"Just Letting You Know...": Underestimating Others' Desire for Constructive Feedback

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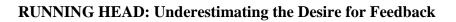
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"Just letting you know..."

Underestimating others' desire for constructive feedback

Abstract

People often avoid giving feedback to others even when it would help fix a problem immediately. Indeed, in a pilot field study (N=155), only 2.6% of individuals provided feedback to survey administrators that the administrators had food or marker on their faces. Five experiments (N=1,984) identify a possible reason for the lack of feedback: people underestimate how much others want to receive constructive feedback. We examine two reasons why people might underestimate others' desire for feedback; considerations about their own experience (e.g., anticipating discomfort giving feedback or a harmed relationship with the receiver) and/or considerations about the receiver's experience (e.g., anticipating discomfort receiving feedback or the feedback not being valuable). In Experiment 1, participants underestimated others' desire for feedback across multiple situations. This underestimation persisted when participants recalled giving feedback (Experiment 2) and when participants gave live feedback to their relationship partners in the laboratory (Experiment 3). Experiment 4 tests two interventions to make feedback-givers more accurate: taking the receiver's perspective (making feedback-givers consider the receiver's experience more) or having someone else provide the feedback (making feedback-givers consider their own experience less). Both interventions led to more accurate estimates of receivers' desire for feedback, but the perspective-taking intervention increased accuracy most. Finally, Experiment 5 showed that underestimating others' desire for feedback was associated with giving less feedback in a public speaking contest and less improvement in the feedback-receiver's performance. People's tendency to underestimate others' desire for feedback can lead them to withhold feedback that could be helpful.

Keywords: feedback; help; prosocial; relationships; misprediction

Imagine that you are chatting with a group of colleagues at work when a new client approaches. One of your colleagues introduces the client to the group, and you cringe as your colleague mispronounces the client's name—and continues to repeatedly mispronounce their name throughout the conversation. Would you pull your colleague aside afterwards to correct their mispronunciation or would you just let the colleague continue blissfully unaware? We suspect many readers may find the latter option appealing for a variety of reasons. But now imagine, instead, that *you* are the person who is mispronouncing the client's name. How much would you want someone to tell you about your mistake? In this circumstance, the majority of people probably want to learn about their error right away so that they can fix the mispronunciation as quickly as possible and repair relations with the client. This thought experiment highlights a discrepancy between a focal individual who wants to get feedback (i.e., the potential feedback-receiver) and an observer who may hesitate to provide the useful feedback (i.e., the potential feedback-giver).

These types of situations—in which one person makes an inadvertent error or social faux pas and another person has the opportunity to provide feedback that could fix the problem—are not uncommon. From warning a colleague that they interrupt clients too much during pitches, to telling a friend that they say "like" too much while giving presentations, *constructive feedback* (i.e., telling someone something specific and actionable that he or she could change with that person's well-being in mind; Bee & Bee, 1998; Cannon & Witherspoon, 2005; Harber, 1998; Hattie & Timperley, 2007)¹ can be extremely valuable. But as the opening example also illustrates, the value of the feedback might be more apparent to the person with the problem than

¹ Across various literatures, constructive feedback has also been referred to as "actionable feedback" (e.g., Cannon & Witherspoon, 2005), "corrective feedback" (e.g., Hattie & Timperley, 2007), or "developmental feedback" (e.g., Adler et al., 2016).

to the person giving the feedback. This paper examines when and why people underestimate others' desire for constructive feedback—and how this underestimation can lead people to consequently give less feedback to others, harming others' outcomes.

The Desire for Constructive Feedback

Scholars across academic fields have explored how constructive feedback, feedback that directly offers specific and actionable ideas regarding how the recipient can improve (Adler et al., 2016; Hattie & Timperley, 2007; Blunden, Yoon, Kristal, & Whillans, 2021), helps recipients. Overall, an extensive body of work indicates that constructive feedback can improve learning and performance (Ashford, 1986; Ashford & Cummings, 1983; Atkinson, 1964; Bandura & Cervone, 1983; Finkelstein & Fishbach, 2011; Fishbach et al., 2010; Kluger & DeNisi, 1996; Locke & Latham, 1990; London, Larsen, & Thisted, 1999).

Recipients seem to recognize these benefits as people commonly report wanting to get this type of feedback. In a survey of 899 full-time employees around the world, 72% of the respondents rated "managers providing critical feedback" as something that would be most helpful to them in their career going forward—and that was currently lacking (Zenger & Folkman, 2014). A McKinsey & Company survey of over 12,000 managers throughout the world reveals that managers consider "candid, insightful feedback" extremely important to their development (M = 75 on a scale measuring importance to their career development from 1-100; Cannon & Witherspoon, 2005). And a survey of medical students showed that students overwhelmingly reported wanting to receive more formative feedback (Bienstock et al., 2007). Across various professions, these anecdotal data highlight that many people express a desire for more constructive feedback.

Despite wanting constructive feedback themselves, people often avoid giving it to others. A recent performance management survey conducted in 53 countries showed that only 5% of employees believed that their managers provided candid and critical feedback about their performance (Mercer, 2013). Indeed, studies indicate that managers often intentionally avoid giving critical feedback to employees (Fisher, 1979) or inflate it when they have to provide it (Waung & Highhouse, 1997) and most managers do not believe their companies do a good job of providing such feedback (Cannon & Witherspoon, 2005). In the aforementioned survey of medical students, only 57.8% reported getting enough feedback (Bienstock et al., 2007).

Consistent with these surveys, experimental studies have found that people are reticent to deliver feedback that is negative, even when it is constructive (Brown & Levinson, 1987; Dibble, 2014; Dibble & Levine, 2010; Jeffries & Hornsey, 2012; Tesser & Rosen, 1975).

These findings suggest that people do not fully recognize how much receivers want their feedback. The failure to recognize others' desire for feedback may be an example of a broader tendency people have to focus too much on their *own perspective* when making judgments about what *someone else* might think or do (Ross, Greene, & House, 1977; Ross & Sicoly, 1979). This can lead people to be broadly inaccurate when making judgments about others. For example, people underestimate others' appreciation of being complimented (Boothby & Bohns, 2021) and their appreciation of receiving messages of gratitude (Kumar & Epley, 2018). In both of these cases, people have the potential to improve another individual's well-being (by complimenting them or expressing gratitude), but they hesitate to do so, underestimating how positively the potential recipient will react to their attempts and thus underestimating how much potential recipients want to get compliments or gratitude. Based on the many anecdotal examples of people not getting as much feedback as they want, and the prior empirical findings that people

tend to underestimate others' desire for their prosocial gestures, we hypothesize that people will not realize how much others want constructive feedback.

Hypothesis 1: People underestimate how much others want to receive constructive feedback.

How People Ascertain Others' Desire for Constructive Feedback

When trying to determine how much another person wants to get constructive feedback, two types of considerations can be made. First, if potential feedback-givers have concerns about how giving the feedback will influence them personally—such as making them feel uncomfortable or harming their relationship with the other person—through processes of motivated reasoning they may perceive receivers to also have less interest in receiving feedback. In other words, the potential feedback-giver may justify a desire to avoid their own discomfort from providing the feedback by believing that the receiver does not want feedback. This is consistent with prior research suggesting that people sometimes make incorrect judgements about others' preferences because they want to avoid the possibility of experiencing negative mood states themselves (Chambers & Windschitl, 2004; Ditto & Lopez, 1992). Second, if givers suspect that the feedback may not be valuable for receivers—perhaps making receivers feel uncomfortable or just generally believing the feedback will lack utility for receivers—this also may lead them to believe receivers will not have much interest in getting the feedback. The former considerations regard the givers' beliefs about their own experiences giving feedback whereas the latter focus on the givers' beliefs about receivers' experiences getting feedback.

These two types of possible explanations for why people underestimate others' desire for feedback—because they are thinking about their own experience or that of the other person's—encapsulate other explanations that have been proposed for why and how people give feedback. For example, Wang and Highhouse (1997) suggested that people inflate their feedback (i.e.,

make it overly positive) in order to avoid conflict (thus considering their own experience) and to try to "buffer" the potential pain of the feedback for the receivers (thus considering the receiver's experience). Likewise, Jeffries and Hornsey (2012) suggested that people are reluctant to deliver constructive feedback that can be seen as negative (e.g., implying performance could improve) for two reasons: to protect the self from the social consequences of being the bearer of bad news (thus considering their own experience), or to protect the target of the feedback from negative feelings associated with receiving feedback (thus considering the receiver's experience). Dibble and Levine (2013) relatedly show that people are reluctant to share bad news for two reasons: self-presentation reasons (thus considering their own experience) and sensitivity to receivers' emotions (thus considering the receiver's experience). Below, we consider both sets of factors—consequences for oneself and for the other person—that potential feedback-givers might consider when determining how much a potential receiver wants feedback.

Considerations about feedback-givers' own experiences. At least two primary aspects of the feedback-giving experience may influence people's willingness to provide feedback and, in turn, their assessments of others' desire for feedback. First, giving feedback can be uncomfortable, and in many situations, people seek to avoid doing things that are uncomfortable for them. Delivering performance feedback has been extensively documented as an uncomfortable and unpleasant task for the feedback-giver (Bond & Anderson, 1987). Discomfort giving feedback may stem from having to deal with the receiver's negative emotional reactions (Brown & Levenson, 1987; Rosen & Tesser, 1970; Tesser & Rosen, 1975). For instance, Jeffries and Hornsey (2012) found that the reluctance to communicate bad news is often motivated by the fear of being negatively affected themselves by the recipient's negative emotional reaction. Providing support that feedback-givers' own feelings of discomfort can influence their

willingness to provide feedback and related judgments, the more supervisors feel uncomfortable providing performance appraisals, the more they inflate feedback and give higher performance appraisal ratings (Tziner & Murphy, 1999). Similarly, managers with an overly supportive style feel more uncomfortable providing negative feedback (Moss & Sanchez, 2004).

Hypothesis 2: Potential feedback-givers' anticipated discomfort providing feedback predicts their estimation of a potential receiver's desire for feedback.

Second, another consideration people may have when giving constructive feedback particularly feedback that may be viewed as critical, such as telling someone that they could improve their performance—is how it will influence their relationship with the receiver of the feedback. People inflate their feedback in order to avoid damaging their relationships (Waung & Highhouse, 1997). Rosen and Tesser (1972) argued that people may avoid sharing critical information because they might be concerned that the receiver will associate them with the bad news, damaging their self-image. Additionally, negative feedback can lead to confrontation, defensiveness, and negative evaluations from others (Baron, 1988; Belschak & Den Hartog, 2009; Gibb, 1973). Moreover, there is evidence that critical feedback provided outside of trusting relationships can lead feedback-receivers to view the feedback-giver as indifferent, biased, or even hostile (Yeager et al., 2014). Even when giving feedback to a stranger, people may try not to sound critical because they want to be liked and maintain a positive self-image in the eyes of others (Baumeister & Leary, 1995). For these reasons, the extent to which feedback-givers perceive that their constructive feedback has the potential to harm their relationship with the receiver—or merely harm their image in the eyes of the receiver—the less they will estimate that receivers want the feedback.

Hypothesis 3: Potential feedback-givers' anticipation of how much the feedback will harm their relationship with a potential receiver predicts their estimation of the receiver's desire for feedback.

Considerations about feedback-receivers' experiences. When givers are trying to figure out receivers' desire for feedback, they are also likely to consider the ramifications of the feedback for receivers. Feedback can have both negative and positive consequences for receivers. In particular, one negative consequence is that receivers could feel discomfort (and related negative emotions such as embarrassment and shame) upon receiving the constructive feedback. While receiving constructive feedback can increase motivation and learning, if it implies that one's performance is poor, it can also elicit negative emotional reactions, such as disappointment, frustration, and a reduced sense of self-efficacy (Belschak & Den Hartog, 2009; Fishbach, Eyal, & Finkelstein, 2010; Lazarus, 1991). Additionally, receiving constructive feedback that is negative can threaten a person's self-image (Brown & Levenson, 1987; Dibble & Sharkey, 2017). Indeed, negative feedback is remembered less accurately than positive feedback, perhaps because accepting negative feedback can be harmful to people's self-esteem (Ilgen, Fisher, & Taylor, 1979; Ilgen & Hamstra, 1972). If feedback-givers anticipate receivers' discomfort, it may lead them to believe that receivers do not want the feedback. We predict that the more that feedback-givers expect receivers to be uncomfortable upon receiving feedback, the less they believe receivers will want the feedback.

Hypothesis 4a: Potential feedback-givers' anticipation of how much the feedback will make a potential receiver feel uncomfortable predicts their estimation of the receiver's desire for feedback.

Unlike feedback-givers' expectations about their own experiences providing feedback, givers' predictions about *receivers*' experiences can be directly compared with receivers' own reports about how they actually felt receiving feedback. In such a way, we can examine whether potential feedback-givers' predictions are aligned with receivers' own reports about their experiences getting feedback. Based on the pre-existing literature, we suspect misalignment in systematic ways. Most relevant, one recent set of experiments demonstrates that people refrain from having honest conversations because they expect others to react more negatively to their honesty than others actually do (Levine & Cohen, 2018). Specifically, in response to honest communication, close relational partners rated the conversation as more enjoyable, more socially connecting and more meaningful than those providing honesty expected. Extending from their work in the context of constructive feedback as opposed to honest communication, we hypothesize that feedback-givers may overestimate receivers' expected discomfort, which could then mediate givers' underestimation of receivers' desire for feedback.

Hypothesis 4b-c: Potential feedback-givers expect their feedback to make potential receivers feel more uncomfortable than receivers expect (b) and this difference in expected discomfort mediates givers' underestimation of receivers' desire for feedback (c).

One last consideration someone may contemplate when assessing a receiver's desire for feedback is the potential benefit to the receiver of receiving feedback. The reason people sometimes overcome the myriad of concerns that arise when considering giving feedback, including the feedback-giver's own discomfort, their concerns about harming the relationship, and their concerns about the receiver's discomfort, is because they recognize that feedback has the potential to be beneficial. They may understand that feedback allows people to improve, facilitates goal-directed behaviors, and leads to more motivation, learning and improved

performance (Bandura & Cervone, 1983; Finkelstein & Fishbach, 2011; Fishbach et al., 2010). Additionally, they may realize that individuals who receive negative feedback are more aware of how others perceive them, allowing them to better track their goals (Ashford & Tsui, 1991). We hypothesize that the extent to which givers recognize the value of feedback predicts their estimation of the receiver's desire for feedback.

Hypothesis 5a: Potential feedback-givers' anticipation of how valuable their feedback is predicts their estimation of a potential receiver's desire for feedback.

Given prior research showing that people attend less to others' perspectives than to their own (Ross & Sicoly, 1979; Ross, Greene, & House, 1977), we suspect that feedback-givers may likewise under-attend to how valuable their feedback could be to receivers. Akin to how egocentric bias leads people to underestimate how much others appreciate it when they express gratitude (Kumar & Epley, 2018) or give compliments (Boothby & Bohns, 2021) because people fail to consider how positive the other person would feel upon receiving their gratitude or compliment, receivers may value constructive feedback more—finding it more helpful and being more appreciative and grateful—than feedback-givers realize if they are overly focused on themselves. Extending from this, we predict that people will underestimate how much others will value their constructive feedback, which will be related to their underestimation of receivers' desire for feedback.

Hypothesis 5b-c: Potential feedback-givers expect their feedback to be less valuable than do potential receivers (b) and this difference in expected value mediates givers' underestimation of receivers' desire for feedback (c).

Overview of Studies

The current paper presents one pilot study and five experiments that each test our primary hypothesis (H1) that people underestimate others' desire for constructive feedback, explore the potential mechanisms underlying this misunderstanding (H2-H5) and related moderators of the underestimation, and, finally, examine consequences. All of our studies involve opportunities for constructive feedback that contain three characteristics: (1) the undesirable situation or behavior could be fixed or corrected by the potential feedback-recipient, (2) the potential recipient is unaware of the situation or behavior, and (3) it would be beneficial to the potential recipient to fix or correct the situation or behavior (e.g., because it is causing them embarrassment). These characteristics ensure that the feedback can be actually constructive (i.e., fixing a problem that the feedback-receiver wants fixed). Moreover, selecting situations with these characteristics provides a more conservative test of our hypotheses because we only look at contexts in which it is clear that the feedback can be helpful.

We examine real cases of giving and receiving feedback using field and laboratory studies with real feedback (Pilot Study, Experiment 3, and Experiment 5), recalled instances of real feedback (Experiment 2, Experiment 4), and feedback scenarios (Experiment 1). Our pilot study first demonstrates that, in a field setting, people are very unlikely to give constructive feedback even when it could immediately improve the potential receiver's well-being.

Experiment 1 provides initial evidence that people underestimate others' desire for feedback across ten different situations. It tests whether the effect is influenced by considerations about the potential feedback-receiver's experience (i.e., considerations about the value of feedback for receivers and their discomfort upon receiving it) or considerations about the feedback-giver's own experience (i.e., considerations about givers' own discomfort upon giving feedback and the harm it could cause to their relationship with the potential receiver). Participants in Experiment 2

recalled actual times in which they could have received or given feedback, as well as whether the feedback was actually received or given. Experiment 2 again tests whether people underestimate others' desire for feedback and tests the hypothesized psychological mechanisms. Additionally, Experiment 2 examines a potential consequence, testing whether feedback-givers who most underestimate others' desire for feedback are least likely to actually give the feedback. Experiment 3 tests whether the underestimation of desire for feedback occurs among pairs who know each other well and are required to give feedback to each other, while also testing the proposed mechanisms. Experiment 4 tests two possible interventions to make feedback-givers more accurate: increasing perspective-taking (thus nudging givers to focus more on receivers' experiences when getting the feedback) and having someone else provide the feedback (thus nudging givers to focus less on their own experiences when providing the feedback). Finally, Experiment 5 tests the extent of underestimation and its consequences by assigning participants to either compete in a public speaking competition and receive feedback from their partner or be the person giving the feedback. We test how the feedback given influences participants' real outcomes in the competition.

Throughout this paper, we assume that the divergence between receivers' reported desire for feedback and givers' prediction of their desire is due to givers *underestimating* receivers' true desire. However, another potential explanation for such a giver-receiver discrepancy is that receivers are overestimating their own true desire for feedback (and, perhaps, givers are accurate). For instance, it is possible that receivers expect to want the feedback (e.g., because they think they should), but after receiving the feedback, they wish they had not gotten it and even resent the feedback-giver more than they realized they would. Experiments 2-5 address this alternative possibility by examining receivers' expected desire for feedback (and other

expectations, like how much they would value the feedback and their discomfort) before getting the feedback as well as receivers' actual desire for feedback and experiences after getting the feedback. In particular, we note that the expected and actual desire for feedback (before and after receiving the feedback) are not significantly different, suggesting that any gap in giver/receiver expectations are driven more by givers' inaccuracy in predicting receivers' desire for feedback than by receivers' inaccuracy in predicting their own desire for feedback.

In all experiments, we report all measures, manipulations, and exclusions. We *a priori* determined to collect 100 people per experimental condition, except in the Pilot Study in which we collected data for three days. We preregistered our hypotheses and analyses for Experiments 1-5 (see links in experiments below). Our preregistrations sometimes deviate from the analyses reported in the paper; we describe all deviations at the end of the Supplemental Materials. Data, materials, and supplemental files are available online on the Open Science Foundation website (https://osf.io/9r8sq/?view_only=6914b3e75e7f49f7b2d9f9c59bca1473).

Pilot Study: Face Blemishes

To examine people's propensity to give constructive feedback, different researchers approached potential survey-takers around a university campus on three consecutive days. Each researcher wore a noticeable and fixable blemish on her face (e.g., smeared lipstick); the true purpose of the study was to record how many survey-takers told the researcher about the blemish on her face. We hypothesized that, because people underestimate others' desire for constructive feedback, few people would provide constructive feedback and help the researcher in these conditions.

Method

Participants. We planned to recruit as many participants as possible during a busy campus center at a university during lunchtime on three consecutive weekdays. Out of 217 recruited participants, following our *a priori* exclusion criteria, we excluded two participants because they did not consent to the survey and another three participants because they reported having heard about the survey before from a friend or classmate. Of the remaining 212 participants, 57 (26.9%) claimed not to notice the blemish on the researcher's face² and therefore did not complete the survey. In total, 155 participants completed the entire survey in exchange for \$5.00 ($M_{Age} = 22.8$ years, SD = 9.3; 61% female).

Procedure. Two researchers conducted the study at a time: one of whom was assigned to recruit participants, and the other who wore a face blemish about which they could receive feedback (i.e., the target researcher). The recruiter approached students and asked them if they were interested in taking a survey for \$5.00. If they said yes, the recruiter gestured towards the target researcher, a few feet away with her back turned. The target researcher either wore a red marker line across her nose (Day 1), held a chocolate bar in her hand and had a chocolate smudge on her face (Day 2), or wore pink sparkly lipstick with a lipstick smudge across her face (Day 3). See Figure 1 for photos of the researchers.

Figure 1

Photos of the Researchers in Pilot Study

² Given how obvious the blemish was on the researcher's face (see Figure 1), we think it is very unlikely that 27% of the sample truly did not notice it, and suspect instead that participants may have claimed not to notice to avoid further questioning (or having to give feedback). However, we took participants at their word.







Note. This figure shows the researchers with red marker (day 1), a chocolate smudge (day 2), and a lipstick smudge (day 3) on their faces.

The target researcher verbally asked the participants several questions to ensure that the participants looked at the target researcher's face (and would thus notice the blemish) before

giving them the survey to complete. The researcher asked participants if they were a student, what they were studying, if they had done a study with the lab before, and if yes, which studies they had participated in before. Participants then completed the survey, were paid, and thanked. While they completed the survey, the researcher recorded whether or not the participant told them about the blemish on their face (yes, no, other).

Survey. To ensure our analyzed sample noticed the face blemish and was not aware of the nature of the study, participants completed the following questions: "The researcher who handed you the survey a few minutes ago had something on their face. Did you notice this?" (Yes / No) and, "Did you hear about something like this happening from anyone who took the study earlier" (Yes / No), and, "Do you know the researcher?" (Yes / No). Participants who said "no" to the first question or "yes" to the other two questions were directed out of the survey. Remaining participants then predicted, "How much do you think someone in that scenario (talking to people with something on their face) would want someone to tell them?" (1 = they definitely would not want to be told, 10 = they definitely would want to be told). To better understand the reasons why participants gave feedback or not, we asked an open-ended question: "Why did you choose [not] to tell the researcher about the mark on their face?"

To measure whether participants were more likely to give feedback if they were inclined to be prosocial, we first included three previously-validated scales of prosocial orientation (Grant, 2008), other-orientation (De Dreu & Nauta, 2009), and conflict avoidance (Morris et al., 1998) (see Supplemental Materials for items). At the end of the survey, we asked a series of exploratory items asking participants to predict (if they did not give feedback) or describe (if they did give feedback) the consequences of the feedback and to rate several aspects of the situation (see Supplemental Materials).

Results

Of the 155 people who reported noticing the face blemish, only four people (2.6%) told the researcher about it. Two research assistants (α = .70) blind to hypotheses coded participants' answers to the question of why participants did not tell the researcher about the blemish. We categorized the participants' answers into two categories of reasons, representing participants' intuitions about giving feedback: 1) Considerations about the self (for example, that the participant felt it was not their business to tell the researcher; 37% of comments), and 2) Considerations about the receiver (for example, that the participant did not want to offend or embarrass the researcher, or thought the researcher must already know; 40% of comments). The remaining 23% of comments contained other reasons (e.g., the researcher looked busy; it was not a good time). See Table 1 for example representative answers.

Table 1Participants' Stated Reasons for Not Providing Constructive Feedback in the Pilot Study

Reason	Representative Quotes	
Considerations about the self	It's not my place to comment on it. I don't know her, I'm just here to take the study not interrogate her on her appearance.	
	I didn't want to judge anyone.	
	It was not my business to tell her; I didn't want to be rude.	
Considerations about the potential feedback- receiver	I wasn't sure what it was, so I didn't want to embarrass them by drawing attention to it.	
	I wasn't sure if it was food or a birth mark or rash and didn't want to offend her.	
	I didn't want to make them feel bad about not knowing there was something on their face and embarrassing them.	

After realizing the purpose of the study, the participants predicted that someone walking around with something on his or her face would want to know to be at about the midpoint of the 1-10 scale item: M = 5.67 (SD = 2.84). Because the number of participants who informed the researcher about the face blemish was even lower than expected (i.e., only four participants), we did not have a large enough sample to analyze differences between those who told and those who did not provide feedback on the prosocial orientation, other-orientation, or conflict management

Discussion

scales.

Our pilot study showed that very few people actually provide constructive feedback even when they notice a problematic situation (e.g., a mark on someone's face) that could be easily fixed via their feedback. The average person in this study recognized that an individual with something on their face would probably want to know about it, yet still chose not to provide feedback. This study further sought to understand intuitive beliefs about feedback, and identified the most common reasons why people report not giving feedback: people assume that someone else will tell the target individual, do not want to offend or embarrass the target individual, or assume that the target individual already knows. Participants' intuition for not providing feedback seems potentially faulty: assuming someone else would tell the researcher is risky because very few people (2.6%) did tell, and it is likely that, rather than decreasing the researcher's embarrassment, by withholding feedback the participants actually cause greater embarrassment in aggregate for the researcher. The rest of our experiments directly test whether people underestimate the others' desire for feedback, which we did not measure in these pilot data.

Experiment 1: Feedback at Work

Experiment 1 assigned people to either imagine giving or receiving feedback about ten different workplace situations. We designed scenarios that fit our theoretical criteria (i.e., first, the undesirable situation or behavior could be fixed or corrected by the potential feedback-receiver; second, the potential receiver is unaware of the situation or behavior; third, it would benefit the potential receiver to fix or correct the situation or behavior, especially because the situation could cause the person embarrassment or awkwardness). For instance, two of the scenarios were having sweat stains on one's shirt and repeatedly mispronouncing a word during a presentation; these are undesirable and potentially embarrassing situations, and givers were told that the person was unaware of the problem.

Givers predicted receivers' desire for feedback and how they would feel about receiving feedback whereas receivers reported how much they wanted to get feedback and how they would feel about receiving it. Our primary purpose was to test whether givers underestimate receivers' desire for feedback. We preliminarily examined the two hypothesized reasons for why givers may underestimate the desire for feedback: givers' considerations about their own experience providing the feedback, and their considerations about receivers' experience when receiving feedback.

Additionally, we explored the impact of two other variables: relationship closeness and consequentiality of the situation. With regard to relationship closeness, it is possible that people who are close to each other, and know each other well, may be more accurate at predicting each other's desire for feedback. However, it is also possible that there is more at stake with close relationships, and concerns about damaging the relationship may be higher, leading to a bigger gap in estimating the desire for feedback. To explore relationship closeness, we manipulated

whether participants imagined giving or receiving feedback to or from strangers, acquaintances, or close friends.

Turning to the consequentiality of the situation, we were interested in how consequentiality—when an issue has more important or significant consequences for a person—could affect the estimation of the person's desire for feedback. For example, having sweat stains on one's shirt or having food on one's face could be considered more minor problems that have little potential for long-term negative consequences, whereas making repeated errors in reports at work could yield significant career consequences. To test the consequentiality of the situation, we varied our scenarios such that half of the scenarios were less consequential (e.g., having sweat stains on one's shirt) whereas the other half were more consequential (e.g., making repeated errors at work).

Method

We preregistered our hypotheses and analyses at http://aspredicted.org/blind.php?x=7gq9dj.

Participants. We planned to recruit 720 participants, aiming for 120 in each of the six experimental conditions to have sufficient statistical power to detect a medium effect size. In total, 736 adults from Prolific Academic agreed to participate in exchange for \$1.60. We recruited participants who had been recently employed, as the scenarios we asked them to imagine took place in a workplace. We asked a pre-screening question to confirm that participants had been employed full-time in a job recently: ("Have you had a full-time job in the last 12 months?" Yes/No). This was asked before any survey materials were presented; 4 participants did not pass the prescreen questions, and the 721 remaining participants took the survey ($M_{Age} = 34.7$ years, SD = 9.9, 37% female).

Design. The experiment design was 2 (Role: Feedback-Giver vs. Feedback-Receiver) \times 3 (Relationship Closeness: Stranger, Acquaintance, Close Friend) \times 2 (Consequentiality: Low Consequential, High Consequential), between-participants. Each participant viewed three out of ten possible scenarios (within-subjects; randomized order).

Procedure. The survey asked participants to imagine experiencing different social scenarios at work and report how they would feel in those situations. The scenarios that involved problems that we thought would be less consequential were: 1) having sweat stains on one's shirt, 2) having a rip on the seat of one's pants, 3) having food on one's face, 4) mispronouncing a client's name, and 5) obviously texting on one's phone during a meeting. The more consequential scenarios were: 6) making an error in a report, 7) speaking extremely quickly during a presentation, 8) interrupting a client multiple times during a meeting, 9) framing one's questions in a very aggressive way, and 10) sounding rude in emails.

The primary dependent variable was the difference between givers' and receivers' predicted desire for receiving feedback (Givers: "How much do you think your colleague wants to be told that they have sweat stains on their shirt?" 0 = definitely does not want to be told, 10 = definitely wants to be told; Receivers: "How much do you want your colleague to tell you that you have sweat stains on your shirt?" 0 = definitely do not want to be told, 10 = definitely do want to be told). To be thorough, we additionally estimated givers' likelihood of providing feedback: ("How likely are you to actually tell your colleague that they have sweat stains on their shirt?" 0 = very unlikely, 10 = very likely) and receivers' predictions of givers' likelihood: ("How likely do you think it is that your colleague will tell you that you have sweat stains on your shirt?" 0 = very unlikely, 10 = very likely).

We also varied relationship closeness in the imagined scenarios. Givers and receivers in the "Stranger" condition imagined that the colleague they were witnessing in the scenario was a stranger. Their instructions were to imagine that "this is a colleague who you have never seen before, and you aren't sure if you will see them again in the future. You consider this colleague to be a stranger." Givers and receivers in the "Acquaintance" condition imagined that the colleague they were witnessing in the scenario was an acquaintance. Their instructions were to imagine that "this is a colleague who you see from time to time (about once a week) and know a little bit. You consider this colleague to be an acquaintance." Lastly, givers and receivers in the "Close Friend" condition imagined that the colleague they were witnessing in the scenario was their close friend. Their instructions were to imagine that "this is a colleague who you see all the time and know very well. You consider this colleague to be a close friend." All subsequent questions about desire for receiving feedback and predicted value and discomfort of receiving feedback were phrased according to the assigned relationship.

Next, we told participants to imagine that, regardless of how they responded in the prior questions, they gave or were given feedback, and then asked them to predict the giver's and receiver's experience. To measure expectations of the receiver's experience, we examined receivers' discomfort upon getting feedback and the value they would get from the feedback. Using the sweat stain scenario as an example, we asked five items measuring expected receiver discomfort (α = .88 for givers and α = .89 receivers), including how 1) uncomfortable 2) embarrassed 3) foolish 4) self-conscious "do you think your colleague will feel when you tell them that they have sweat stains on their shirt?" (0 = not at all uncomfortable/embarrassed/foolish/self-conscious); and 5) "How much do you think that it will hurt your colleague's feelings when you tell them that they

have sweat stains on their shirt?" ($0 = not \ at \ all$, $10 = very \ much$). We measured the expected value of the feedback for receivers with three items ($\alpha = .88$ for givers and $\alpha = .94$ receivers): 1) "How valuable do you think it would be for your colleague to know that they have sweat stains on their shirt?" ($0 = not \ at \ all \ valuable$, $10 = very \ valuable$); 2) "How much do you think that knowing that they have sweat stains on their shirt will help your colleague?" ($0 = not \ at \ all \ helpful$, $10 = very \ helpful$); and 3) "How grateful would your colleague be that you told them that they have sweat stains on their shirt?" ($0 = not \ at \ all \ grateful$, $10 = very \ grateful$). Receivers answered the above items but rephrased so that receivers reported their own discomfort and expected value from the feedback.

To measure expectations of the giver's experience, we examined givers' discomfort upon providing the feedback and perceptions of the feedback harming the giver/receiver relationship. We measured expected giver discomfort with four items (α = .90 for givers and α = .89 receivers), asking how 1) uncomfortable 2) embarrassed 3) foolish and 4) self-conscious "do you think you will feel when you tell your colleague that they have sweat stains on their shirt?" (0 = not at all uncomfortable/embarrassed/foolish/self-conscious, 10 = very uncomfortable/embarrassed/foolish/self-conscious). Lastly, we measured expected relationship harm/benefit with four items (reverse-coded, α = .93 for givers and α = .89 receivers): 1) "How much do you think it will affect your relationship with your colleague after you tell them that they have sweat stains on their shirt?" (0 = it will harm our relationship, 10 = it will improve our relationship); 2) "How much do you think your colleague will like you after you tell them that they have sweat stains on their shirt?" (0 = way less, 10 = way more); 3) "How much do you think your colleague would want to see and/or interact with you after you tell them that they have sweat stains on their shirt?" (0 = they would definitely not want to see/interact with me again, 10 = they would

definitely want to see/interact with me again) and 4) How much do you think that your colleague will believe you care about them because you told them that they have sweat stains on their shirt? (0 = not at all, 10 = very much). Receivers answered the above items but rephrased so that receivers predicted givers' discomfort and their own beliefs about the relationship. Additionally, we preregistered and measured givers' reports and receivers' predictions for how good the giver would feel from giving feedback: "How much would you feel good about telling your colleague [do you think your colleague would feel good about telling you] that they [you] have sweat stains on their [your] shirt (for instance, because the information could be helpful)?" (See Supplemental Materials for analysis).

At the end of the survey, we asked participants four questions as manipulation checks for evaluating which scenarios were higher in consequentiality: ³ 1) "How deleterious do you think the consequences would be for the person to whom it happened or the person who did it (assuming that person did not realize what happened or what they did)?" (1 = not bad at all, 7 = extremely bad); 2) "How easy would it be for the person to whom it happened/the person who did it to fix or change the situation (after they realize what happened or what they did)?" (1 = not easy at all, 7 = extremely easy); 3) "How negatively do you think it reflects on the person to whom it happened/the person who did it (assuming that person did not realize what happened or what they did)?" (1 = not negatively at all, 7 = extremely negatively); and 4) "How much do you think people will assume it was the fault of the person to whom it happened/the person who did it (assuming that person did not realize what happened/what they did)?" (1 = not their fault at all, 7 = very much their fault).

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³ Due to a survey error, we only asked these manipulation check questions for 9 out of the 10 scenarios. The "interrupting" scenario was left out of the manipulation check questions. We also pre-registered that we would collect participants' responses about whether they have actually experienced each of the situations at work, but, due to survey error, this question was not included in the survey.

Results

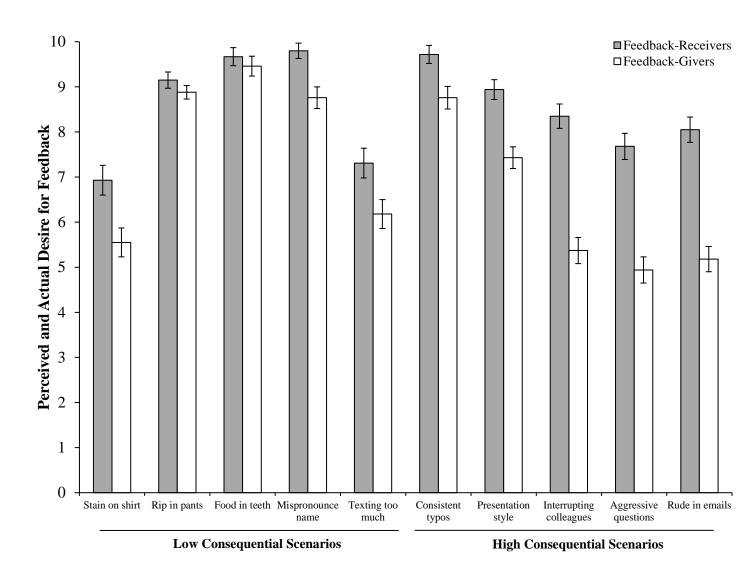
Desire to give and receive feedback. Supporting our primary hypothesis (H1), across the ten scenarios givers believed that potential receivers wanted to be told (M = 6.16, SD = 3.31) less than receivers reported actually wanting to be told (M = 7.66, SD = 2.82), t(2,158) = -11.36, p < .001, d = -0.49, thereby underestimating receivers' desire for feedback. This result emerged for every scenario individually, t's < -2.42, p's < .016, d's < -0.33, except for the "food stuck in teeth" scenario (p = .47) and the "rip in pants" scenario (p = .26) (see Figure 2).

Moreover, consistent with this result, givers reported being less likely to actually provide potential receivers with feedback (M = 6.34, SD = 3.30) than receivers wanted to receive the feedback (M = 7.66, SD = 2.82), t(2,158) = -10.00, p < .001, d = -0.43. As an exploratory analysis, receivers also predicted that givers would be more likely to give the feedback (M = 5.84, SD = 2.95) than givers actually reported they were to give it (M = 6.34, SD = 3.30), t(2,158) = 3.72, p < .001, d = 0.16. In other words, givers underestimated receivers' desire for feedback and were less likely to give feedback than receivers wanted and expected.

Figure 2

Predicted and Actual Desire for Constructive Feedback in Experiment 1

⁴ Although we pre-registered a simple t-test analysis, we conducted a follow-up robustness analysis to control for the effect of scenario in a 2 (condition) \times 10 (scenario) ANOVA. A main effect of condition and scenario emerged, qualified by a significant interaction (Fs = 133.82, 51.44, and 29.05, respectively, $ps < .001, \chi^2 > .013$).



Note. This figure shows givers' predicted and receivers' actual desire for constructive feedback across ten workplace scenarios in Experiment 1. Givers systematically underestimate receivers' desire for feedback. Error bars represent 95% confidence intervals.

Potential mechanisms: Considerations about own experience and receivers'

experience. To test which of givers' predictions are most closely aligned with their beliefs about receivers' desire for feedback, we conducted a regression model with givers' predictions about receivers' desire for feedback as the outcome variable, and givers' beliefs about their anticipated

discomfort, receivers' discomfort, the potential for relationship harm, and the value of the feedback to the receiver as predictor variables. Results demonstrated that givers' anticipated discomfort providing feedback was a significant predictor of givers' beliefs about receivers' desire for feedback (b = -.10 p = .003), as was givers' expectations about relationship harm (b = -.48, p < .001) and givers' beliefs about receivers' value for the feedback (b = .58, p < .001), providing evidence for hypotheses 2, 3, and 5a, respectively. We did not find support for hypothesis 4a as givers' beliefs about receivers' discomfort was not a significant predictor. We also conducted robustness analyses controlling for the consequentiality of the feedback and relationship closeness and found the same pattern of results.

We further tested for other giver/receiver discrepancies in predicted receiver experiences (testing hypotheses 4b and 5b). In a mixed-effects model with a random effect for participant (because each participant evaluated 3 scenarios) and a fixed effect for scenario, givers significantly overestimated how uncomfortable it would be for receivers to get feedback (M = 5.50, SD = 2.24) compared to receivers' estimates (M = 5.04, SD = 2.52), t(2,158) = 3.36, p < .001, d = 0.19; and givers significantly underestimated how much the receivers would value getting feedback (M = 6.81, SD = 2.43) compared to receivers' estimates (M = 7.63, SD = 2.47), t(2,158) = -6.95, p < .001, d = -0.34.

To test hypotheses 4c and 5c, we tested whether givers' overestimation of receiver discomfort and underestimation of receiver value significantly mediated their underestimation of receivers' desire for the feedback. In a bootstrap mediation model (10,000 iterations) that included role condition as the independent variable, predictions and reports of receiver value and receiver discomfort as potential mediators, and desire for feedback as the dependent variable, a significant indirect effect emerged for receiver value (*indirect effect* = .71, 95% CI [.53, .88], p <

.001) and receiver discomfort (*indirect effect* = .083, 95% CI [.041, .130], p < .001) as mediators, although we note that the discrepancy between predicted and actual receiver value was a much stronger mediator than the discrepancy between predicted and actual receiver discomfort. Thus we found support for both hypotheses 4c and 5c, although directionally stronger support for 5c.

Consequentiality. Supporting our manipulation, the low consequential scenarios were indeed perceived to be less consequential than the more-consequential scenarios. The low consequential scenarios reflected less negatively on the person (M = 3.88, SD = 1.09) compared to the high consequential scenarios (M = 4.72, SD = 1.05), t(1,440) = -14.91, p < .001, d = -0.78, were rated as less deleterious (M = 4.23, SD = 1.09) compared to the high consequential scenarios (M = 4.69, SD = 1.07), t(1,440) = -8.07, p < .001, d = -0.42, were considered less the person's fault (M = 4.28, SD = 1.13) compared to the high consequential scenarios (M = 5.22, SD = .99), t(1,440) = -16.45, p < .001, d = -0.87, and were considered easier to fix (M = 4.86, SD = 1.09) compared to the high consequential scenarios (M = 4.47, SD = 1.08), t(1,440) = 7.22, p < .001, d = 0.38.

In a regression analysis that predicted the desire for feedback with role type (giver vs. receiver), consequentiality (low vs. high consequential), and the interaction between role and consequentiality as predictors, there were main effects for role (b = 2.21, p < .001) and consequentiality (b = 1.62, p < .001), as well as an interaction (b = -1.38, p < .001). Decomposing the interaction, the effect of role was stronger among the high consequential scenarios, such that givers were even less likely to recognize the desire for feedback (M = 5.34, SD = 3.17) that receivers felt (M = 7.55, SD = 2.69), t(1,078) = -12.30, p < .001, d = -0.75, in high consequential scenarios compared with the low consequential scenarios, although givers

still underestimated the desire for feedback in those scenarios as well (M = 6.97, SD = 3.24) compared to receivers (M = 7.78, SD = 2.93), t(1,078) = -4.26, p < .001, d = -0.26.

Relationship closeness. In a regression analysis that predicted the desire for feedback with role type (giver vs. receiver), relationship closeness (stranger vs. acquaintance vs. close friend), and the interaction between role and relationship closeness as predictors, there were main effects for role (b = 1.28, p < .001) and relationship type: compared to a baseline of strangers, the coefficient for acquaintance (b = .73, p = .001) and close friend (b = 1.71, p < .001) were significant. However, the interaction terms between relationship type and role were non-significant (for acquaintance: b = .57, p = .07; for close friend: b = .45, p = .15), suggesting that the underestimation of feedback givers and receivers operated similarly regardless of relationship closeness.

Discussion

Across ten different situations, participants consistently underestimated others' desire for constructive feedback, an effect that was stronger when the potential feedback-recipient's issue seemed more consequential. People were less likely to give feedback than others both wanted and expected. The type of relationship that givers and receivers had with each other (close friends, acquaintances, or strangers) did not moderate the effect, indicating that the underestimation of desire for feedback operates similarly regardless of relationship closeness. These results highlight the generalizability and extent of how much people underestimate others' desire for feedback: the result was statistically significant across eight of the ten situations tested, and the average effect size was large (Cohen, 1988).

Moreover, we suspect that this test may have been conservative because the situations were simply imagined; when experiencing such situations in real life, potential givers might be

even less likely to provide feedback (as our Pilot Study suggested) and potential receivers may be even more likely to want it (because it would be more consequential). Indeed, it is remarkable that merely asking participants to take the perspective of the giver versus receiver leads them to have such different opinions about the feedback. However, a downside to the hypothetical paradigm employed in Experiment 1 is that various aspects of the situation could change when experienced in reality (e.g., people may experience more embarrassment than they predict upon receiving feedback). To address this, we test the robustness of the results using recalled feedback experiences in Experiment 2 and 4, and live feedback experiences in Experiments 3 and 5.

Experiment 1 also suggests two possible reasons for why people underestimate the desire for feedback: they may be focusing too much on their own potentially negative experience (e.g., anticipating discomfort and relational harm), and/or not fully considering the receiver's experience (e.g., failing to recognize the value for the receiver). We continue to explore possible mechanisms for the underestimation of desire for feedback in future studies.

Experiment 2: Recalled Feedback

The purpose of Experiment 2 is to test for the underestimation for desire for feedback in actual experiences, and explore our proposed mechanisms for the underestimation. We used a critical incidence technique (Flanagan, 1954) in which we ask participants to recall feedback scenarios, allowing us to canvas and examine a variety of real-world situations in which people had the opportunity to give feedback or not (potential feedback-givers), or could have received feedback from someone or not (potential feedback-receivers). This study captures the context of hundreds of real feedback situations from the perspectives of both givers and receivers, lending external validity to our effect and also underscoring how frequently situations with the potential for feedback occur in everyday life.

Method

We preregistered our hypotheses and analyses at:

https://aspredicted.org/blind.php?x=t983pn.

Participants. We planned to recruit 400 participants, aiming for 100 in each experimental condition to have sufficient statistical power to detect a medium effect size. In total, 403 adults from Prolific Academic ($M_{age} = 32.17$ years, SD = 11.76, 55% female) agreed to participate in a study in exchange for \$0.96.

Design. We manipulated two conditions (Feedback-Giver vs. Feedback-Receiver) between-participants, randomly assigning participants to either recall an instance when they had the potential to give feedback or to receive feedback. We further measured whether potential givers actually provided feedback or not, and whether potential receivers actually received feedback or not.

Procedure. Participants in the giver / receiver condition read the following:

For this study, please recall a time when [you witnessed someone do / you did] something important incorrectly or poorly, without [them] realizing it. This situation must have occurred without [that person's / your] knowledge at the beginning, even if [they / you] later realized what [they / you] had done wrong. For example, the following situations would satisfy these criteria: [Someone was speaking / you spoke] too quickly during a work presentation without realizing it; [Someone was interrupting / you interrupted] a client repeatedly during a meeting without realizing it; [Someone was asking questions in an aggressive way at work without realizing it / Your questions at work sounded aggressive without you meaning it]; [Someone was coming across as rude in their emails without realizing it / You sounded rude in your emails without realizing it]; [Someone was making repeated / you made] errors or typos at work without realizing it. Please take a minute to recall a time when you witnessed something like this.

Participants wrote a few sentences describing the situations they remembered. To ensure that participants followed our instructions, givers reported, "Was it possible for you to alert the person to what they did wrong (so they realized what they did)?" and receivers reported, "Was it

possible for someone to let you know that you did something or were doing something wrong?" (Yes / No). Participants who answered "No" were asked to generate a new situation, and asked the same question after writing the second situation. If they answered "No" again, they were excluded from the analysis, as we preregistered. Four participants answered "no" two times, and were excluded from our analysis. Additionally, one participant did not pass the attention check and was excluded from the analysis, as we preregistered. The final number of participants in our analysis was 398.

Table 2

Example Participant Descriptions from Givers and Receivers who Either Did or Did Not Provide or Receive Feedback in Experiment 2.

Condition	Example Participant Descriptions
Potential feedback-givers who did not	Someone was telling others to do something at work on a Slack channel. However, they didn't realize that it came across in a mean way. They didn't ask politely. All it would have taken was adding a few words to their request.
provide feedback	Someone was repeatedly interrupting a zoom call due to likely a bad internet connection. They had no idea they kept talking over people. It was embarrassing to watch as the problem kept happening and was not corrected.
Feedback-givers who did provide feedback	I witnessed my immediate supervisor make a comment to an employee that she did not believe was hostile. When I explained how it could be interpreted as so, she immediately regretted saying it. In more detail, an employee had some concerns that she wanted to be addressed. My supervisor listened, but immediately said "is that it?" Employee made a face when responded by that. My supervisor didn't mean any ill will by it, but more so meant that she thought there were more issues that needed to be addressed My pastor was visiting my house. His car would not start and the symptoms were indicative of a failed battery. His wife bought a new battery and I loaned

	him tools to install the new battery. His car still would not start. I looked at his installation and told him that he had not removed a plastic cap (an insulator) from one of the battery posts. I removed the cap and reconnected the battery cable and the car started.
Potential feedback- receivers who did not	Usually with friends when I get passionate about a topic I come off as very aggressive and argumentative. I later feel badly for how I acted.
receive feedback	I once spoke too quickly during a work presentation which made the information that I was delivering harder to understand.
Feedback-receivers who did receive	I was upset because of something at work related to our weekly schedule. I spoke loudly and rudely to my co-workers and supervisor. I did not realize how I was acting until someone brought it to my attention. I tried from the point on to watch the tone of my voice
feedback	There was a situation where I made an error in calculating with a typo in a formula in an Excel sheet. I then shared these inaccurate results with my work team. Then they pointed out that the data looked off, and I realized my mistake. It was embarrassing.

After writing about the scenarios, participants completed our primary dependent measure of interest: they either predicted the other person's desire for feedback (giver condition) or reported their own desire for feedback (receiver condition) using the same items from Experiment 1. To measure whether the feedback was given or received or not, we asked givers, "Did you tell the person about the situation?" (Yes / No) and receivers, "Did anybody tell you about the situation?" (Yes / No).

To measure potential reasons for the underestimation of the desire for feedback, we asked the same items described in Experiment 1 about considerations about the self (anticipated discomfort providing feedback, $\alpha = .86$; and expectations about relationship harm, $\alpha = .86$) and considerations about the receiver (beliefs about receivers' expected discomfort upon getting

feedback, α = .90; and about receivers' expected value from the feedback, α = .88). Participants who did not give or receive feedback were asked to imagine that they had, and make predictions using the same items.

At the end of the survey, as control variables, we asked receivers to report the following about the situation they recalled: "How negatively do you think it reflected on you (assuming that you did not realize what you did?)" (0 = not negative at all, 10 = extremely negative); "How certain are you that the feedback [you received was / imagined receiving would be] useful or constructive?" (0 = not useful or constructive at all, 10 = extremely useful or constructive); and "To what extent do you think that the feedback [you received helped / you imagined receiving would help] your outcomes?" (0 = [did / would] not help at all, 10 = [extremely helped / would extremely help]). Givers answered parallel questions from their perspective (e.g., "How negatively do you think it reflects on the person who did it (assuming that person did not realize what they did?)". We also asked givers and receivers to report how well they knew the other person (1 = the person was a total stranger, 7 = the person was a close friend or significant other) and write optional extra information about the situation (see Supplemental Materials for detail).

We also asked the potential receivers questions about who told them, whether they knew the person, and open-ended questions about how they told them and what they were thinking (see Supplemental Materials).

Results

Desire to give and receive feedback. Supporting our primary hypothesis, givers believed that potential receivers wanted to be told (M = 5.43, SD = 3.40) significantly less than receivers

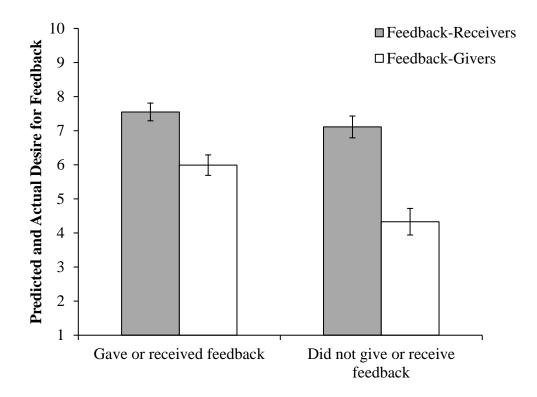
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reported actually wanting to be told (M = 7.28, SD = 2.91), t(396) = -5.82, p < .001, d = -0.60, thereby underestimating receivers' desire for feedback.

In a follow-up 2 (condition: giver or receiver) \times 2 (feedback given/received or not) ANOVA, a significant interaction emerged between condition and whether feedback was given or received, F(1, 395) = 11.12, p = .001, $\chi_p^2 = .025$ (see Figure 3). Givers who chose *not* to give feedback significantly underestimated how much these receivers wanted to be told (M = 4.40, SD = 3.26) compared to givers who did choose to provide feedback (M = 5.96, SD = 3.34), t(193) = -3.08, p = .002, d = -0.47. This result suggests a potential consequence for the underestimation of feedback: givers who more severely underestimate receivers' desire for feedback may also be less likely to actually give feedback. Receivers, on the other hand, wanted feedback just as much whether they were told (M = 7.50, SD = 2.84) or not (M = 6.96, SD = 2.98), t(201) = 1.30, p = .19, d = 0.19.

Figure 3

Predicted and Actual Desire for Constructive Feedback in Experiment 2



Note. This figure shows predicted and actual desire for constructive feedback, by potential and actual givers and receivers, for situations in which they gave or received feedback or not in Experiment 2. Givers who did not provide feedback to a potential receiver especially underestimated receivers' desire for feedback. Error bars represent 95% confidence intervals.

Potential mechanisms: Considerations about own experience and receivers'

experience. To test which of givers' experiences or predictions are most closely aligned with their beliefs about receivers' desire for feedback, we conducted a regression model with givers' predictions about receivers' desire for feedback as the outcome variable, and givers' beliefs about their anticipated discomfort, receivers' discomfort, the potential for relationship harm, and the value of the feedback to the receiver as predictor variables. Results demonstrated that givers' expectations about relationship harm was a significant predictor of givers' predictions about

receivers' desire for feedback (b = -.43, p = .001) as were givers' beliefs about receivers' value for the feedback (b = .54, p < .001) and givers' beliefs about receivers' discomfort (b = -.25, p < .01), providing evidence for hypotheses 3, 5a, and 4a, respectively. We did not find evidence for hypothesis 2 as givers' discomfort providing feedback was not a significant predictor.⁵

We further tested for other giver/receiver discrepancies in predicted receiver experiences (testing hypotheses 4b and 5b). Unlike in Experiment 1, givers *underestimated* how uncomfortable it would be for receivers to get feedback (M = 4.40, SD = 2.57), compared to receivers' own predictions or reports (M = 5.48, SD = 2.57), t(397) = -4.11, p < .001, d = -0.41. Givers also underestimated how much the receivers would value receiving feedback (M = 6.17, SD = 2.43) compared to receivers' predictions or reports (M = 7.35, SD = 2.48), t(396) = -4.60, p < .001, d = -0.46.

To test hypothesis 5c, we tested whether givers' underestimation of receiver value significantly mediated their underestimation of receivers' desire for the feedback. In a bootstrap mediation model (10,000 iterations) that included role condition as the independent variable, predictions and reports of receiver value as a potential mediator, and desire for feedback as the dependent variable, a significant indirect effect emerged for receiver value (indirect effect = -.97, 95% CI [-.60, -1.37], p < .001). Thus we find support for hypothesis 5c.

Finally, we examined whether our control variables affected wanting to give or receive feedback. Controlling for how negatively the situation reflected on the target person, how useful or constructive they expected the feedback to be, how helpful the feedback would be to the target

⁵ Note that we did not replicate our Study 1 finding that givers' own discomfort predicted their underestimation of receivers' desire for feedback. One possible reason for the lack of replication is that givers may not have accurately recalled their discomfort in this paradigm. Our live feedback Experiments 3 and 5 allow us to examine actual feelings of discomfort as opposed to recalled feelings.

⁶ Note that we did not test hypothesis 4c because, unlike in Experiment 1, we did not find evidence that givers overestimated receivers' discomfort.

person's outcomes, and how well the participants knew the other person, the effect of giver/receiver condition on the desire for feedback remained, b = -2.25, p < .001. Moreover, two of the control variables significantly moderated the effect of condition (how negatively the situation reflects on the person: b = -.34, p < .001; how useful the feedback would be: b = .29, p = .010) such that givers' underestimation of receivers' desire for feedback *increased* when givers felt the feedback reflected badly on the receiver, and *decreased* when givers believed the feedback would be useful. The other interactions were statistically weaker (how helpful the feedback would be: b = .19, p = .078; how well the giver knew the receiver: b = .30, p = .09).

Discussion

Experiment 2 provides further evidence for our hypothesis that givers underestimate how much receivers want to receive constructive feedback. Importantly, this experiment used a critical incidence technique which allowed us to preserve the dynamic of the myriad relational and status differences that exist between a potential feedback-giver and receiver. Participants recalled a variety of situations that occurred with friends, family members, subordinates, bosses, peers, and strangers. Replicating the giver-receiver gap with a large variety of contexts (e.g., personal and professional) and relationships lends further external validity to our findings. Moreover, 99% of participants were able to remember and vividly describe a feedback incident that fit our criteria, regardless of their assignment to giver or receiver condition, highlighting how common these occurrences are in everyday life. This experiment also suggests a consequence of the underestimation of desire for feedback. Givers who more strongly underestimated the desire for feedback were less likely to have given feedback compared to givers who were more accurate in estimating the desire for feedback.

This experiment again suggests two possible reasons for why people underestimate the desire for feedback: they may be focusing too much on their own experience (of discomfort and anticipated relational harm), and/or not fully considering the receiver's experience (e.g., how much value they could get from the feedback). It also highlights several possible moderators of the difference between givers' predictions and receivers' reports of the desire for feedback: givers' underestimation of receivers' desire for feedback was larger when they presumed that the feedback could reflect negatively on the receiver, and smaller when givers thought the feedback would be useful. As in Experiment 1, we found that the relationship closeness between the giver and receiver did not have a strong impact on givers' underestimations.

A final contribution of this experiment is additional insight into whether the giverreceiver divergence is due to givers' inaccuracy in judging receivers' true preferences or
receivers misunderstanding their own preferences. Receivers' reports of their desire for feedback
when they received it did not differ from their predicted desire for feedback when they did not,
suggesting that their predictions are accurate—and that givers' predictions may be less accurate.

Moreover, because receivers recalled their desire for feedback for something that happened in
the past, it is unlikely that receivers were under-reporting their desire for feedback due to social
desirability concerns.

Experiment 3: Feedback for Close Others

Experiment 3 tests the extent of givers' underestimation of others' desire for feedback in a real feedback interaction between close others. Participants participated in the Zoom laboratory experiment with a partner who was a friend, roommate, or romantic partner. Feedback-givers generated real feedback that they wanted to share with their partner. Then, all participants

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predicted how they would feel giving or receiving feedback in a pre-survey, and, after the feedback interaction, they reported how giving or receiving the feedback actually felt.

By collecting reports both before and after the feedback interaction, Experiment 3 allows us to test if givers' and receivers' predictions about their experiences differ from what they actually experience. As in previous studies, we test whether the giver-receiver gap is mediated by givers' considerations about themselves, or givers' considerations about the other person. With the post-survey, we are also able to test whether givers or receivers have different experiences than they anticipate having.

Method.

We preregistered our hypotheses and analyses at http://aspredicted.org/blind.php?x=a7cp3j.

Participants. Participants signed up for the study in pairs. In order to participate, participants in each pair had to be friends, roommates, or romantic partners. We planned to recruit 100 participants, aiming for 50 in each experimental condition to have sufficient statistical power to detect a medium effect size. In total, 100 students (50 pairs) from a west coast university ($M_{Age} = 21.09$, SD = 4.19; 60% female) agreed to participate in an online Zoom experiment in exchange for a \$10 electronic gift card.

Design. The experiment design was two conditions (Feedback-Giver vs. Feedback-Receiver) between-participants.

Procedure. The experimenter randomly assigned one of the participants in each pair to be the giver and the other to be the receiver. Participants were given their instructions separately in a private Zoom chat message.

Givers' instructions: "Please brainstorm something that you would like to give your partner constructive feedback on (ideally something you haven't discussed before). As

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the next step in this study, you are going to give your partner this feedback. You will have up to 10 minutes to have a conversation about the feedback you provide. The feedback should be constructive. Constructive feedback is telling someone something specific and actionable that he or she could change, with that person's well-being in mind. For example: 'You may not realize that sometimes you are texting other people while we're hanging out, and others can see it and feel like you're not prioritizing them. So maybe you could do that less.'"

Givers then provided the experimenter with a 2-3-word phrase to explain the topic of their feedback (e.g., from the example earlier, it could be "texting too much").

Receiver's instructions: "In the next step of this study, your partner is going to give you constructive feedback on [Feedback-Givers' 2-3-word phrase explaining the feedback topic]. You will have up to 10 minutes to have a conversation about the feedback they provide."

After receiving these instructions, participants completed the *pre-survey*. Next, the givers gave their feedback to the receivers, and the pair had up to 10 minutes to discuss the feedback (see Table 3 for examples of feedback given). Finally, both participants completed the *post-survey*.

 Table 3

 Representative Examples of Feedback Given by Feedback-Givers to Feedback-Receivers

Examples

Taking too long to get ready
Being too private
Putting away laundry
Being more open minded
Being more present
Working less
Following through with plans
Being on their phone too much
Driving a recklessly
Lack of focus
Not exercising enough
Taking too long to get ready
Going to bed earlier
Better time management skills

Materials (Surveys).

Manipulation check. To make sure the two participants in each pair knew each other, we asked, "How close are you to the other person?" $(1 = not \ close \ at \ all, 7 = extremely \ close)$ and, "How well do you know the other person?" $(1 = not \ well \ at \ all, 7 = extremely \ well)$.

Pre-survey. We first asked participants to report their desire to give (in the giver condition) or receive (in the receiver condition) feedback with a dichotomous measure: "If you had a choice to give [get] feedback or not, what would you pick?" (**Prefer to give [get] feedback**; **Prefer not to give [get] feedback**). Then, givers predicted [and receivers reported] the receivers' desire for feedback with the following item: "How much do you think the other person wants to get feedback from you? [How much do you want to get feedback from the other person]?" (0 = not at all, 10 = very much). Givers also reported [and receivers predicted] their desire to give feedback: "How much do you want to give feedback to the other person? [How much do you think the other person wants to give feedback to you?]" (0 = not at all, 10 = very much).

To measure potential reasons for the hypothesized underestimation of the desire for feedback, we asked the same items described in Experiment 1 and Experiment 2 about considerations about the self (anticipated discomfort providing feedback, $\alpha = .87$, and expectations about relationship harm, $\alpha = .75$) and considerations about the receiver (beliefs about receivers' discomfort upon getting feedback, $\alpha = .87$, and receivers' value for the feedback, $\alpha = .78$).

Post-survey. Using the same items in the pre-survey (but modified to reflect that the feedback interaction had already happened), participants again answered questions about considerations about the self (anticipated discomfort providing feedback, $\alpha = .89$, and

expectations about relationship harm, $\alpha = .80$) and considerations about the receiver (beliefs about receivers' discomfort upon getting feedback, $\alpha = .90$, and receivers' value for the feedback, $\alpha = .92$).

Results

Manipulation check. Supporting our recruitment efforts, participants indicated that they knew each other well (M = 6.11 out of 7, SD = 1.31) and that they were close to each other (M = 6.21 out of 7, SD = 1.20).

Desire to give and receive feedback. Replicating our results from prior experiments and supporting our primary hypothesis (H1), givers believed that receivers wanted to be told less (M = 5.18, SD = 2.20) than receivers reported wanting to be told feedback (M = 6.98, SD = 2.08), paired t(49) = -4.23, p < .001, d = .84, thereby underestimating receivers' desire for feedback.

We also asked givers and receivers a binary choice question: if they had a choice to give/receive feedback or not, what they would choose? Receivers overwhelmingly (86%) chose to receive feedback, whereas significantly fewer givers (48%) chose to give feedback, $\chi^2(1, N = 100) = 11.97$, p < .001.

Potential mechanisms: Considerations about own experience and receivers' experience. To test which of givers' experiences or predictions are most closely aligned with their beliefs about receivers' desire for feedback, we conducted a regression model with givers' predictions about receivers' desire for feedback as the outcome variable, and givers' beliefs about their anticipated discomfort, receivers' discomfort, the potential for relationship harm, and the value of the feedback to the receiver as predictor variables. Results demonstrated that givers' beliefs about receivers' value for the feedback was a significant predictor of givers' predictions about receivers' desire for feedback (b = .73, p < .001) as was givers' predictions of their own

discomfort (b = -.40, p < .01), providing support for hypotheses 5a and 2. We did not find support for hypotheses 4a and 3 as givers' beliefs about receiver discomfort and relationship harm were not significant predictors.

We further tested for other giver/receiver discrepancies in predicted receiver experiences (testing hypotheses 4b and 5b). There was no difference between givers' and receivers' estimations of how uncomfortable receiving feedback would be for receivers, in either the presurvey (p = .42) or the post survey (p = .40). However, givers underestimated (M = 5.83, SD = 1.65) how much the receivers would value receiving feedback in the pre-survey (M = 7.09, SD = 1.63), paired t(49) = -4.64, p < .001, d = -0.77, and also in the post-survey (givers: M = 5.45, SD = 1.93; receivers: M = 6.61, SD = 2.58), paired t(49) = -3.18, p = .003, d = -0.51. Indeed, there was no shift in givers' predicted value before and after giving feedback, p = .16, and receivers found the feedback to be non-significantly but directionally more valuable than they expected, paired t(49) = 1.72, p = .09, d = 0.22.

To test hypothesis 5c, we tested whether givers' underestimation of receiver value significantly mediated their underestimation of receivers' desire for the feedback. In a bootstrap mediation model (10,000 iterations) that included role condition as the independent variable, predictions and reports of receiver value as a potential mediator, and desire for feedback as the dependent variable, a significant indirect effect emerged for receiver value (*indirect effect* = .60, 95% CI [.23, .99], p < .001). Thus, we found support for hypothesis 5c.

Discussion

In a laboratory experiment involving real and consequential feedback, with participants recruited in pairs who knew each other well, we demonstrate our hypothesized effect: givers again underestimated receivers' desire for feedback. Importantly, the effect size in this

experiment which tested a real feedback situation (d = -0.84) was even larger than in Experiment 1 which tested hypothetical scenarios (d = -0.49) and in Experiment 2 which tested recalled feedback (d = -0.30), suggesting that our online studies were conservative tests of our hypotheses.

Experiment 3 also provides evidence that givers' estimations about receiver desire for feedback are predicted by givers' beliefs about receivers' value for the feedback and givers' predictions of their own discomfort. Notably, givers' underestimation of receivers' value of feedback also mediated their underestimation of receivers' desire for feedback. We did not replicate the finding from Experiments 1 and 2 that relationship harm predicts givers' estimations of receiver desire for feedback, nor did we find evidence that givers' overestimation of receiver discomfort mediates the feedback gap. One possible explanation for these null results is that pairs were very close to one another, and thus may have been less concerned with relational harm and more knowledgeable about each other's discomfort levels.

One useful aspect of Experiment 3 is that participants were surveyed before and after the feedback interaction. Receivers' estimations of how much discomfort they would feel and how much they would value the feedback did not change meaningfully from before to after the interaction, suggesting their expectations were aligned with reality. Givers, however, underestimated how much receivers valued the feedback both before the interaction as well as after the interaction, suggesting that givers do not correct their misprediction over the course of the interaction.

Experiment 4: Making Givers Recognize Receivers' Desire for Feedback

The purpose of Experiment 4 was to test potential interventions to help reduce givers' underestimation of receivers' desire for feedback demonstrated in Experiments 1-3. We first

sought to replicate our primary hypothesis (H1) that receivers' reports of their desire for feedback are higher than givers' predictions when givers do not receive an intervention ("control" givers). Then, we tested two potential interventions. First, we tested an intervention designed to reduce giver discomfort, testing the possibility that givers underestimate receivers' desire for feedback because they focus too much on their own discomfort. In this "low discomfort" condition, we asked givers to imagine that *someone else* gave the feedback, removing givers from the situation. Second, we tested a perspective-taking intervention designed to enhance focus on receivers' experiences, testing the possibility that givers underestimate receivers' desire for feedback because they consider enough how receivers will be impacted by their feedback. In this "perspective-taking" condition, we asked givers to simulate what it would be like to receive feedback themselves before they estimated how much receivers wanted the feedback.

We hypothesize that both of our interventions will lead givers to be more accurate in assessing receivers' desire for feedback (according to receivers' own reports). We explore whether low-discomfort or perspective-taking givers are more accurate in estimating receivers' desire for feedback to test which mechanism better explains the giver-receiver gap: givers thinking too much about their own experiences (specifically, their own discomfort) or not enough about receivers' experiences (specifically, how valuable the feedback will be for the receiver). We do not test considerations about relationship harm in this experiment because those considerations are irrelevant in the low-discomfort intervention, in which we asked participants to imagine that someone else gave the feedback.

Method

We preregistered our hypotheses and analyses at:

https://aspredicted.org/blind.php?x=c3ut5z.

Participants. We planned to recruit 600 participants, aiming for 150 participants in each experimental condition to have sufficient statistical power to detect a medium effect size. In total, 600 adults from Prolific Academic ($M_{age} = 34.06$ years, SD = 13.33, 47% female) agreed to participate in a study in exchange for \$1.70.

Design. We randomly assigned participants to one of four conditions: one Feedback-Receiver condition and three Feedback-Giver conditions (Control, Perspective-Taking, and Low-Discomfort conditions). The givers in the control condition and the receivers were given the same instructions as in Experiment 2, whereas the givers in the perspective-taking and low-discomfort conditions received new instructions described below. Receivers recalled a time when they did something important incorrectly or poorly without realizing it. Givers in all three giver conditions recalled a time when they observed someone else experiencing this kind of situation. Unlike in Experiment 2, all receivers and givers were instructed to recall a time when no one told them about the situation or when they did not tell the other person about the situation, respectively. Givers in the perspective-taking condition were additionally asked to complete a perspective-taking exercise, and givers in the low-discomfort condition were asked to imagine that somebody else in the situation gave feedback (details below).

Procedure. Participants in the giver [receiver] conditions read the following:

For this study, please recall a time when you witnessed someone do [you did] something important incorrectly or poorly, without realizing it. It must be a time when it was possible for you to let the person know [someone to let you know] that they [you] were doing something incorrectly, but you did not tell them [no one told you]. The situation must have occurred without that person's [your] knowledge at the beginning, even if they [you] later realized what they [you] had done wrong. For example, the following situations would satisfy these criteria: Someone was [you were] speaking too quickly during a work presentation without realizing it; Someone [you] interrupted a client several times during a meeting without realizing it; Someone's [your] questions at work were sounding aggressive without them [you] meaning it; Someone [you] sounded rude in their [your] emails without realizing it; Someone was [you were] making repeated

errors or typos at work without realizing it. Please take a minute to recall a time when something like this happened.

Participants wrote a few sentences describing the situations they remembered. To ensure that participants followed our instructions, givers [receivers] reported, "In this situation, was it possible for you [someone] to let the person [you] know that they [you] were doing something incorrectly or poorly" (Yes / No), and, "In this situation, did you [someone] let the person [you] know that they [you] were doing something incorrectly or poorly?" (Yes / No). Participants who answered "No" to the first question or "Yes" to the second were asked to generate a new situation, and they were asked the same question after writing the second situation. If their answers again indicated that they did not follow instructions, they were excluded from the analysis. 39 participants were excluded from our analysis due to not following instructions, and the total number of participants included in our analysis was 561.

Then, givers in the perspective-taking condition completed a perspective-taking exercise with the following instructions:

Now, please imagine that you were in the situation that you just described. So, instead of you noticing someone else doing something wrong without realizing it, it was actually you doing the same thing wrong without realizing it. Please take a minute to imagine how you would feel if it were you in this situation. Write down everything that crosses your mind.

They completed the following prompt, "If I were in this situation, I would feel..." (free-response). Before answering the main dependent variables, they were also asked to answer the following questions about how they would feel if they were in the situation: "If you were in the situation, how much do you think you would have wanted someone to tell you about the situation?" (0 = I would definitely not want to be told, 10 = I would definitely want to be told); "If you were in the situation, how valuable do you think it would have been for you to know about the situation?" (0 = not at all valuable, 10 = very valuable); "If you were in the situation, how

much do you think that knowing about the situation would have helped you?" $(0 = not \ at \ all \ helpful, 10 = very \ helpful)$; and "If you were in the situation, how grateful do you think you would have been that someone told you about the situation?" $(0 = not \ at \ all \ grateful, 10 = very \ grateful)$.

Meanwhile, givers in the low-discomfort condition were asked to imagine that someone else let the other person know about the situation. Specifically, they read the following instructions:

Let's refer to the person who was doing something incorrectly or poorly as "Person A". Now, please imagine that someone else ("Person B") told Person A that they were doing something incorrectly or poorly. Person B decided to give Person A feedback because they realized Person A was unaware of what they were doing. Person B knows Person A just as well as you do. You are not the person that gives feedback about the situation - you are not involved in the conversation. However, you know that Person B gave Person A feedback because Person B told you. You are not in the room when Person B gives Person A feedback.

Then, participants completed the dependent variables while imagining this situation in which "Person B" gave "Person A" feedback.

Survey. We used the same questions from Experiments 1-3 to measure desire for feedback for participants in the control giver and receiver conditions. Givers and receivers were asked to answer these questions after imagining that they told the other person or that someone told them about the situation, respectively. The questions were slightly modified for the perspective-taking and low-discomfort giver conditions⁷. Using the same items as Experiments 1-3, participants again answered questions about considerations about the self (anticipated discomfort providing feedback, $\alpha = .89$) and considerations about the receiver (beliefs about

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⁷ In the perspective-taking condition, participants imagined that they told the other person. They completed the main dependent variable and mechanism questions after a reminder to remember how they would feel if they were in the situation. In the Low Discomfort condition, participants completed the main dependent variable and mechanism questions while continuing to imagine that someone else ("Person B") told the person ("Person A") about the situation. They reported their own discomfort, despite imagining someone else giving the feedback.

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receivers' discomfort upon getting feedback, α = .90, and receivers' value for the feedback, α = .83).

Manipulation checks. After reporting the main dependent variable of desire for feedback, participants from all three giver conditions completed two manipulation checks. To assess whether givers in the perspective-taking condition engaged in more perspective-taking, we asked them, "While you were just predicting how much the other person wanted to be told, to what extent did you imagine how you would feel if you were in the other person's position?" (0 = Ididn't try to imagine how I would feel in their position, 10 = I very much tried to imagine how I would feel in their position). To assess whether givers in the low-discomfort condition focused less on their own discomfort, we asked them, "While you were just predicting how much the other person wanted to be told, to what extent did you think that knowing Person B told Person A about the situation (while you were not there) would be an uncomfortable experience for you?" (0 = It would not be uncomfortable at all, 10 = It would have been very uncomfortable forme). We asked givers in the perspective-taking and control conditions, "While you were just predicting how much the other person wanted to be told, to what extent did you think that telling the other person about the situation would be an uncomfortable experience for you?" (0= It would not be uncomfortable at all, 10 = It would have been very uncomfortable for me).

Control measures. Finally, at the end of the study, we asked givers in the control and perspective-taking conditions [and receivers] to rate the following three control measures: "For the situation you recalled, how negatively do you think it reflects on the person in the situation [you] (assuming that they [you] did not realize what they [you] did)?" ($0 = not \ negatively \ at \ all$, $10 = extremely \ negatively$); "To what extent was the feedback you imagined giving [receiving] constructive?" ($0 = not \ constructive \ at \ all$, $10 = extremely \ constructive$); and "To what extent

would the feedback you imagined giving [receiving] have helped the person's [your] outcomes?" $(0 = did \ not \ help \ at \ all, \ 10 = extremely \ helped)$. Givers in the low-discomfort condition rated the same three control measures with different wording to ask about "Person A" and "Person B".

Results

Manipulation checks. As intended, givers in the low-discomfort condition (M = 4.45, SD = 2.98) anticipated significantly less discomfort than givers in the control condition (M = 6.91, SD = 2.89) and givers in the perspective-taking condition (M = 6.31, SD = 2.83), t(281) = -7.05, p < .001, d = -.84 and t(286) = -5.46, p < .001, d = -.64, respectively. Further, givers in the perspective-taking condition reported that they engaged in more perspective-taking (M = 7.07, SD = 2.76) than givers in the control condition (M = 5.72 SD = 3.10), t(283) = 3.88, p < .001, d = .46, and directionally, albeit non-significantly, than givers in the low-discomfort condition (M = 6.73, SD = 2.88), t(286) = 1.03, p = .30, d = .12.

Desire to give and receive feedback. Replicating our results from prior experiments and supporting our primary hypothesis (H1), givers in the control condition believed that receivers wanted to be told less (M = 4.21, SD = 3.08) than receivers reported wanting to be told (M = 7.80, SD = 2.75), t(271) = -10.13, p < .001, d = -1.23, thereby underestimating receivers' desire for feedback. Supporting our additional pre-registered hypotheses, givers in the two intervention conditions, the perspective-taking condition (M = 5.75, SD = 2.68) and the low-discomfort condition (M = 5.06, SD = 2.88), believed that receivers wanted to be told *more* compared to givers in the control condition (M = 4.21, SD = 3.08), t(283) = 4.50, p < .001, d = .53 and t(281)

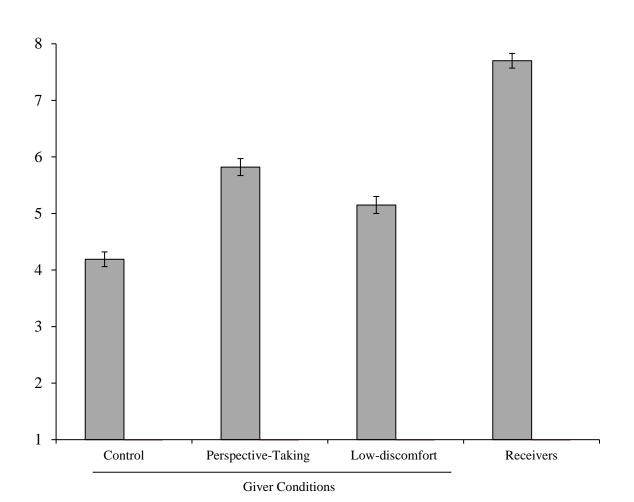
⁸ Givers in the control condition predicted non-significantly more discomfort than givers in the perspective-taking condition, t(283) = 1.77, p = .079, d = .21, suggesting that something about perspective-taking might make givers less focused on their own discomfort.

⁹ Givers in the low-discomfort condition reported more perspective-taking than givers in the control condition, t(281) = 2.83, p < .01, d = .34, suggesting that, by taking themselves out of the situation, the low-discomfort givers may have been better able to empathize with receivers' perspectives.

= 2.37, p < .018, d = .28 respectively. Despite the fact that givers in both intervention conditions were more accurate (i.e., closer to receivers' reports), givers in the low-discomfort and perspective-taking conditions still underestimated receivers' desire for feedback, t(274) = -8.10, p < .001, d = -.97, and t(276) = -6.30, p < .001, d = -.76, respectively. When comparing the two intervention conditions, we found that givers in the perspective-taking condition were more accurate in predicting receivers' desire for feedback (closer to receivers' actual reported desire for feedback) than givers in the low-discomfort condition, t(286) = 2.12, p = .035, d = .24 (see Figure 4).

Figure 4

Predicted and actual desire for constructive feedback in Experiment 4



Note. This figure shows receivers' actual desire for feedback compared to givers' beliefs about their desire for feedback in three conditions: the control condition, the perspective-taking condition, and the low-discomfort condition. Both the perspective-taking and low-discomfort conditions led to more accurate predictions of receiver desire for feedback, with perspective-taking producing the most accuracy. Error bars represent 95% confidence intervals.

Potential mechanisms: Considerations about own experience and receivers' experience. To test which of givers' experiences or predictions are most closely aligned with their beliefs about receivers' desire for feedback, we conducted a regression model with givers' predictions about receivers' desire for feedback as the outcome variable, and givers' beliefs about their anticipated discomfort, receivers' discomfort, the potential for relationship harm, and the value of the feedback to the receiver as predictor variables. ¹⁰ Results demonstrated that givers' beliefs about receivers' value for the feedback significantly predicted givers' predictions about receivers' desire for feedback (b = .75, p < .001), supporting hypothesis 5a. We did not find support for hypotheses 4a and 2 as givers' beliefs about receiver discomfort and givers' predictions of their own discomfort were not significant predictors (p's = .37 and .11, respectively).

We further tested for other giver/receiver discrepancies in predicted receiver experiences (testing hypotheses 4b and 5b). All three giver conditions overestimated how uncomfortable receiving feedback would be for receivers (p's < .004, d's > .39). However, there were no significant differences between the three giver conditions in predicting receiver discomfort (p's > .53). Turning to receiver value, all three giver conditions underestimated how much receivers (M

¹⁰ Note that we do not test Hypothesis 3 that givers' estimation of relationship harm will predict their estimation of receivers' desire for feedback. We did not collect predictions of relationship harm in this study because one of the intervention conditions asks givers to imagine someone else is giving feedback.

= 8.22, SD = 1.85) would value receiving feedback (p's < .001, d's < -.76). When comparing giver conditions to each other, we find the same pattern as our main effect. Both givers in the perspective-taking condition (M = 6.80, SD = 1.88) and givers in the low-discomfort condition (M = 6.32, SD = 2.08) made predictions significantly closer to receivers' reports of value from feedback compared to the predictions of givers in the control condition (M = 5.68, SD = 2.38), t(283) = 4.42, p < .001, d = .51 and t(281) = 2.41, p = .016, d = .29, respectively. But the predictions of givers in the perspective-taking condition were more accurate (i.e., closer to receiver reports) than those of givers in the low-discomfort condition, t(286) = 2.06, p = .041, d = .24.

Mediation. To test hypotheses 4c and 5c, we tested whether givers' overestimation of receiver discomfort and underestimation of receiver value significantly mediated their underestimation of receivers' desire for the feedback. We tested three bootstrap simultaneous mediation models (10,000 iterations) that included condition (either: 1- Control Giver vs. Receiver, 2- Perspective-taking Giver vs. Receiver, or 3- Low-discomfort Giver vs. Receiver) as the independent variable, predictions and reports of receiver value and receiver discomfort as two mediators, and desire for feedback as the dependent variable. For givers in the control condition vs. receivers, a significant indirect effect emerged for receiver value (b[indirect]= 2.03, z = 7.87, p < .001) and receiver discomfort (b[indirect]= 0.16, z = 2.17, p = .030) as mediators. For givers in the perspective-taking condition vs. receivers, a significant indirect effect emerged for receiver value (b[indirect]= 1.21, z = 5.46, p < .001) but the indirect effect for receiver discomfort did not reach statistical significance (b[indirect]= 0.11, z = 1.89, p = .058). Lastly, for givers in the low-discomfort condition vs. receivers, a significant indirect effect emerged for receiver value (b[indirect]= 1.51, z = 6.52, p < .001) and for receiver discomfort

(b[indirect]= 0.14, z = 2.12, p = .034) as mediators. In all three models, the discrepancy between predicted and actual receiver value was a much stronger mediator than the discrepancy between predicted and actual receiver discomfort. Thus we found support for both hypotheses 4c and 5c, but we found stronger support for hypothesis 5c (replicating the pattern of findings in Experiment 1).

Control variables. Finally, we examined whether our control variables affected wanting to give or receive feedback. Controlling for how negatively the situation reflected on the target person, how constructive they expected the feedback to be, and how helpful the feedback would be to the target person's outcomes, the effect of giver/receiver condition on the desire for feedback remained, b's < -1.56, p's < .001. Moreover, each of the three control variables moderated the effect of condition; givers' underestimation of receivers' desire for feedback increased when givers felt the interaction reflected badly on the receiver (b = .27, p = .020), and decreased when givers believed their feedback was more constructive (b = -.34, p = .022) or more helpful to the receiver (b = -.33, p = .013).

Discussion

Experiment 4 provides further evidence that givers underestimate how much receivers want to receive constructive feedback. Moreover, Experiment 4 develops and tests two possible interventions to reduce this underestimation. One intervention asked participants to briefly take the perspective of the receiver before predicting receiver desire for feedback, testing whether enhancing givers' consideration of the receiver's experience can make givers more accurate about receivers' desire for feedback. A second intervention asked givers to imagine someone else giving the receiver feedback before predicting receiver desire for feedback, testing whether reducing givers' consideration of their own experience (e.g., their expected discomfort) can

make givers more accurate about receivers' desire for feedback. We found that both interventions led to more accurate predictions of receiver desire for feedback, suggesting that the underestimation of desire for feedback is multiply determined. However, the predictions of perspective-taking givers were significantly more accurate than those of the low-discomfort givers, suggesting that givers' inaccuracy may be due more to not attending enough to receivers' experience than attending too much to their own experience.

Experiment 5: Getting Feedback in a Public Speaking Competition

In Experiment 5, givers provided live and immediately consequential feedback to receivers in a financially-incentivized public speaking competition. Our goal was to explore whether givers' underestimation of receivers' desire for feedback had behavioral consequences, such as reducing the amount of feedback that receivers actually receive, with potential consequences for receivers' public-speaking performance and financial pay-offs. We chose a public speaking task because we suspected feedback could be useful in this context, and we incentivized the winners of the competition with a \$50 gift card in order to make the feedback more potentially consequential and to make speakers try harder.

As in Experiments 1-4, we tested whether givers would underestimate how much receivers want to receive feedback and whether this gap would be mediated by givers' considerations about their own experiences (i.e., their own discomfort and anticipated harm to the relationship) and their considerations about the receivers' experiences (i.e., the value of the feedback to the receivers, and receivers' discomfort). Independent raters blind to hypothesis coded the extent to which the feedback was constructive, and gave a performance score on the practice speech and the final speech. To examine the correspondence between performance improvement and constructive feedback, we calculated how much each participant improved

from their practice to their final speech and whether this improvement correlated with the amount of constructive feedback they received.

Another goal of this study was to compare predictions about desire for feedback with actual experiences of giving and receiving feedback. To this end, we surveyed participants at three time points: once after receiving their assignment to give or receive the feedback (first presurvey), once after the practice speech but before any feedback was given or received (second pre-survey), and once after the feedback was given and the final speech was recorded (postsurvey). Our primary analyses were conducted on the pre-survey responses, as these best reflect a priori expectations about feedback experiences. However, the other two surveys allowed us to test two additional research questions. First, does proximity to the time at which feedback will be given or received influence the desire for (giving or receiving) feedback? It is possible, for instance, that givers become less interested in giving feedback as the moment to do so approaches, or that receivers become more interested in getting feedback over time. Second, do givers' and receivers' predictions about their feedback experiences deviate from what they actually experience? The results from Experiment 3 suggested that receivers' predictions are well-aligned with reality, given that their estimations of desire for feedback, discomfort, and value for feedback did not change meaningfully from before to after the feedback interaction, but we examine this question again in Experiment 5 for the sake of thoroughness.

Method.

We preregistered our hypotheses and analyses at:

https://aspredicted.org/blind.php?x=3hs5wu.

Participants. We planned to recruit 200 participants, aiming for 100 in each experimental condition to have sufficient statistical power to detect a medium effect size. In

total, 204 students from a west coast university ($M_{Age} = 21.6$, SD = 4.16; 70% female) agreed to participate in an in-person laboratory experiment in exchange for \$10.

Design. The experiment design was two conditions (Feedback-Giver vs. Feedback-Receiver) between-participants.

Procedure. Participants were recruited to the lab in pairs. The experimenter explained to both participants that one of them would be assigned to give a speech (receiver), and the other would be assigned to give feedback on the speech to the speaker (giver). The participants were told that the receiver would make a practice speech, then the giver would give the receiver feedback on their practice speech, and then the receiver would make a final speech that would be "evaluated and scored by members of the research team." They were told that both the practice speech and the final speech would be video-recorded. They were also informed of a financial incentive for performing well on the final speech by the experimenter, who said: "The person with the highest final speech score at the end of the study will be emailed an electronic Amazon gift card for \$50." The experimenter additionally showed both participants a five-item rubric with categories for evaluating their speech. For details on how performance was measured and how feedback was coded by the research team, see the section on performance and feedback coding below.

Before participants learned which of them was assigned to be the giver and which the receiver, both participants were instructed to spend ten minutes separately writing a three-minute speech about how to succeed in college. After both participants drafted a speech, they received their role assignments to be either the receiver or the giver. The receiver learned that they would have five minutes to make a practice video-recording of their speech, and during this time the giver would listen to the practice speech and take detailed notes using a feedback guide (see

Supplemental Materials) which included five categories: 1. Verbal disfluencies (e.g., "um", "ah"); 2. Eye contact and facial expressions; 3. Hand motions, body language, and gesturing; 4. Demeanor and attitude (confidence); and 5. Rate of speaking and breathing. We included this feedback guide to ensure there would be an adequate amount of feedback provided by the giver to the receiver, and also to standardize the type of feedback provided. The experimenter told givers that their job was to provide feedback to their partner to make their speech better, and that if the receiver won the speech competition, they would both receive an additional \$25 (see Supplemental Materials for full instructions).

After receiving these instructions, participants completed the *first pre-survey*. Next, the receivers completed their practice speech (video-recorded) on which givers took notes based on the feedback guide. Prior to receiving or giving feedback, participants completed the *second pre-survey* to test whether participants' preferences would change just before the feedback. After completing the second survey, givers provided receivers with feedback in each of the five categories in the feedback guide. We audio-recorded the feedback so that we could code how much and what type of feedback the giver provided. The receivers then gave their final speech on video-tape. Lastly, both participants completed the final *post-survey*.

Materials (Surveys).

First pre-survey. To test our primary hypothesis, we asked participants to report receivers' desire for feedback: "How much do you think the other person wants to get feedback from you?" (givers), or, "How much do you want to get feedback from the other person?" (receivers; $1 = not \ at \ all$, $10 = very \ much$). 11

¹¹ Note that unlike in Experiments 1-4, Experiment 5 used Likert scale responses on a 1 to 10 scale instead of a 0 to 10 scale. Experiment 5 was run before the other studies and later studies used the 0 to 10 scale to ensure there would be a scale midpoint.

Unlike in prior experiments, we further explored beliefs about the desire to give feedback, asking givers to report [and receivers to predict] givers' desire to give feedback: "How much do you want to give feedback to the other person? [How much do you think the other person wants to give feedback to you?]" $(0 = not \ at \ all, 10 = very \ much)$. The analysis of these items can be found in the Supplemental Materials.

To measure potential reasons for givers' underestimation of receivers' desire for feedback, we asked items similar to those described in Experiments 1-4 about considerations about the self (anticipated discomfort providing feedback, $\alpha = .87$, and expectations about relationship harm, $\alpha = .50$) and considerations about the receiver (beliefs about receivers' discomfort upon getting feedback, $\alpha = .84$, and receivers' value for the feedback, $\alpha = .92$). For the exact text of each question, see the Supplemental Materials.

We asked three exploratory questions to receivers [givers]. First, to understand overall preferences for giving or getting feedback, we asked a binary choice question: "If you had a choice to get [give] feedback on your speech or not, what would you pick?" (*Prefer not to get [give] feedback*; *Prefer to get [give] feedback*). Second, to examine accuracy in assessing the value of feedback, we asked participants to predict how much receiving feedback would improve the receiver's speech score. And third, to better understand how much receivers wanted different types of feedback, we asked participants to indicate which of the categories they wanted to give/receive feedback on. Because these items were exploratory and not preregistered, more details and analyses on them can be found only in the Supplemental Materials.

Second pre-survey. Using the same items as the first pre-survey, we again collected participants' predicted and actual desire for giving and receiving feedback. We asked receivers

an additional exploratory question about which categories they would like feedback on, which we report in the Supplemental Materials.

Post-survey. Participants again predicted or reported their considerations about the giver's experience (anticipated discomfort providing feedback, $\alpha = .86$, and expectations about relationship harm, $\alpha = .76$) and considerations about the receiver's experience (receivers' discomfort upon getting feedback, $\alpha = .86$, receivers' value for the feedback, $\alpha = .89$), albeit written in past-tense. We did not ask participants about the desire for feedback after the feedback was given.

We asked several additional exploratory questions to receivers and givers. First, to examine accuracy in assessing the value of feedback, we asked participants to predict how much receiving feedback would improve the receiver's speech score. Second, to better understand how much receivers wanted different types of feedback, we asked participants to indicate which of the categories they wanted to give/receive feedback on. Finally, to measure the impact of feedback, we asked receivers how receptive they were to feedback, and how likely they would be to implement the feedback. Because these items were exploratory and not preregistered, more details and analyses on them are reported in the Supplemental Materials.

Performance and feedback coding. We preregistered our performance coding hypotheses and analyses separately at http://aspredicted.org/blind.php?x=x3ei58. To evaluate receivers' speech performance, we asked three independent raters blind to hypothesis to evaluate all of the usable practice and final speeches, using video recordings of the speeches ($\alpha = 0.70$). Due to technical difficulties, not all speeches were properly recorded; in total, 88 pairs of videos

¹² We did not ask participants to predict their partners' discomfort in the post-survey. Thus, givers answered questions about their own experienced discomfort, but were not asked to estimate receivers' discomfort. Similarly, receivers answered questions about their own discomfort, but were not asked to estimate givers' discomfort.

were coded (86.2% of pairs). Raters did not know which videos were practice speeches and which were final speeches; they evaluated all speeches in randomized order. They were told to evaluate the speech's overall quality on a scale from 1 (*very low quality*) to 10 (*very high quality*) ($\alpha = .73$).

To code the feedback that givers provided we counted the total number of pieces of feedback given in each pair and asked three independent coders to classify each piece of feedback along two dimensions. Firstly, they coded feedback as positive, negative, or neutral. Positive feedback was defined as feedback that focused on things that were done well. Negative feedback was defined as feedback that focused on things that were done poorly. Feedback was categorized as neutral when the giver pointed something out without indicating whether it was good or bad. (Note that the coding category of "neutral" was added after we preregistered the coding analysis and is therefore not included in our preregistration). Secondly, the three independent coders also classified each piece of feedback according to whether it was constructive or not. Constructive feedback was defined as feedback that specifically addressed something that the participating should do to improve (whereas non-constructive feedback addressed no concrete areas for improvement). We averaged the three independent coders' scores (α for total feedback combined: $\alpha = .96$; α 's > 0.52 for the feedback type classifications).

Table 4Examples of Feedback from Each Feedback Category

Feedback type	Positive	Negative	Neutral	Constructive
Descriptive statistics	M = 5.50 $SD = 2.47$	M = 3.88 $SD = 1.80$	M = 0.91 $SD = 0.89$	M = 3.73 $SD = 2.40$
Example quotation	Your demeanor was good. You seemed confident, especially	I noticed that you used the word "like" a lot when it was not needed.	I feel like everyone can just use more hand motions in general	I would suggest you try to slow down during your

considering you just	speech, and work
wrote the speech.	on your pacing.

Results

Desire to receive feedback. Replicating our results from prior experiments, and supporting our primary hypothesis (H1), givers (M = 5.24, SD = 2.11) underestimated receivers' (M = 7.25, SD = 2.33) desire for receiving feedback in the first pre-survey, t(202) = -6.48, p < 0.00.001, d = -0.90. Givers also underestimated receivers' desire for feedback in the second presurvey ($M_{giv} = 6.67$, SD = 2.13; $M_{rec} = 7.68$, SD = 2.33), t(202) = -3.24, p = .001, d = -0.45, although the effect was significantly smaller in the second pre-survey; a regression with desire for feedback as the dependent variable and the interaction between condition and first vs. second survey as a predictor variable showed a statistically significant interaction effect, b = 1.01, p =.023. Receivers' desire to get feedback actually increased from the first to second pre-survey, paired t(101) = 2.76, p = .007, d = 0.28, suggesting that hypothetical predictions are conservative estimates of actual desire for feedback, and that they wanted the feedback more as it loomed closer. Givers' predictions of receivers' desire for feedback also increased from the first to second pre-survey, paired t(101) = 6.84, p < .001, d = 0.68. We did not ask participants about the desire for feedback after the feedback was given (in the post-survey), only during the first and second pre-surveys.

Potential mechanisms: Considerations about own experience and receivers' experience. To test which of givers' experiences or predictions are most closely aligned with their beliefs about receivers' desire for feedback, we conducted a regression model with givers' predictions about receivers' desire for feedback as the outcome variable, and givers' beliefs about their anticipated discomfort, receivers' discomfort, the potential for relationship harm, and

the value of the feedback to the receiver as predictor variables (all from the first pre-survey). Results demonstrated that givers' beliefs about receivers' value for the feedback significantly predicted givers' estimations of receivers' desire for feedback (b = .58, p < .001), as did givers' predictions of their own discomfort (b = -.29, p < .01), providing support for hypotheses 5a and 2. However, givers' predictions about relationship harm did not significantly predict their estimations of receivers' desire for feedback (hypothesis 3a; b = -.30, p = .064), nor did givers' beliefs about receiver discomfort (hypothesis 4a; p = .39).

We further tested for other giver/receiver discrepancies in predicted receiver experiences (testing hypotheses 4b and 5b). As in Experiments 1-4, givers underestimated the value of feedback to receivers in the first pre-survey (M = 6.63, SD = 1.71), compared to receivers' own predicted value (M = 7.24, SD = 2.08), t(202) = -2.28, p = .024, d = -0.32. They additionally underestimated the value of their feedback even after the competition was over (M = 6.66, SD = 1.76), compared to receivers' perceived value (M = 7.55, SD = 1.87), t(202) = -3.49, p = .001, d = -0.49. Indeed, there was no shift in givers' predicted value after the competition compared to before the competition, p = .877, but receivers believed they had received even more value after the competition compared to what they predicted before it, $paired\ t(101) = 2.06$, p = .042, d = 0.21.

In terms of receiver discomfort, givers overestimated receiver discomfort in the first presurvey (M = 5.34, SD = 1.93) compared to receivers' own predicted discomfort (M = 4.54, SD = 2.10), t(202) = 2.85, p = .005, d = 0.40. Both givers and receivers reported feeling less discomfort than they had predicted, *paired* t(101) = -2.79, p = .006, d = -0.28, and *paired* t(101) = -12.30, p < .001, d = -1.22, respectively. We did not ask givers to predict receiver discomfort

in the post-survey so we could not evaluate whether givers overestimated receiver discomfort in the post-survey.

To test hypotheses 4c and 5c, we tested whether givers' underestimation of receiver value and overestimation of receiver discomfort in the pre-survey significantly mediated their underestimation of receivers' desire for the feedback. In a bootstrap mediation model (10,000 iterations) that included role condition as the independent variable, predictions of receiver value and receiver discomfort (from the first pre-survey) as potential mediators, and desire for feedback (from the first pre-survey) as the dependent variable, a significant indirect effect emerged for receiver value ($indirect\ effect = -.43$, 95% CI [-.79, -.06], p = .025) and receiver discomfort ($indirect\ effect = -.38$, 95% CI [-.74, -.16], p < .001). Thus, we found support for hypotheses 4c and 5c, and stronger support for receiver value (hypothesis 5c), replicating the pattern found in Experiments 1, 2, and 4.

How did feedback influence performance? Table 5 shows the correlations between each type of feedback provided (positive, negative, neutral, constructive, and total count), the practice speech scores, the final speech scores, and the improvement from practice to final speeches (percentage improvement score, calculated by taking the difference between the practice speech score and final speech score and dividing it by the practice speech score). We report correlations with the percentage of positive, negative, neutral, and constructive feedback provided (instead of count data reported in Table 5) in the Supplemental Materials; results are similar.

Table 5Correlations Between Types of Feedback, Practice Speech Scores, Final Speech Scores, and Performance Improvement Scores

Feedback type Positive Negative Neutral	Constructive Total Amount
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	M = 5.50, SD = 2.47	M = 3.88, SD = 1.80	M = 0.91, SD = 0.89	M = 3.73, SD = 2.40	M = 10.31, SD = 2.63
Practice speech scores	.283**	143	199^{\dagger}	220*	.097
Final speech scores	.317**	072	097	146	.214*
Percentage improvement from practice to final	084	.156	.297**	.234*	.130

Note. Each cell shows the Pearson's correlation between the two variables. Each column is the count of the number of unique pieces of positive, negative, neutral, and constructive feedback provided. Positive, negative, and neutral feedback sum to the total amount of feedback given. Significance is denoted by: $^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$, $^{**}p < .001$.

As depicted in Table 5, not surprisingly, better practice speeches received more positive feedback and less constructive feedback, p's < .05. More interestingly, the amount of positive and negative feedback was unrelated to how much participants improved their score, but the amount of constructive and neutral feedback was associated with greater performance improvements, p's < .05, consistent with the possibility that the extent to which the feedback was constructive could have improved performance.

Discussion

In a financially-incentivized laboratory experiment involving real and consequential feedback, givers again underestimated receivers' desire for feedback. Interestingly, as the time to receive feedback approached, receivers had more desire to get it, suggesting their preferences to get feedback are reliable or even grow stronger with time. Replicating the results in Experiments 1-4, in this experiment givers' underestimation of the value of feedback for receivers mediated their underestimation of receivers' desire for feedback. In addition, givers' overestimation of

receiver discomfort mediated their underestimation of receivers' desire for feedback (replicating the results in Experiments 1, 2, and 4). This pattern of results provides evidence that, at least in this context, the underestimation of desire for feedback was due primarily to misunderstanding the consequences of the feedback for receivers.

This experiment provides an opportunity to examine how giving feedback is associated with performance outcomes. We found that givers were responsive to the quality of their partner's practice speeches, giving more positive feedback for better speeches and more constructive feedback for worse speeches. Furthermore, the amount of constructive feedback received was associated with an improvement in receivers' outcomes: receivers who received more feedback from their partners had a higher percentage of score improvement between their practice and final speech scores. These effects should be interpreted with caution as they are only correlational, but they are consistent with the idea that constructive feedback has the potential to improve actual performance outcomes.

General Discussion

People often have opportunities to provide others with constructive feedback that could be immediately helpful. Whether letting someone know that he has a typo in the presentation he is about to give in front of potential clients, telling a job candidate that she has a stain on her blouse before an interview, or pointing out to a friend that she has spinach in her teeth, constructive feedback can help the focal individual to fix the problematic situation and avoid embarrassment. And yet, anecdotal evidence—and our pilot data—suggest that people often avoid giving constructive feedback in situations like these.

One reason why people may hesitate to provide constructive feedback is that they don't realize how much others want it. The five experiments in the current paper examine the

possibility that feedback-givers routinely underestimate others' desire for feedback and explicate the psychology behind this underestimation. Givers' underestimation of receivers' desire for feedback emerged among people just imagining being givers or receivers (Experiment 1), people recalling actual feedback experiences (Experiments 2 and 4), and people giving or receiving live feedback in the laboratory (Experiments 3 and 5). The underestimation persisted even when the giver knew the receiver well (Experiments 1 and 3).

We investigate two categories of reasons for why people underestimate the desire for feedback—people's beliefs about their own experience giving feedback, and their beliefs about the other person's experience receiving feedback. We find the most evidence that the reason why people don't recognize others' desire for feedback is that they misunderstand multiple aspects of the receiver's experience, specifically underestimating the value of the feedback for receivers and overestimating receivers' discomfort. We also find some evidence that givers' considerations about their own experience giving feedback predicts their estimations of receivers' desire for feedback. In Experiments 1, 3, and 5, givers' predictions of their own discomfort predicted their estimations of receiver desire for feedback, and in Experiments 1, 2, and 5, givers' predictions of relationship harm predicted their estimations of receiver desire for feedback.

Experiment 4 tested two interventions related to the aforementioned two mechanisms: in one, increasing the extent to which givers consider receivers' experiences by having them engage in a perspective-taking exercise and, in the other, decreasing the focus on givers' own experience by having them imagine that someone else gave feedback. We find evidence that both interventions lead to more accurate predictions of receivers' desire for feedback compared to a control condition, suggesting both considerations about the receiver's experience and considerations about their own experience contribute to givers' underestimations of receiver

desire for feedback. However, the perspective-taking intervention led to more accurate predictions, aligning with our mediation evidence that considerations about the receiver's experience are more important than givers' considerations about their own experience in explaining the underestimation of receivers' desire for feedback.

Not recognizing how much others want feedback is potentially problematic because people may be less likely to actually give the feedback the more they believe it is unwanted; for instance, in Experiment 2, the givers who most strongly underestimated the desire for feedback were least likely to have given feedback. Not providing constructive feedback can harm a potential receiver; in Experiment 5, people who received less constructive feedback also showed less improvement in a competitive speaking contest, reducing their chances of winning a financial prize. Thus, underestimating the desire for feedback might lead to suboptimal outcomes for would-be receivers.

The experiments in the current paper additionally provide precision around when givers most underestimate receivers' reported desire for feedback. In Experiment 1, we found that the underestimation was larger for issues that were more consequential (i.e., had more significant consequences for receivers, like making errors at work). In Experiment 2, we found that the underestimation was larger when givers believed the feedback might reflect more negatively on the receiver, and smaller when givers believed their feedback could be more useful to the receiver.

Theoretical Contributions

The present research makes at least three contributions to the literature. First, it identifies a circumstance in which one party mispredicts the experiences of another party, thus contributing to literature on self/other mispredictions, examples of which have been shown in the domains of

gratitude (Kumar & Epley, 2018), honesty (Levine & Cohen, 2018) and vulnerability (Bruk et al., 2018). This prior work has found that people sometimes fail to predict the extent to which others will appreciate their prosocial actions (e.g., expressing gratitude to them, showing honesty or vulnerability) and, as a result, engage in those actions less often than may be optimal for receivers' well-being. In each of these cases, the potential receiver may emotionally suffer from the lack of prosociality. Our findings further suggest that misunderstanding others' desire for feedback can affect potential feedback-givers' behavior, potentially making them less likely to provide constructive feedback.

Second, our work contributes to the existing literature in psychology, education, management, and other fields on feedback by increasing our understanding of the mismatch between receivers' desire for feedback and givers' lack of interest in providing feedback that has been previously documented. Our studies examine a possible reason for this mismatch, showing that givers consistently underestimate others' desire for constructive feedback—as well as its potential value and how much it may harm relationships. This may help to explain why managers and would-be feedback givers sometimes positively distort critical feedback (Antonioni, 1994), leading employees to think that the feedback they received was more positive than their manager reported intending to convey (Schaerer et al., 2018) and to conclude that the feedback lacks usefulness (Jampol & Zayas, 2016). Identifying the reasons for such phenomena is important because it points to avenues for encouraging people to provide constructive feedback to others. Focusing on the potential value that feedback could have to the other person, as well as reinforcing the likelihood that the relationship will not be harmed, could be interventions to increase feedback giving.

Lastly, the current findings speak to a larger conversation about the extent to which people's beliefs about others can be due to motivated processes (e.g., thinking someone does not want feedback because you don't want to give the feedback to them). Here, the consideration of one's own experience during feedback-giving may be seen as being a more motivated rationale for determining whether the other person wants feedback, because the potential feedback-giver may want to justify avoiding their own discomfort by believing that the receiver does not want feedback. In contrast, primarily thinking about the receiver's experience is a relatively more "cognitive" way to determine the desire for feedback, as it involves estimating how the other person feels. We provide evidence that the underestimation of desire for feedback is due to potentially both motivated and cognitive reasons, but the evidence was a bit stronger for givers misunderstanding the other person's experience (the more cognitive explanation). However, more deeply exploring cognitive and motivated reasons for the underestimation of receivers' desire for feedback may be a fruitful venue for future work.

Limitations and Directions for Future Research

Our research is qualified by several limitations that suggest avenues for future research. First, the current paper identifies several possible moderators of the difference between givers' predictions and receivers' reports of desired feedback including the consequentiality of the problem, the belief that the feedback could be seen as negative, and beliefs about how useful the feedback would be. But other moderators could exist. For example, one potential moderator to explore could be status differences between givers and receivers. It may be easier and more expected for a higher-status person to give feedback to a lower-status person. The higher-status person may not be as worried about affecting the relationship, given that the formal hierarchy permits evaluative feedback. Existing research shows that employees ask for more feedback

compared to managers and executives, supporting the suggestion that it is more normalized for employees to seek feedback and for managers to give it (Van der Rijt, Van den Bossche, & Segers, 2013). They may also better understand the value of the feedback to the lower-status person, having been in his or her position before.

Second, the intervention study (Experiment 4) suggests a possible way to intervene to make potential givers more likely to actually provide feedback. We find that nudging givers to consider the perspective of potential receivers by putting givers into the metaphorical "shoes" of receivers leads givers to be more accurate in predicting receivers' desire for feedback. Building perspective-taking nudges into experiences could increase the propensity for people to give constructive feedback. For example, an organization could add prompts to formal performance evaluation feedback forms ("Would you want feedback if you were this employee?") that may help to remind managers to give more constructive feedback.

The psychological mechanisms that we identify in the current paper also provide new ideas for interventions. Given that concerns around harming the relationship appear to be a barrier in providing feedback, perhaps making feedback anonymous or not having to give the feedback in person would make people more willing to provide feedback. Indeed, studies show people are more willing to give negative feedback when it is delivered anonymously (Antonioni, 1994; Croft & Schmader, 2012).

Third, another area for future research is better understanding how the experience of discomfort and embarrassment, both for the giver and receiver, can affect feedback dynamics.

All of the feedback opportunities studied in the current paper involved relatively high levels of discomfort, so more deliberately varying the level of discomfort could be instructive. The current studies showed varying results in how accurate givers and receivers were in recognizing each

other's level of discomfort (and predicting their own discomfort) during the feedback experience. Whereas in Experiments 1, 4, and 5, givers and receivers overestimated each other's level of discomfort, in Experiment 2, givers *underestimated* receivers' discomfort. These results suggest there may be some conditions under which givers do not recognize how uncomfortable their feedback is to receivers, and other circumstances under which they are overly attuned to receivers' discomfort. Future research can explore whether and how anticipating negative emotions of the receiver may affect willingness to give and receive constructive feedback.

Fourth, while we focus specifically on constructive feedback in the current paper, future research could examine other types of feedback (e.g., negative, positive) to see if people still tend to underestimate the desire for feedback even that is not constructive. On the one hand, the effect identified in the current paper may extend to all types of feedback. But alternatively, there may be specific types of feedback—such as negative and unconstructive feedback—that are desired *less* than people expect, rather than more like we find with constructive feedback.

Lastly, existing work shows that people are especially likely to withhold feedback from minorities out of fear of appearing overly negative or even biased. In one study supporting this possibility, participants were more likely to give negative feedback on a paper written by a White student compared to a minority student when externally motivated to not appear prejudiced (Croft & Schmader, 2012). As outlined in the Introduction, feedback is critical to improvement and advancement, and if feedback is especially withheld from minorities, this may limit their potential success. Thus, it is possible that our pervasive effect of underestimating others' desire for feedback, and consequent behavior withholding feedback, may be particularly harmful for minorities. Future research could examine whether people especially underestimate desire for feedback for minorities.

Conclusion

In sum, six studies examining behaviors and beliefs concerning feedback in a variety of situations show that people consistently underestimate others' desire for constructive feedback. This is due in part to people misunderstanding the consequences of giving feedback for themselves and the other person, especially underestimating the value of their feedback to the other person. Not recognizing others' desire for constructive feedback may lead people to provide less feedback, potentially hurting others' outcomes. The next time you hear someone mispronounce a word, see a stain on their shirt, or notice a typo on their slide, we urge you to point it out to them—they likely want the feedback more than you think.

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Supplemental Materials

Pilot Study Additional Methods

For prosocial orientation, we asked participants to rate how much the following statements describe them: "I care about benefiting others," "I want to help others," I want to have positive impact on others," and "It is important to me to do good for others" $(1 = not \ at \ all; 7 = a \ great \ deal)$. For other-orientation, we asked participants to rate the following statements: "I am concerned about the needs and interests of others such as my classmates/peers," "The goals and aspirations of my peers are important to me," and "I consider others' wishes and desires to be relevant" $(1 = not \ at \ all; 7 = a \ great \ deal)$. To measure conflict avoidance, we asked participants to rate the following statements: "I attempt to avoid being 'put on the spot' and try to keep my conflict with others to myself," "I generally avoid arguments," "I try to keep my disagreement with others to myself in order to avoid hard feelings," "I sometimes avoid taking positions which would create controversy," and "I try to do what is necessary to avoid useless tensions" $(1 = not \ at \ all; 7 = a \ great \ deal)$.

Also, we asked participants who gave feedback to predict: "How uncomfortable do you think that telling them about the situation would make them feel?" ($1 = not \ at \ all \ uncomfortable$, $10 = very \ uncomfortable$); "How embarrassed do you think that telling them about the situation would make them feel?" ($1 = not \ at \ all \ embarrassed$, $10 = very \ embarrassed$); "How valuable do you think it was for the person to know about the situation?" ($1 = not \ at \ all \ valuable$, $10 = very \ valuable$); "How much do you think that knowing about the situation would help the person?" ($1 = not \ at \ all \ helpful$, $10 = very \ helpful$); "How grateful did you think the person would be that you told them about the situation?" ($1 = not \ at \ all \ grateful$, $10 = very \ grateful$); "How much do you think the person would have liked you after you told them about the situation?" ($1 = way \ less$, $10 = very \ less$, 10 = very

= way more); "How much do you think the person would want to see/interact with you after you told them about the situation?" (1 = they definitely did not want to see/interact with me again, 10 = they definitely wanted to see/interact with me again); "How much did you think it would change your relationship with the person after you told them about the situation?" (1 = it harmed our relationship, 10 = it improved our relationship).

We asked participants who did not give feedback to imagine what might have happened if they had, and predict: "How uncomfortable do you think the person would have felt if you had told them about the situation?" ($1 = not \ at \ all \ uncomfortable$, $10 = very \ uncomfortable$); "How embarrassed do you think the person would have felt if you had told them about the situation?" $(1 = not \ at \ all \ embarrassed, \ 10 = very \ embarrassed)$; "How valuable do you think it would have been for them to know about the situation?" $(1 = not \ at \ all \ valuable, \ 10 = very \ valuable)$; "How much do you think that knowing about the situation would have helped them?" $(1 = not \ at \ all$ helpful, 10 = very helpful); "How grateful do you think the person would have been if you had told them about the situation?" (1 = not at all grateful, 10 = very grateful); "How much do you think the person would have liked you if you had told them about the situation?" (1 = way less,10 = way more); "How much do you think the person would have wanted to see/ interact with you again if you had told them about the situation?" (1 = they would definitely did not want to see/interact with me again, 10 = they would definitely want to see/interact with me again); "How much do you think it would have changed your relationship with the person if you had told them about the situation?" (1 = it would have harmed our relationship, 10 = it would have improved our relationship).

Finally, we asked all participants the following control questions: "How embarrassing did you find the situation?" ($1 = not \ at \ all \ embarrassing$, $7 = extremely \ embarrassing$); "How did

you feel about the situation overall, at the end?" ($1 = extremely \ bad$, $7 = extremely \ good$); "How important do you think it was for the person to fix the situation (i.e., clean the smudge off their face)?" ($1 = not \ at \ all \ important$, $7 = extremely \ important$); "How much do you believe the situation reflected on the person's personality, or attitude?" ($1 = not \ at \ all$, $7 = a \ great \ deal$); "Do you think this situation was within the person's control, or outside their control?" ($1 = definitely \ outside \ of \ their \ control$, $7 = definitely \ within \ their \ control$).

Experiment 1 Additional Results

We found no significant difference between givers (M = 5.44, SD = 2.89) and receivers (M = 5.49, SD = 2.5) with regards to their predictions about how good givers would feel after giving feedback, t(2,158) = -.39, p = .70, d = -0.02. As such, we did not test this item as a mediator of condition on predicted desire for feedback, and we did not ask this question again in Experiments 2-5.

When considering at gender of participants, we found a significant main effect in which givers underestimate receivers desire for feedback among both male and female participants. This main effect of condition was qualified by a significant interaction, such that the underestimation of desire for feedback was greater for male participants (b = -.12, p = .004). Specifically, male givers more strongly underestimated receivers' desire for feedback (M = 4.26, SD = 1.91), compared to female givers (M = 4.74, SD = 1.92), t(850) = -3.87, p < .001, d = -0.25.

We varied the gender of the target individuals in the scenarios: half male and half female (randomly selected). There was no significant interaction between target individual gender and the underestimation of desire for feedback (b = .082, p = .481).

Experiment 2 Additional Methods

We asked the following questions about participants' employment before they entered the survey: "What is the size of the company?" (1 person, 2-10 people, 10-30 people, 30-100 people, 100+ people); "Which of the following best describes your current job title or role?" (Executive (C-Suite), Vice President, Director, Manager, Individual Contributor, None of the above); "How long have you been working at this company?" (2 weeks or more, 1 month or more, 6 months or more, 1 year or more); "What is the name of this company?" (free response).

We additionally asked participants who received feedback to provide more details about the feedback situation. We asked: "Who told you about the situation?" (open-ended); "Did you know the person that told you about the situation?" (Yes / No); "How well did you know the person?" (1 = the person was a total stranger, 7 = the person was a close friend or significant other); and "How did they tell you?" (open-ended). Receivers who received feedback [did not receive feedback] were asked, "When you reflect on this situation and consider how much you wanted to be told, what do you think about the most? Check the box or boxes below for each thought that crosses your mind (check all that apply)" (The first thing that I thought of was how valuable it was [would be] to know about the situation; The first thing I thought of was how uncomfortable it was [would be] for me to be told about the situation; The first thing I thought of was how uncomfortable it was [would be] for the person who told me about the situation. The first thing I thought of was how much my relationship with the person who told me about the situation changed [would change] after they told me).

Regardless of whether givers gave feedback, we asked givers, "Did somebody else tell the person about the situation?" (Yes / No); "Did you know the person?" (Yes / No); and "How well did you know the person?" (1 = the person was a total stranger; 7 = the person was a close friend or significant other). We only asked givers who gave feedback, "How did you tell the

person about the situation?" (open-ended). We asked givers who gave feedback and those who did not give feedback, "When you reflect on this situation and consider how much the other person wanted to be told about the situation, what do you think about the most? Check the box or boxes below for each thought that crosses your mind (check all that apply)" (*The first thing that I thought of was how valuable it would be for the person to know about the situation; The first thing I thought of was how uncomfortable it would be for the person to be told about the situation; The first thing I thought of was how uncomfortable it would be for me to tell the person about the situation. The first thing I thought of was how much my relationship with the person would after I tell them).*

Experiment 2 Additional Results

We found that givers who gave feedback believed their feedback was more valuable, that receiver discomfort was significantly lower, that the feedback would harm the relationship less, and that it would be less uncomfortable for them to give feedback compared to givers who did not give feedback. Specifically, we examined whether the differences between feedback givers' and receivers' perceptions of receiver value, receiver discomfort, giver discomfort, and relationship harm were moderated by whether or not the feedback was given or received, in a series of 2×2 ANOVAs. Indeed, there were significant interactions for each of the aforementioned measures, Fs = 11.23, 12.52, 13.16, and 13.89, respectively, ps < .007, $\chi^2 > .005$. Decomposing these interactions revealed that receivers valued the feedback and believed the feedback would harm the relationship to the same extent whether they were given feedback or not, p = .50, and did not report feeling significantly more uncomfortable when recalling scenarios in which they received feedback compared to when they did not, p = .14. Receivers felt the relationship harm was less when they were given feedback (M = 5.46, SD = 2.00), versus

when they were not (M = 6.08, SD = 1.83), t(203) = 2.25, p = .030, d = 0.32. In contrast, givers believed their feedback was more valuable when it was actually given (M = 6.48, SD = 2.43) than when it was not (M = 5.48, SD = 2.40), t(196) = 2.79, p = .006, d = 0.41. Givers who did not give feedback predicted receiver discomfort to be significantly higher (M = 5.34, SD = 2.42) compared to the predictions of givers who actually gave feedback (M = 3.84, SD = 2.50), t(196) = 4.08, p < .001, d = 0.61. They thought their feedback would harm the relationship less when they gave it (M = 4.11, SD = 1.69) versus when they did not (M = 5.43, SD = 2.05), t(196) = -4.57, p < .001, d = -0.68. Lastly, givers who did not give feedback thought it would be more uncomfortable to give feedback (M = 4.09, SD = 2.61) compared to the predictions of givers who actually gave feedback (M = 2.06, SD = 2.30), t(196) = 5.65, p < .001, d = 0.63.

Experiment 5 Additional Methods

First Pre-Survey: The exact items in the survey to measure receiver value for receivers [and givers] were: "How valuable do you think that getting feedback will be [to the other person]?" (1 = not at all valuable; 10 = very valuable); "How much do you think that the feedback will help you [the other person]?" (1 = not at all helpful; 10 = very helpful); and, "How grateful will you be [do you think the other person will be] for the feedback?" (1 = not at all grateful; 10 = very grateful).

To measure relationship harm, we asked receivers [givers]: "How much do you think you will like the other person after they give you feedback? [How much do you think the other person would like you after you give them feedback]?" (1 = way less; 10 = way more); "How much will you want to see/ interact with the person again after they give you feedback? [How much do you think the other person would want to see/ interact with you again after you give them feedback]?" (1 = definitely will not want to see/interact with them [me] again; 10 =

definitely will want to see/interact with them [me] again); and, "How much do you think that getting feedback will hurt your [the other person's] feelings?" (1 = not at all; 10 = very much).

To measure receiver discomfort, we asked receivers [givers]: "How uncomfortable do you think that getting feedback will make you [the other person] feel?" ($1 = not \ at \ all$ uncomfortable; $10 = very \ uncomfortable$), and, "How embarrassed do you think that getting feedback will make you [the other person] feel?" ($1 = not \ at \ all \ embarrassed$; $10 = very \ embarrassed$). To measure giver discomfort, we asked receivers [givers]: "How uncomfortable do you think that giving feedback to you will make the other person feel [giving feedback will make you feel]?" ($1 = not \ at \ all \ uncomfortable$; $10 = very \ uncomfortable$), and, "How embarrassed do you think that giving feedback to you will make the other person feel [giving feedback will make you feel]?" ($1 = not \ at \ all \ embarrassed$; $10 = very \ embarrassed$).

Participants also predicted how much receiving feedback would *improve the receiver's speech score* in the receiver [giver] conditions: "Your [the other person's] practice speech and final speech will be scored by an external rater based on the feedback guide. They will score the practice and final speech on a scale from 1 (low quality) to 10 (high quality). How much do you think getting feedback on your [the] practice speech will affect your [the other person's] score for the final speech?" (1 = my [their] final speech will be way worse than my [their] practice speech (1 or more points lower), 7 = my [their] final speech will be scored much higher than my [their] practice speech (1 or more points higher)).

In this experiment, we additionally asked givers to report and receivers to predict givers' desire for giving feedback. Specifically, we asked, "How much do you want to give feedback to the other person? (givers), or, "How much do you think the other person wants to give feedback to you? (receivers; 1 = not at all; 10 = very much).

We asked receivers and givers two additional questions: "If you had a choice to get feedback on your speech or not, what would you pick?" (*Prefer not to get feedback*; *Prefer to get feedback*), additional question we asked givers was, "If you had a choice to give feedback to your partner on their speech or not, what would you pick?" (*Prefer not to give feedback*; *Prefer to give feedback*).

We asked receivers (not givers) to indicate which of the following five categories they wanted feedback on: disfluencies, eye contact/ facial expressions, hand motions/ body language/ gesturing, demeanor/ attitude/ confidence, rate of speaking/ breathing.

Second Pre-Survey: We again asked receivers to indicate which of the following five categories they wanted feedback on: disfluencies, eye contact/ facial expressions, hand motions/ body language/ gesturing, demeanor/ attitude/ confidence, rate of speaking/ breathing.

Post-Survey: We first asked participants to predict and report how much they *enjoyed* receiving [giving] feedback: "How much did you enjoy getting feedback from [giving feedback to] the other person?" and, "How much do you think the other person enjoyed giving feedback to [getting feedback from] you?" (1 = not at all, 10 = very much).

We also asked receivers [givers], "Which of the following categories did you get [give] feedback on?" (verbal disfluencies; eye contact/ facial expressions; hand motions/ body language/ gesturing; demeanor/ attitude/ confidence; rate of speaking/ breathing).

We also asked receivers two additional questions about the feedback: "How receptive were you to the feedback given to you?" (1 = definitely not receptive, 10 = very receptive) and, "How likely are you to implement the feedback you received in your future speeches and presentations?" (1 = not likely to implement in future, 10 = very likely to implement in future).

Feedback Guide: For each category, please provide detailed feedback to the other person about what they are doing poorly and how they can improve.

Categories	Notes
1. Disfluencies (e.g., saying "uh", "like" too much) Please count the number of verbal disfluencies that the speaker says (such as "um") and report them.	
2. Eye contact / Facial expressions Please report when the speaker does not make eye contact or makes inappropriate or ineffective facial expressions.	
3. Hand motions / Body language Please record how the speaker's gestures, posture, and body language more generally may be ineffective (e.g., shifting or rocking movements).	
4. Demeanor (e.g., seeming under-confident) Please note any times when the speaker did not convey confidence and positive attitude in any aspect of their speech.	
5. Breathing, pace (e.g., not remembering to take breaths)	

Please focus on the speaker's breath and rate of speech. Notice when their speech may feel too quick or too slow, or when they seem to be breathing too rapidly or not breathing enough

Instructions to Givers. Givers were given the following instructions before they gave feedback to receivers:

Your job is to provide feedback to the other person to make their speech better after a practice round. If the other person wins, you will receive an Amazon gift-card for \$25. To give feedback, please use this feedback guide. You will be asked to give feedback on each of the 5 categories on this guide. For each category, you will write detailed feedback to the other person about what they are doing poorly and how they can improve.

Experiment 5 Additional Results

Binary choice: give/ receive feedback. We found no difference in givers and receivers being asked whether they wanted to give/ receive feedback or not: most receivers chose to receive feedback (87%) and most givers (82%) chose to give feedback, $\chi^2(1, N = 204) = .61 p = .44$.

Speech scores. Both givers and receivers alike believed that the feedback would improve receivers' speech scores, with no differences in predicted improvements before ($M_{rec} = 5.34$, SD = 0.84; $M_{giv} = 5.48$, SD = 0.82) versus after ($M_{rec} = 5.38$, SD = 0.87; $M_{giv} = 5.56$, SD = 0.73) the competition, ps > .117. Receivers did indeed improve their speech score from their practice speech (M = 6.00, SD = 1.20) to their final speech (M = 6.38, SD = 1.18), $paired\ t(87) = 4.0$, p < 0.001, d = 0.43.

Categories for feedback. We found no significant difference in the five categories in which givers and receivers indicated they wanted to give (receive) feedback, in the first presurvey, second pre-survey, or post-survey (p's > .43),

Enjoyment giving and receiving feedback. Givers predicted that receivers experienced less enjoyment receiving feedback (M = 6.67, SD = 1.99) than receivers actually reported that they felt (M = 8.23, SD = 1.79), t(202) = -5.89, p < .001, d = -0.82. Receivers relatively accurately predicted givers' level of enjoyment ($M_{rec} = 7.31$, SD = 1.92; $M_{giv} = 7.01$, SD = 1.91), t(202) = 1.13, p = .259, d = 0.16.

Desire for giving feedback. We also asked givers to report, and receivers to predict, the desire for giving feedback. Exploring the results from these new items revealed that, in the first pre-survey, receivers (M = 5.02, SD = 1.95) underestimated givers' (M = 7.09, SD = 2.10) desire to give feedback, t(202) = -7.30, p < .001, d = -1.02; however, in the second pre-survey this effect reversed such that receivers (M = 6.56, SD = 2.21) overestimated givers' (M = 5.88, SD = 1.96) desire to give feedback, t(202) = 2.32, p = .022, d = 0.33. Indeed, givers' desire to provide feedback dramatically decreased in the second pre-survey (M = 5.88, SD = 1.96) compared to the first pre-survey (M = 7.09, SD = 1.96; by more than 1 point on the Likert scale), paired t(101) = -5.22, p < .001, d = -0.52. This suggests that perhaps in the abstract they wanted to give feedback, but when actually faced with having to do it soon, they had much less desire to do so. In contrast, receivers' desire to get feedback actually increased from the first (M = 7.25, SD = 2.33) to second (M = 7.68, SD = 2.33) pre-survey, paired t(101) = 2.76, p = .007, d = 0.28, indicating that they wanted the feedback more as their performance loomed closer.

Correlations with the desire to give feedback. Finally, we examined whether givers' reported desire to provide feedback (in the first and second pre-surveys), their reported discomfort with giving feedback, expected value for the receiver, and predictions about relationship harm correlated with any of the types of feedback that they actually gave. The only significant correlations that emerged were with the desire to provide feedback and the amount of

constructive feedback given, and with the level of discomfort givers felt and the percentage of positive, neutral, and constructive feedback they gave. A non-significant correlation emerged between the estimated value of feedback to the receiver, and the amount of constructive feedback given. Non-significant correlations emerged between givers' anticipated relationship harm, and the amount of positive, neutral, and constructive feedback they gave.

Supplemental Table S1

Correlations between Type of Feedback Provided and Giver Desire to Give Feedback,

Anticipated Discomfort Giving Feedback, Anticipated Relationship Harm, and Value of

Feedback to Receiver

Feedback type	Positive	Negative	Neutral	Constructive
Desire to provide feedback	.069	.134	.088	.220*
Anticipated discomfort giving feedback	227*	161^{\dagger}	232*	236*
Value of feedback to receiver	.022	.077	.004	$.19^{\dagger}$
Relationship harm	204^{\dagger}	04	203^{\dagger}	193 [†]

Supplemental Table S2 Correlations between Type of Feedback Provided and Practice Speech Scores, Final Speech Scores, and Performance Improvement Scores

Feedback type	Positive	Negative	Neutral	Constructive
	M = .53 $SD = .19$	M = .38 $SD = .16$	M = .09 $SD = .08$	M = .37 $SD = .23$
Practice speech scores	.283**	239*	197^{\dagger}	259*
Final speech scores	.269*	229*	189^{\dagger}	279**
Percentage improvement from practice to final	134	.070	$.175^{\dagger}$.101

Note. Each cell shows the Pearson's correlation between the two variables. Each column is the percentage of unique pieces of positive, negative, neutral, and constructive feedback provided. Significance is denoted by: $^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$, $^{**}p < .001$.

Summary of Deviations from Preregistrations

We preregistered all of the studies presented in this paper except the Pilot Study (Experiments 1, 2, 3, 4, and 5) on AsPredicted.org. The links to the preregistrations are included in the Methods section of each study.

Across Experiments 1-5, we pre-registered that givers' considerations of their own experiences (i.e., their estimations of their own discomfort giving feedback and relationship harm) would mediate their underestimation of receivers' desire for feedback. However, upon further reflection, we believe these variables make more sense as predictors of givers' estimation of receivers' desire for feedback rather than as mediators that explain why receivers' reports differ from givers'. As such, we added regression models in Experiments 1-5 that we did not register, with givers' predictions about receivers' desire for feedback as the outcome variable, and givers' beliefs about their anticipated discomfort, receivers' discomfort, the potential for relationship harm, and the value of the feedback to the receiver as predictor variables.

Beyond this absence, our methods and results deviate from our preregistrations in the following ways:

Experiment 1

• We preregistered to measure a potential mediators "Giver Benefits: How much would you feel good about telling [colleague] that [issue] (for instance, because the information could be helpful)?/ How much would [colleague] feel good about telling you that [issue] (for instance, because the information could be helpful)?". We did not find a significant difference between groups, so we did not test this as a mediator. This analysis is included in the Supplemental Materials (p. 86), and we did not ask this question in future experiments (Experiments 2-5)

- Due to a survey error, we only asked these manipulation check questions for 9 out of the 10 scenarios. The "interrupting" scenario was left out of the manipulation check questions.
- Although we preregistered a simple t-test analysis, we conducted a follow-up robustness analysis to control for the effect of scenario in a 2 (condition) \times 10 (scenario) ANOVA.

Experiment 2:

• We preregistered to recruit 400 participants, but 403 adults from Prolific Academic agreed to participate in a study. 4 of these participants did not meet the requirements for generating an appropriate feedback scenario, so they were excluded from our analyses, leaving 399 participants in our analyses.

Experiment 3:

• No deviations from pre-registration

Experiment 4:

• We did not test our third pre-registered hypothesis that givers' estimation of relationship harm will predict their estimation of receivers' desire for feedback. We did not collect predictions of relationship harm in this study because one of the intervention conditions asks givers to imagine someone else is giving feedback.

Experiment 5:

- We preregistered to ask discomfort questions again after the feedback-giver gave feedback on the practice speech, but in the actual experiment we did not ask participants to predict their partners' discomfort in the post-survey. Thus, givers answered questions about their own experienced discomfort, but were not asked to estimate receivers' discomfort. Similarly, receivers answered questions about their own discomfort, but were not asked to estimate givers' discomfort.
- We did not preregister the following exploratory analysis: we examined whether the amount of constructive feedback received was more strongly associated with performance improvement for those who performed worse on the practice speech.
- We added a regression analysis to examine the relationship between desire for feedback as the dependent variable and the interaction between condition and first vs. second survey as a predictor variable.
- We preregistered two coding categories whether the feedback is positive (i.e., focuses on things that were done well) vs. constructive (i.e., focuses on things that could be improved or were done poorly). However, after reviewing the feedback generated during the actual experiment, we added a category of "neutral" feedback. This led to three coding categories: 1. Positive feedback was defined as feedback that focused on things that were done well. 2. Negative feedback was defined as feedback that focused on things that were done poorly. 3. Feedback was categorized as neutral when the giver pointed something out without indicating whether it was good or bad.