Nosek, B. A., Smyth, F. L., Sriram, N., Lindner, N. M., Devos, T., Ayala, A., Bar-Anan, Y., Bergh, R., Cai, H., Gonsalkorale, K., et al. (2009). National differences in gender–science stereotypes predict national sex differences in science and math achievement. *Proceedings of the National Academy of Sciences*, *106*(26), 10593–10597.

Paluck, E. L., & Green, D. P. (2009). Prejudice reduction: What works? A review and assessment of research and practice. *Annual Review of Psychology*, *60*, 339–367.

Rader, C. A., Larrick, R. P., & Soll, J. B. (2017). Advice as a form of social influence: Informational motives and the consequences for accuracy. *Social and Personality Psychology Compass*, *11*(8), e12329.

Schaerer, M., Tost, L. P., Huang, L., Gino, F., & Larrick, R. (2018). Advice giving: A subtle pathway to power. *Personality and Social Psychology Bulletin*, *44*(5), 746–761.

Shalvi, S., Soraperra, I., Weele, J. J. van der, & Villeval, M. C. (2019). *Shooting the messenger? Supply and demand in markets for willful ignorance*.

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.

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.

Van Swol, L. M. (2009). The effects of confidence and advisor motives on advice utilization. *Communication Research*, *36*(6), 857–873.

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.