Forecasting Reticence in Conversations: Correlates and Causes

Quinn Alessandra Hirschi
Houston, TX, USA

M.A., University of Virginia, 2019
B.A., The University of Texas at Austin, 2014

A Dissertation presented to the Graduate Faculty
of the University of Virginia in Candidacy for the Degree of
Doctor of Philosophy

Department of Psychology

University of Virginia
May 2022

Committee Members:
Timothy D. Wilson (Chair)
Adrienne Wood
Benjamin A. Converse
Josipa Roksa

Table of Contents

Abstract

Conversations with new people generally go well and lead to greater liking; those who speak up are often particularly well-liked. However, people underestimate how much their new conversation partners like them, a phenomenon that has been termed the liking gap. This might occur because people project their negative self-views about their conversational abilities onto their conversation partners through a process called egocentric projection. I have discovered that people think the best strategy for being liked in a conversation with someone new is to speak significantly less than 50% of the time, and have termed this phenomenon *forecasting reticence*. In Studies 1 and 2, I find evidence that forecasting reticence, similar to the liking gap, is caused, at least in part, by conversational insecurities. In Study 2, I find that forecasting reticence is related to real conversational behavior. Finally, in Study 3, I confirm that forecasting reticence reflects a hesitance to speak up that is independent of people's hesitance to self-disclose. This research uncovers more about the correlates and causes of forecasting reticence.

Introduction

From dinner parties to encounters on airplanes to chats with new co-workers at the water cooler, there are endless opportunities for people to engage in initial conversations. But, how does one make a good impression in such interactions? In one of the best-selling books of all time, *How to Win Friends and Influence People,* Dale Carnegie advises people to let others "talk about themselves and their accomplishments. Remember that the people you are talking to are a hundred times more interested in themselves … than they are in you" (Carnegie, 1936, p. 144). In my research, I have found this to be a widely held belief: people think they should cede the floor to their new conversation partners to be liked. But where does this belief come from and how does it impact people? In this dissertation, I will address these questions in order to shed light on who holds this belief, where it comes from, contexts in which the belief is more salient, and how it impacts people's behavior.

Conversations with Strangers Generally Go Well

Undoubtedly, conversations with new people can be awkward. Many people don't know how to start a conversation and keep it going without awkward silences (Welker et al., under review). When people do start talking, they are not quite sure what to talk about (Cooney et al., 2014, 2017). And then, when they are ready to end the conversation, they are not sure exactly when and how to close it out (Mastroianni, Gilbert, et al., 2021).

However, although conversations between new acquaintances can be a bit awkward at times, in general, they tend to go surprisingly well and lead to greater liking. For example, in one study, after undergraduate research participants briefly interacted with a confederate, participants reported liking the confederate above the mid-point of a 9-point scale on average (*1 = extremely dislikable, 9 = extremely likable*; Chartrand & Bargh, 1999), regardless of the confederate's

exact behavior. This result suggests that simply showing up appears to be an important first step toward being liked by a new interaction partner.

After showing up, the next step toward being liked appears to be simply conversing and opening up to one another. In classic studies conducted by Aron et al. (1997), pairs of undergraduate students spent 45 minutes answering questions about themselves that were designed to generate intimacy through increasing amounts of self-disclosure. Participants enjoyed the task a great deal; that is, they reported a mean enjoyment rating of 5.78 on a scale ranging from *1 = Not Very Much* to *7 = Very Much*, and even frequently mentioned the task as one of the highlights of their course in their student evaluations at the end of the term (Aron et al., 1997).

In Conversations with New People, Listening Often Leads to Greater Liking

In the Aron et al. (1997) paradigm and other getting-acquainted paradigms, participants take turns answering questions about themselves. This exercise could generate liking via two distinct, but related, routes. That is, receiving disclosure could cause the recipient to like the discloser more, or disclosing to a person could cause the discloser to like the recipient more. Thus, Sprecher et al. (2012) conducted a study in which people took turns giving and receiving disclosure, in order to experimentally isolate whether speaking or listening drives the effectiveness of such paradigms.

In such interactions, why would *listening* increase liking? One theory, proposed by Altman and Taylor (1973), is that because relationships develop through gradual increases in the breadth and depth of self-disclosures, when a person discloses to their partner, it can communicate to their partner a desire to become more intimate, and this can feel rewarding (Taylor, 1979; Worthy et al., 1969). A second theory, from an uncertainty reduction perspective,

is that self-disclosure reduces uncertainty or ambiguity about the discloser. Further, from an information-processing perspective, the information gained by the recipient, particularly when it is positive, can promote more positive beliefs about the discloser (Collins & Miller, 1994).

To test whether *listening* (vs. speaking) does indeed drive the effectiveness of getting acquainted paradigms, Sprecher et al. (2012) had pairs of undergraduate students engage in two 12-minute interactions over Skype, and then complete surveys after each interaction. In the first 12-minute interaction, one person was randomly assigned to speak (i.e., answer questions adapted from Aron et al., 1997; Sedikides, Campbell, Reader, & Elliot, 1999), and in the second 12-minute interaction, the other person answered similar, but different, questions. After each interaction, participants reported how much they liked the other person, how close they felt to them, how similar they felt to them, how much they enjoyed the interaction, and how much information they felt they had given and received.

The results suggested that *listeners* liked *speakers* more than *speakers* liked *listeners*. That is, after the first interaction, the participants who *listened* reported greater liking, enjoyment, and perceived closeness than did participants who *spoke*. But, after the second interaction (that is, after both participants had disclosed), the two participants' perceptions of liking, enjoyment, and closeness did not differ from one another. This is because initial speakers' perceived liking, enjoyment, and closeness increased greatly after the second interaction (in which their partner disclosed to them), while initial listeners' perceived liking, enjoyment, and closeness increased more modestly. Further, a bootstrapped mediation test suggested that increased liking was driven in part by greater perceived similarity. That is, the more information a participant felt they received, the more similar they felt to their partner, and thus, the more they liked them.

I recently conducted a lab study in which pairs of college students who had never met before or barely knew each other (n = 116) engaged in 7-minute getting-acquainted conversations that varied in the extent to which each person spoke (Hirschi et al., in press). That is, a computer program guided participants through their conversation by prompting them to answer specific questions about themselves and giving them a set amount of time to answer each question. Participants were randomly assigned to speak for 30%, 40%, 50%, 60%, or 70% of the time (that is, if one person spoke for 70% of the time, their partner would have spoken for 30% of the time). I found that participants who were randomly assigned to speak more were indeed liked more. Though, I should note that a limitation of both this paradigm and the Sprecher et al. (2012) paradigm is that neither one of them emulates the nuances of more naturalistic conversations (e.g., situations in which conversation partners determine amongst themselves how much time each person has to speak; consider that the *choice* to dominate the conversation or cede the floor could contribute to how likable people are).

Research on more naturalistic conversations has also found that when one contributes more to a conversation, others will find them to be more interesting. Specifically, after undergraduate research participants had a 5-minute tape-recorded conversation in the lab, independent judges read the transcripts of these conversations and rated how boring vs. interesting each target appeared. The total number of utterances spoken by a person correlated r = .43, $p < .001$ with independent judges' ratings of how interesting they appeared. Further, when new undergraduate research participants listened to the tape recordings of the three most interesting and the three most boring targets from this study, the new research participants not only agreed that the "most interesting" conversationalists were more interesting than the "most boring" conversationalists, but the new participants also found the interesting conversationalists

(i.e., those who spoke more) to be significantly more likable, interested, involved, friendly, enthusiastic, popular, emotional, intelligent, personal, strong, secure, and capable of leadership (Leary et al., 1986).

Although there are of course limitations to these studies, they are consistent with findings from yet another study in which undergraduate students (n = 36) used a smartphone app that stored audio information from their conversations over the course of six days. After each conversation, participants reported how they felt during the conversation on a scale from *1 = very unhappy* to *7 = very happy*. Participants reported greater enjoyment after the conversations in which they spoke for a smaller percentage of the time, b = -.19, $t(30) = 3.98$, $p < .001$. In other words, the more their conversation partner spoke, the happier they were (Sandstrom et al., 2016). Although the conversations studied were not strictly limited to those occurring between strangers, taken together, the collective body of evidence suggests that speaking up in conversations with new people could be the right strategy if one hopes to come across as likable, interesting, and enjoyable.

As noted, there are limitations to each of the studies reviewed, and another recent study in which participants had unstructured conversations over Zoom that lasted about 25 minutes, on average, found a negative correlation between speaking time and how much participants were liked (G. Cooney, personal communication, July 21, 2021). Thus, further research must be conducted to determine if, and perhaps more importantly, *when* speaking up is the best strategy, but overall, evidence to date suggests that speaking up is likely an optimal strategy for being liked in conversations with new people.

It is worth noting that this does not mean people should completely dominate the conversation. There is likely a point at which one could speak *too much*. Consider studies in

which pairs of undergraduate research participants either disclosed continuously back and forth during two 12-minute interactions (i.e., took many turns speaking), or one person spoke continuously for the first 12 minutes, and then the other person spoke continuously for the next 12 minutes (i.e., took minimal turns speaking). Participants who took many turns speaking liked each other more, felt closer and more similar to one another, and enjoyed their interactions more than those who took minimal turns speaking. These findings suggest that although it is important to speak up, it is perhaps even more important to engage with your interaction partner, rather than bulldoze them (Sprecher et al., 2013). Further, consider that there is a robust literature on sexual behavior among non-human animals suggesting there is likely a saturation point at which additional familiarity ceases to increase liking or perhaps even undermines it, which has become known as the Coolidge effect (Wilson, Kuehn, & Beach, 1963). It is not hard to imagine that this phenomenon could occur in conversations between new acquaintances as well. For example, one might enjoy a conversation with a new acquaintance on a flight, thinking that the flight would only last one hour. Then, upon realizing they would be stuck on the runway for another three hours, might grow tired of the conversation and thus their previously increasing feelings of liking might falter or begin to decline.

In sum, research to date suggests that although conversations with new people can be a bit awkward at times, they generally go well and lead to greater liking. Several studies suggest that speaking up is an optimal strategy for being liked in such conversations, although a recent correlational study found a negative relationship between talking time and partner liking. Regardless of whether (and when) the trend is generally positive or generally negative, it is likely quadratic, too, in the sense that there is likely a saturation point after which people could speak *too much*, and their partners' liking could begin to decline.

The Liking Gap

Despite the fact that conversations with strangers generally go well and disclosure leads to greater liking in many situations, people consistently underrate their own performance. That is, people tend to underestimate how much their new conversation partners like them and enjoy their company (Boothby et al., 2018; Carlson & Kenny, 2012; Huang et al., 2017; Stopa & Clark, 2000), a phenomenon that has recently been termed the liking gap (Boothby et al., 2018).

For example, after same-sex undergraduates had a five-minute conversation in the lab, guided by icebreaker questions, they reported liking their conversation partners more, on average, than they thought their conversation partners liked them. This phenomenon has also been seen in more natural settings (such as professional workshops), after short, medium, and long conversations, between undergraduate roommates over the better part of an academic school year, and among members of groups and teams (Boothby et al., 2018; Mastroianni, Cooney, et al., 2021). Researchers have also found that the phenomenon emerges around age 5, which is the age at which children become more concerned with the impressions they make on others (Wolf et al., 2021), and in our own research, we have found that the liking gap is larger when people speak about themselves (Hirschi et al., in prep.).

Forecasting Reticence

Not only do people underestimate how much their new conversation partners like them, they also think they should speak less than their partners in order to be liked (Hirschi et al., in press). That is, Amazon MTurk workers, American undergraduate students, and U.K. and U.S. residents recruited via Prolific Academic all report that the best strategy for being likable in a dyadic conversation with someone new is to speak significantly less than 50% of the time. This effect holds whether people believe the choice to speak more vs. less will appear within their

control or out of their control. Further, forecasted speaking time to be liked has been found to be positively correlated with extraversion, openness to new experiences, education level, and socioeconomic status, though even the most extraverted and open participants reported that they would not speak more than 50% of the time to be liked (Hirschi et al., in press). Hirschi et al. (in press) referred to the fact that people think they should speak less than 50% of the time to be liked as *reticence bias*, but in this dissertation, I will refer to it as *forecasting reticence.*

Negative Self-Perceptions and Egocentrism

Why do people exhibit the liking gap and forecasting reticence? Boothby and colleagues (2018) suggest that the liking gap arises from people's conversational insecurities. Specifically, Boothby et al. (2018) report that although people do signal that they like each other during conversations, they often neglect these signals when estimating how much their partners like them, and this occurs because people are overly focused on their self-perceptions, which are remarkably negative in regard to their conversational abilities.

To illustrate just how negative people are in regard to their conversational abilities, consider that when asked to rate how effectively they could perform 20 daily activities in comparison to their peers, people rated having a conversation with someone new as the *only* activity out of 20 in which their performance would be below average. Further, when participants reported what they find most difficult about conversing with new people, over half (53%) said they worry about not knowing what to say and 35% said they worry about saying the wrong thing, while only 9% said they worry about their partner's performance (and only 3% said they do not worry about such interactions; Welker et al., under review). Thus, most people worry about these kinds of interactions, and in particular, about their own performance, rather than about other external factors, such as their partner's contributions. Additionally, after such

interactions, if something went poorly, people tend to blame themselves for the mishap, rather than their partner or other external circumstances (Welker et al., under review).

Further, consider that social anxiety is one of the most common mental health problems (Harvard Medical School, 2007), and it is thought to stem from two interpretation biases: (1) interpreting ambiguous social events through a negative lens, and (2) coding social events that are only mildly negative as catastrophic (Beck et al., 1985; Beck & Clark, 1988). Consider an ambiguous social situation such as "you have visitors over for a meal and they leave sooner than expected." Possible interpretations of this event include: (1) "they did not wish to outstay their welcome" (neutral); (2) "they had another pressing engagement to go to" (neutral); or (3) "they were bored and did not enjoy the visit" (negative). Or consider a mildly negative social situation such as "you've been talking to someone for a while and it becomes clear they're not really interested in what you're saying." Possible interpretations could include: (1) "their mind was probably on something else" (neutral); (2) "it doesn't matter, I can't be interesting to everyone in the world" (neutral); or (3) "I'm a boring person" (catastrophic). When compared to control participants, participants with social anxiety assigned more negative interpretations to ambiguous social situations, reported that negative interpretations were more likely to come to their mind, and said they were more likely to believe negative interpretations. Participants with social anxiety were also more likely to assign catastrophic interpretations to mildly negative events, and said catastrophic interpretations of such events were more likely to come to mind and that they were more likely to believe them (Stopa & Clark, 2000).

Thus, it is clear that many people's self-perceptions regarding their conversational abilities tend to be quite negative, but just how much weight do they give to these self-perceptions when attempting to discern what their conversation partners think (in comparison to

feedback from their partners, for example)? Unfortunately, research suggests that people essentially project their own negative self-perceptions onto their conversation partners through a process called *egocentric projection*. Specifically, when people try to infer what others think, they tend to anchor from their own perspective and then adjust slightly from there (Epley et al., 2004).

This is demonstrated by the fact that people's *meta-perceptions* (i.e., how they think others view them) are strongly correlated with how they view themselves (r = .87; Kenny, 1994). Further, people overestimate the degree of consistency between different people's perceptions of them, and are better at understanding how they are viewed by others in general than they are at understanding the unique impressions they make on specific individuals. For example, suppose someone who considers themselves to be a "6" out of 10 in terms of their conversational abilities just attended a speed dating event. This person would likely overestimate the degree to which all of their conversation partners considered them to be a "6" out of 10 as well, which would arise from their tendency to project their own self-views onto their conversation partners. In fact, one of their conversation partners considered them to be a "3," while another considered them to be a "9," and several others said 5, 6, and 8. Overall, this averaged out to around 6, making their *generalized meta-accuracy* (or their ability to understand their general reputation) relatively accurate. However, their ability to correctly detect the unique impression they made on each individual was not great (Kenny & DePaulo, 1993).

So how, exactly, does egocentric projection work? Studies suggest that when people try to infer what others think, they tend to anchor from their own perspective and then adjust from there. When "adjusting," people tend to be "satisfied" once they have reached a plausible estimate for another person's perspective. That is, because the true value of how interesting

another person found them in a conversation, for example, cannot be known, people will be satisfied with their estimate if they simply adjust a little bit from their own perspective until they reach a plausible estimate. Thus, if people have negative views of their own conversational abilities, and then adjust from there, until they arrive at a plausible estimate for their conversation partner's view, they will be "satisfied" with overly negative, but still plausible, estimates, and will not do extra work to try to arrive at more accurate estimates (Epley et al., 2004; Epley & Gilovich, 2006).

Epley and Eyal (2019) suggest that one variation of egocentric bias arises from the fact that people use more fine-grained details to evaluative themselves (compared to their evaluations of others), given how psychologically close people are to themselves (Eyal & Epley, 2010; Liberman & Trope, 2008). Consider that people tend to construe psychologically distant objects (such as other people) more abstractly, but psychologically close objects (such as themselves) more concretely (Eyal & Epley, 2010). A higher construal level due to greater social distance is associated with an increased search for positive information, which suggests people would focus on the positive aspects of their partners' performance (e.g., their general "positive vibe"), but on the negative aspects of their own performance (e.g., their joke that fell flat). This would lead people to view their conversation partners positively, but think that their conversation partners view them negatively, because they would be using their own low-level, negatively biased view of themselves to infer how their partners view them (e.g., Boothby et al., 2018).

Indeed, some evidence suggests the fact that people use more fine-grained details to evaluative themselves may contribute to forecasting reticence. In a recent study, I found that when undergraduate students were asked to imagine having a Zoom conversation with another student they had never met before either from a high construal level perspective (i.e., in a distant

location in the distant future) or from a low construal level perspective (i.e., in a nearby location in the near future), participants reported that they would speak more in the high construal level condition (in comparison to the low construal level condition). The difference did not reach statistical significance, but it suggests that shifting people's perspective from a low to high construal reduces forecasting reticence.

Taken together, the evidence reviewed suggests that the liking gap arises from people projecting their negative self-perceptions about their conversational abilities onto their conversation partners through a process called egocentric projection. It is likely that forecasting reticence arises from the same negative self-perceptions, although further research must be conducted to confirm this hypothesis.

Alternative Hypotheses

Although I hypothesize that forecasting reticence arises from people's negative self-perceptions in conversations, which they project onto their conversation partners, there are at least two alternative hypotheses to consider. First, forecasting reticence could arise from overestimating how much others prefer speaking to listening. If forecasting reticence arises *only* from overestimating how much others prefer speaking, people would predict that other people should speak significantly less than 50% of the time to be liked, and there would be no difference in terms of how much people think they should speak versus how much they think others should speak. Further, forecasting reticence would not be related to or impacted by people's own social and conversational insecurities. However, if people think others should speak *more* than they should to be liked (rather than the same amount of time), but that others should still speak less than 50% of the time, this would suggest that forecasting reticence could arise from *both*

conversational insecurities and a general theory that others prefer speaking to listening. I will thus test these questions in the present research.

Second, forecasting reticence could also arise from underestimating how much other people will like our self-disclosures. For example, recent research has found that people underestimate how much they will enjoy deep conversations with new people because they underestimate how much their new conversation partners will care about their self-disclosures (Kardas et al., 2021). Further, I have found that people underestimate how interesting and enjoyable others find the stories they tell about themselves, above and beyond their underestimation of how much their conversation partners enjoy their contributions in general (Hirschi et al., in prep.). I have also found that forecasted speaking time to be liked is independent of the percentage of time one wants to focus on one's self in a conversation. That is, people think they should both speak less and focus on themselves as a topic less, but there is no interaction between these two variables (Hirschi et al., in press). I thus hypothesize that people will think they should speak less to be liked, and disclose less to be liked, but that there will be no interaction between these two variables. This would suggest that forecasting reticence reflects a hesitance to speak up that is independent of people's hesitance to disclose about themselves.

However, as noted, I do not consider the three hypotheses outlined here to be mutually exclusive, and the goal of the present research is to learn more about the extent to which each pathway could contribute to forecasting reticence. Although of course, further work will need to be done beyond this dissertation to fully answer these questions.

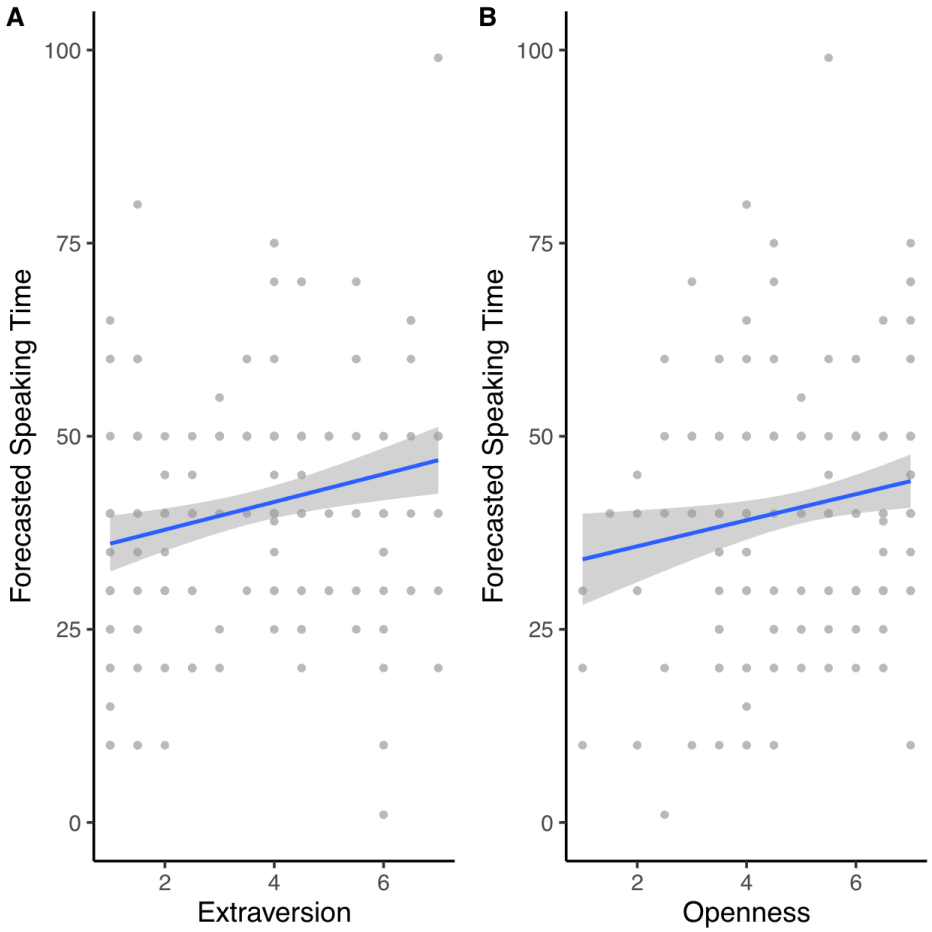
Known Correlates of Forecasting Reticence

In support of the hypothesis that forecasting reticence is rooted in people's conversational insecurities, consider that I have so far found that forecasted speaking time to be liked is

positively correlated with extraversion, openness to new experiences, education level, and socioeconomic status—all personal characteristics that are likely linked to confidence in interactions with new people. Specifically, I have found that the more extraverted and open people are, the more they think they should speak to be liked when having a conversation with someone new (however, even the most extraverted and open people did not report thinking they should speak more than 50% of the time to achieve this goal; see Figure 1; Hirschi et al., in press). It is also worth noting that extraversion and openness tend to hang together in higher-order factor solutions of the Big Five personality traits and have thus been labeled together as *Plasticity*. Further, Plasticity has been linked to decreased conformity and increased ability to adapt to change, which are outcomes that could also be positively related to confidence in interactions with new people (DeYoung et al., 2002; Digman, 1997).

Figure 1

Forecasted Speaking Time to be Liked by Extraversion and Openness to New Experiences



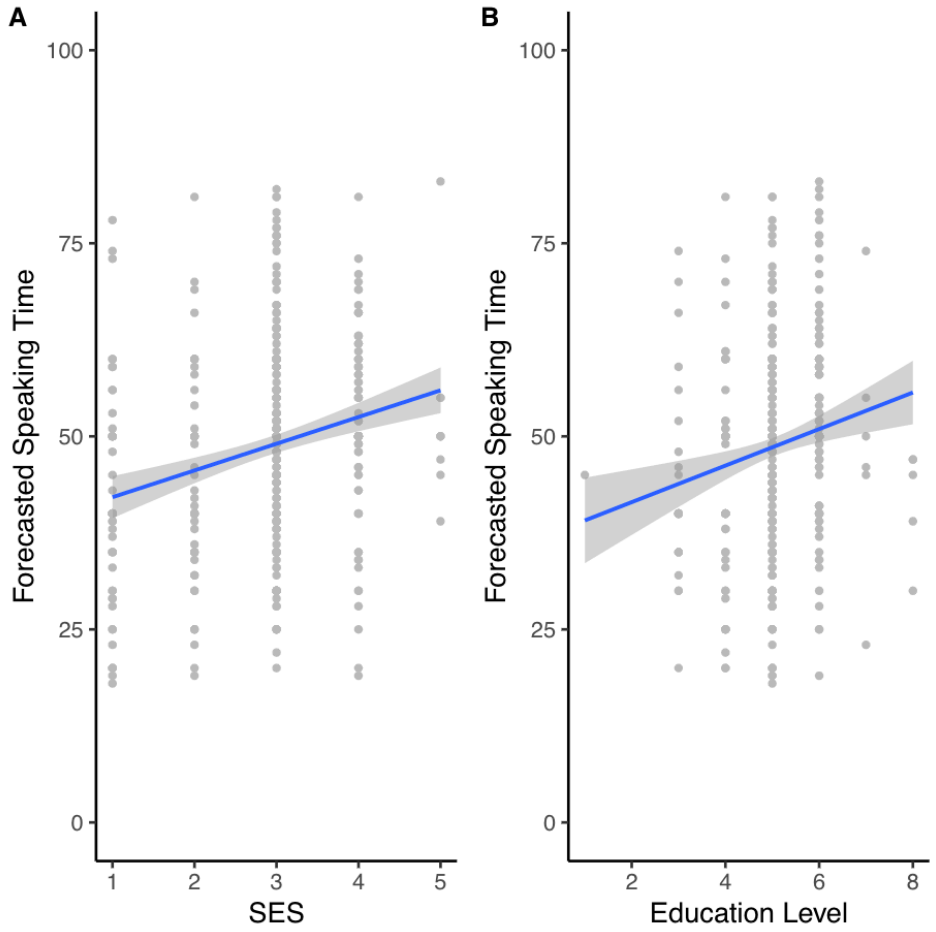
Note. The shaded areas represent the 95% CIs around the linear trends.

I have also found, in an unpublished study, that forecasted speaking time is positively correlated with socioeconomic status and education level. That is, the wealthier and/or more educated one is, the more they think they should speak to be liked when talking to a new person of their same age and gender; see Figure 2. Perhaps this occurs because very wealthy and/or educated people assume they are wealthier and/or more educated than their average peer;

perhaps these are markers of status that make them feel more comfortable in such interactions, and the inverse could be true for people who are less wealthy and/or less educated than their average peer.

Figure 2

Forecasted Speaking Time to be Liked by Socioeconomic Status and Education Level



Note. The shaded areas represent the 95% CIs around the linear trends.

The Present Research

However, this hunch that forecasting reticence is related to a lack of confidence in one's conversational abilities would be strengthened by further research exploring other potential correlates of forecasting reticence, including testing whether it is associated with perceived partner liking in conversations with new people, and by garnering experimental, rather than just correlational, evidence. Thus, the first goal of my dissertation will be to learn more about the correlates and causes of forecasting reticence by testing the specific hypothesis that forecasting reticence arises from people's insecurities in social and conversational contexts.

After learning more about the correlates and causes of forecasting reticence, I will next investigate whether forecasting reticence is related to real-world behavior. Given that much of the extant research suggests that speaking up is an optimal strategy for being liked in conversations with new people, it is important to determine whether endorsing this belief is related to doing the opposite (i.e., holding back and speaking less). That is, is holding this belief associated with behavior that undermines people's goals? If so, this would be an important contribution because it would suggest that we can promote positive behavior change (i.e., helping people speak up in conversations with new people) if we can find a way to target and redirect this belief.

Last, this dissertation will test whether forecasting reticence is independent of people's hesitance to self-disclose (that is, is there an additional hesitance to speak up that goes beyond people's hesitance to self-disclose?). Given recent findings that people underestimate (a) how much their new conversation partners will care about their self-disclosures (Kardas et al., 2021), and (b) how interesting and enjoyable others find the stories they tell about themselves, in particular (Hirschi et al., in prep.), it will be important to determine whether forecasting reticence

is simply a reflection of these beliefs (i.e., a hesitance to self-disclose), or a more general underestimation of how much one's conversation partner will enjoy all of one's contributions.

Initial Studies

As mentioned in the preceding review, I previously conducted several studies establishing forecasting reticence, and one study testing the actual effects of speaking time on liking (Hirschi et al., in press).

The pilot study in Hirschi et al. (in press) and an unpublished study that I will refer to here as Pilot Study A established forecasting reticence and showed that it is positively correlated with extraversion, openness to new experiences, education level, and socioeconomic status. Specifically, the pilot study in Hirschi et al. (in press) was an online survey conducted with 186 Amazon MTurk participants. All participants reported the percentage of time they would speak in a 10-minute conversation with a new person of their age and gender in order to be liked, and then completed the Ten-Item Personality Inventory (Gosling et al., 2003). I found that people thought they should speak an average of 40.77% of the time to be liked (SD = 14.73); this was significantly less than 50% of the time, $t(184) = -8.54$, $p < .001$. Further, I found that the more extraverted participants were, the more they thought they should speak to be liked, $b = 1.80$, $SE = 0.57$, $t(184) = 3.14$, $p = .002$, and the more open to new experiences participants were, the more they thought they should speak to be liked, $b = 1.71$, $SE = 0.70$, $t(184) = 2.44$, $p = .016$. However, even the most extraverted and open people did not think they should speak more than 50% of the time to be liked (Hirschi et al., in press; see Figure 1 above).

Pilot Study A was an online survey conducted with 438 Amazon MTurk participants. All participants again reported the percentage of time they would speak in a 10-minute conversation with a new person of their same age and gender in order to be liked, and then provided basic

demographic information. I found that the more educated participants were, the more they thought they should speak to be liked, $b = 2.37$, $SE = 0.68$, $t(436) = 3.49$, $p < .001$. Further, the higher their socioeconomic status, the more they thought they should speak to be liked, $b = 3.46$, $SE = 0.67$, $t(436) = 5.26$, $p < .001$ (see Figure 2 above). The results of the pilot study in Hirschi et al. (in press) and Pilot Study A suggest that forecasting reticence is a belief people hold about themselves, rather than a general theory about the best way for anyone to be liked in a conversation with someone new. However, further research should be conducted to uncover additional correlates of forecasting reticence and pinpoint its root causes.

Next, Study 2 in Hirschi et al. (in press) showed that people exhibit forecasting reticence when imagining having a structured conversation guided by conversation prompts, but Study 3 in Hirschi et al. (in press) showed that at least in this situation, speaking up is actually a better strategy for being liked. Specifically, Study 2 in Hirschi et al. (in press) was an online survey conducted with 110 undergraduate students. Participants were asked to imagine participating in a lab study with another undergraduate at their university who they had not met before, and imagine that they would have a 7-minute conversation with them in which they would take turns answering questions about themselves. They were told that the conversation would be guided by a computer program, which would indicate who should speak, which conversation prompt they should answer, and for how long. Thus, this computer program would assign them to speak for 30%, 40%, 50%, 60%, or 70% of the total conversation time. Participants then indicated the percentage of time they would prefer to speak if their goal was to be liked, and participants reported wanting to speak for 44.64% of the time on average ($SD = 8.85$); this was again significantly less than 50% of the time, $t(108) = -6.36$, $p < .001$ (Hirschi et al., in press).

However, Study 3 in Hirschi et al. (in press) showed that at least in this situation, speaking up would actually be a better strategy for being liked. That is, Study 3 in Hirschi et al. (in press) was a lab study that followed the exact procedures described in Study 2 in Hirschi et al. (in press) in order to test the accuracy of participants' forecasts in this situation. Specifically, pairs of college students who had never met before or barely knew each other (n = 116) engaged in 7-minute getting-acquainted conversations that varied in the extent to which each person spoke because a computer program guided participants through their conversation as described above and participants were randomly assigned to speak for 30%, 40%, 50%, 60%, or 70% of the time (i.e., if one person spoke for 70% of the time, their partner would have spoken for 30% of the time). I found that participants who spoke more tended to be more well-liked by their partners, $b = 0.68$, $SE = 0.33$, $t(56) = 2.05$, $p = .045$, and this result suggests that participants in Study 2 in Hirschi et al. (in press) were mistaken in thinking that speaking less would be the optimal strategy for being liked in this situation. However, further research should investigate whether these results would replicate in the context of more unstructured conversations.

Toward this end, an unpublished study that I will refer to here as Pilot Study B was an online survey (n = 94) conducted to test whether people would exhibit forecasting reticence even when imagining having a less structured conversation in which both parties could freely choose how much to speak. Specifically, participants were asked to imagine participating in another experiment (over Zoom) with another undergraduate student at their university who they had never met before. In this experiment, they were told they would engage in a 7-minute get-acquainted conversation with the other participant in which they could discuss topics such as why they chose to come to UVA and/or what clubs or extracurricular activities they are involved in or thinking about joining. With this scenario in mind, participants reported the percentage of

time they would prefer to speak in this conversation to be liked, and participants reported wanting to speak an average of 46.16% of the time (*SD* = 10.67); again, this was significantly less than 50%, $t(92) = -3.49$, $p < .001$. These results show that in addition to thinking they should speak less to be liked in structured conversations, people also think they should speak less to be liked in unstructured conversations.

In sum, the pilot study in Hirschi et al. (in press) and Pilot Study A established forecasting reticence and showed that it is correlated with extraversion, openness to new experiences, education level, and socioeconomic status. Study 2 in Hirschi et al. (in press) and Pilot Study B showed that people exhibit forecasting reticence both when imagining structured conversations in which the choice to speak more versus less appears out of their control and when imagining unstructured conversations in which the choice to speak more versus less appears within their control. Finally, Study 3 in Hirschi et al. (in press) showed that at least in the case of more structured conversations, forecasting reticence is inaccurate.

Overview of Studies 1-3

It is clear, though, that several important questions remain unanswered about the correlates, causes, and consequences of forecasting reticence. To address these questions, Study 1 of this dissertation will test potential correlates and causes of forecasting reticence, Study 2 will examine the link between forecasting reticence and perceived partner liking and real conversational behavior, and Study 3 will confirm whether forecasting reticence reflects a hesitance to speak up that is independent of people's hesitance to self-disclose.

Specifically, Study 1 will investigate the extent to which forecasting reticence is caused by conversational insecurities by testing whether people think only *they* should speak less to be liked, and whether people think they should speak less to be liked even in more comfortable

situations in which they might expect to be more confident. In Study 1, participants will also report their levels of social anxiety, shyness, rejection sensitivity, and self-esteem so that additional correlational relationships can be explored. These results should provide more insight into the extent to which a lack of confidence in one's own conversational abilities is related to and/or causes forecasting reticence.

Study 2 will examine the correlation between forecasted speaking time to be liked and perceived partner liking after a real conversation (i.e., another marker of conversational confidence) and real conversational behavior. That is, do people who thought they should speak less (1) think their real-world conversation partners like them less, and/or (2) actually speak less? Finally, Study 3 will provide a causal test of whether forecasting reticence reflects a hesitance to speak up that is independent of people's hesitance to self-disclose. All manipulations, measures, and exclusions will be reported; the Qualtrics programs used to run Studies 1 and 3 and the raw data for Studies 1 and 3 can be found at: https://osf.io/uyqdf/?view_only=f115c7d8134e401fa090b0e4485d2d08

Study 1: Is Forecasting Reticence Caused by Conversational Insecurities?

Study 1 investigated the extent to which forecasting reticence is related to and/or caused by a lack of confidence in one's conversational abilities. As discussed, people are remarkably negative in regard to their own conversational abilities. Further, I have found correlational evidence among Amazon MTurk samples that forecasting reticence is related to individual differences that could be linked conversational confidence including extraversion, openness to new experiences, education level, and socioeconomic status.

However, given that these are indirect markers of conversational confidence, Study 1 first tested whether forecasted speaking time to be liked is related to more direct measures of personal

and conversational confidence, including social anxiety, shyness, rejection sensitivity, and self-esteem. Next, given that initial findings suggest forecasting reticence is a belief people hold about themselves, rather than a general theory they hold about all people, Study 1 also tested whether people think only *they* should speak less to be liked. If people think only *they* should speak less to be liked, it seems likely that this belief stems from the negative self-perceptions people hold about themselves in conversations. However, to further confirm this hypothesis, Study 1 last tested whether people thought they should speak less to be liked even in more comfortable situations in which they might expect to be more confident. If people think they should speak up to be liked in more comfortable situations (but less to be liked in less comfortable situations), this would provide further evidence that forecasting reticence is caused by a lack of conversational confidence.

Method

Participants

Participants were undergraduate students recruited via the University of Virginia Psychology Department participant pool in Fall 2021. I aimed to recruit 200 participants in order to achieve 80% power to detect effects of $d = .20$, and was ultimately able to recruit 237 participants before the study link was disabled and the data were downloaded. Sixty-five percent of the sample identified as female; 34% identified as male; one person identified in another way. Sixty-six percent identified as White/Caucasian; 22% identified as Asian/Asian American; 4% identified as Hispanic/Latinx; 1% identified as Black/African American; 6% identified as multiracial or as another race or ethnicity; 1% did not report their race/ethnicity. No participants were removed from this sample.

Procedure

Participants completed a Qualtrics survey online. After consenting to participate and confirming that they were alone and not distracted, participants completed the survey described below.

Self vs. peer as speaker manipulation. First, in a random order, participants reported how much they thought both (1) they, and (2) another UVA student, should speak in a 10-minute conversation with a new person of their same age and gender in order to be liked. This was a within-participants manipulation ("self" vs. "peer") and the dependent measure was forecasted speaking time to be liked. Forecasted speaking times for both the primary target (i.e., "self" and "peer") and their conversation partner were reported on sliders and the total was required to sum to 100%; this eliminated the possibility of participants taking silences between speaking turns into account when making their estimates. Then, for exploratory purposes, participants reported how important they thought it would be for each target (i.e., themselves and the other UVA student) to open up about themselves during the time they were speaking in order to be liked, using 5-point scales ranging from *1 = Not at all* to *5 = Extremely*.

High vs. low status conversation partner manipulation. Next, in a random order, participants reported the percentage of time they would prefer to speak in a 10-minute conversation with a Professor in the Psychology Department of their same gender (this was the "high status" condition), as well as the percentage of time they would prefer to speak in a 10-minute conversation with a high school student of their same gender (this was the "low status" condition). Then, for exploratory purposes, participants reported how important they thought it would be to open up about themselves when speaking to each target (i.e., the professor and the high school student) using 5-point scales ranging from *1 = Not at all* to *5 = Extremely*.

Note that the "high" and "low" status targets were determined based on feedback from undergraduate research assistants in our lab. However, to ensure this manipulation worked as intended, we included several manipulation check questions after this portion of the survey, including asking participants to rank the following three positions from highest to lowest status: (1) High School Student; (2) Psychology Professor; (3) You (the participant), and asking participants to report how much they thought they would have in common with both the psychology professor and the high school student using 5-point scales ranging from *1 = Nothing at all* to *5 = A great deal.*

Individual differences in conversational confidence. Finally, in a random order, participants completed the Leibowitz Social Anxiety Scale (Liebowitz, 1987), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the Shyness Scale (McCroskey & Richmond, 2013), and the Adult Rejection Sensitivity Questionnaire (Downey et al., 2006). Last, participants reported their demographic information, were thanked and debriefed, and awarded credit for their participation.

Results and Discussion

Forecasting reticence. As predicted and as can be seen in Figures 3 and 4, overall, participants exhibited forecasting reticence. Specifically, when participants were asked to report how much they would prefer to speak in a 10-minute conversation with a new person of their same age and gender when their goal was to come across as likable, participants said they would prefer to speak an average of 44.99% of the time (SD = 11.19). As predicted, this was significantly lower than 50%, $t(236) = -6.89$, $p < .001$.

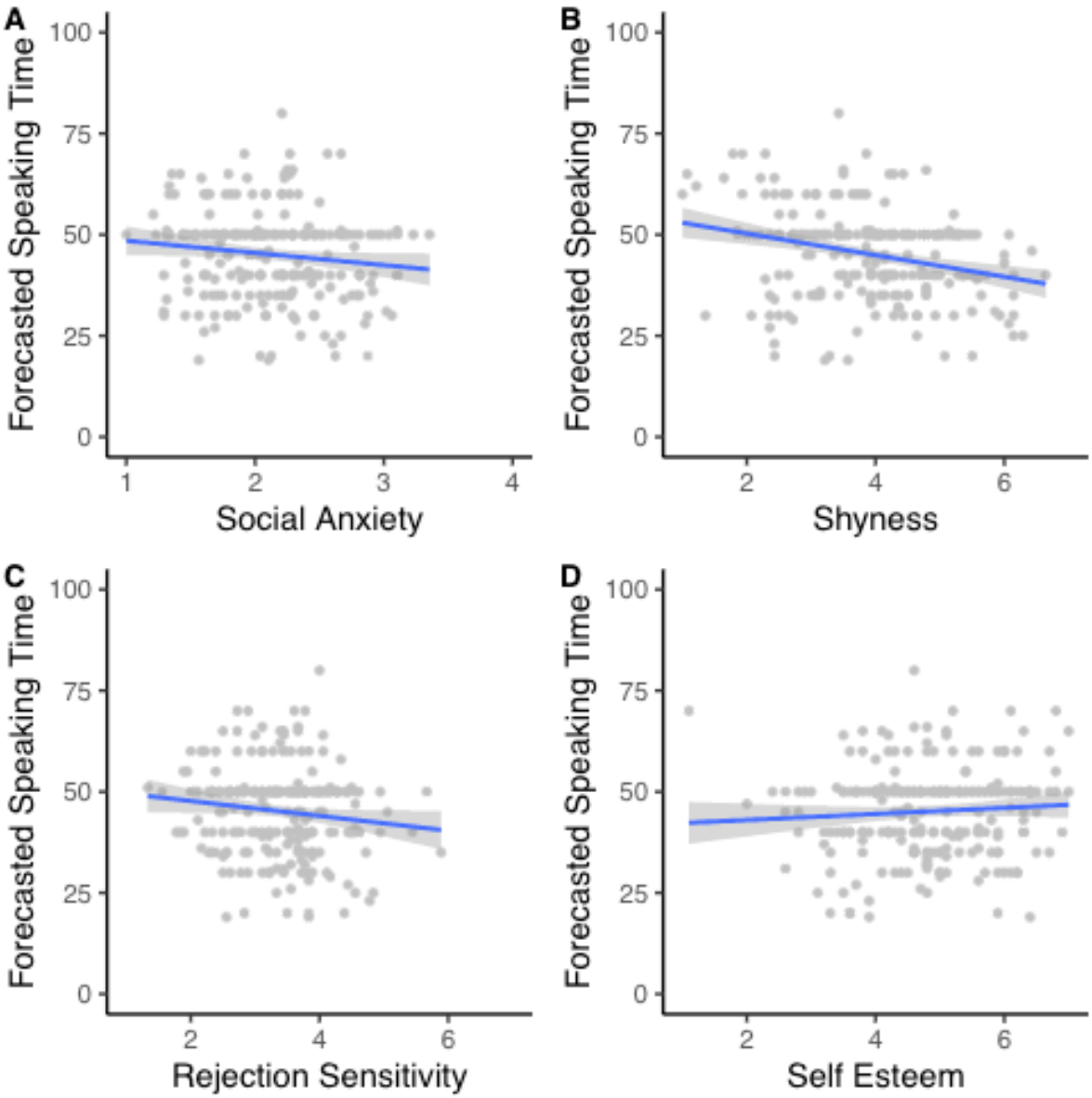
Correlations with individual differences in conversational confidence. I next tested whether forecasted speaking time to be liked was correlated with individual differences that

could be considered more direct markers of conversational confidence—namely, social anxiety, shyness, rejection sensitivity, and self-esteem. As predicted, I found significant negative correlations between how much people thought they should speak to be liked in a 10-minute conversation with a new person of their same age and gender, and social anxiety, $r = -.13$, $t(234) = -1.99$, $p = .047$, shyness, $r = -.28$, $t(232) = -4.46$, $p < .001$, and rejection sensitivity, $r = -.13$, $t(233) = -1.98$, $p = .049$ (see Figure 3). That is, the more socially anxious, shy, and sensitive to rejection participants were, the less they thought they should speak to be liked in a 10-minute conversation with a new person of their same age and gender.

However, I did not find a significant positive correlation between forecasted speaking time to be liked and self-esteem, $r = .07$, $t(234) = 1.11$, $p = .269$ (see Figure 3). This might be because self-esteem is more so about overall confidence, and less specifically about social or conversational confidence. For example, consider that the items used to assess self-esteem are those such as, "I feel that I have a number of good qualities," whereas the other measures are more directly about social and conversational confidence (e.g., "How would you describe your fear or anxiety when speaking up at a meeting?" (social anxiety), "I am a shy person" (shyness), and "How concerned or anxious would you be over whether or not your friend would want to talk to you?" (rejection sensitivity)). Thus, these correlational results support the hypothesis that forecasting reticence is related to people's conversational insecurities in particular, but not personal insecurities more generally. However, given that these findings are only correlational, I next turned to examining the experimental evidence.

Figure 3

Correlations Between Forecasted Speaking Time to Be Liked and Social Anxiety, Shyness, Rejection Sensitivity, and Self-Esteem



Note. The shaded areas represent the 95% CIs around the linear trends.

Self vs. peer as speaker. As predicted, when participants imagined another UVA student engaging in a 10-minute conversation with a new person of their same age and gender with the

goal of coming across as likable, participants said the other UVA student should speak significantly more than participants thought they should speak in the exact same situation, M_{peer} = 47.00 (SD = 11.02) vs. M_{self} = 44.99 (SD = 11.19), $t(236) = -2.76$, $p = .006$; see Figure 4. Further, these results are similar when the data are sub-setted to include only the questions participants saw and answered first, M_{peer} = 46.18 (SD = 11.44) vs. M_{self} = 43.30 (SD = 10.82), $t(233.19) = -1.99$, $p = .048$. This suggests the results are not the product of demand characteristics participants could have experienced when they were asked to directly compare themselves to their peers.

This finding provides further evidence that forecasting reticence arises from people's conversational insecurities, although it suggests that it is not *only* about people's conversational insecurities. If it were, participants would have said their peer should speak about 50% of the time to be liked. Rather, the strategy participants thought their peer should use was to still speak significantly less than 50% of the time, $t(236) = -4.20$, $p < .001$, although, as noted, they did think their peer should speak significantly more than they should speak. This suggests that forecasting reticence likely arises from *both* (a) conversational insecurities, and (b) a belief that other people enjoy talking more so than they actually do. This is a point I will return to in the General Discussion and another avenue to explore in future research.

Next, there was no difference in terms of how important participants thought it would be for themselves versus their peer to open up in the conversation, Ms = 3.12 vs. 3.10 (SDs = 0.80 vs. 0.74), $t(235) = 0.69$, $p = .493$. This finding suggests that forecasting reticence is about speaking time more so than about self-disclosure, because participants thought speaking time should vary according to who was speaking, but did not think the importance of self-disclosure would vary.

High vs. low status conversation partner. Finally, given previous findings showing the relationship between forecasting reticence and education level and socioeconomic status, I predicted that participants would think they should speak significantly more when trying to be liked by "lower status" targets than when trying to be liked by "higher status" targets. And indeed, this was the case. First, note that the status manipulation worked as intended. That is, when asked to rank themselves in comparison to the hypothetical high school student and the hypothetical psychology professor (from highest to lowest status), participants gave the professor an average rank of 1.10 (SD = 0.41), themselves (undergraduate students) an average rank of 2.01 (SD = 0.33), and the hypothetical high school student an average rank of 2.90 (SD = 0.32).

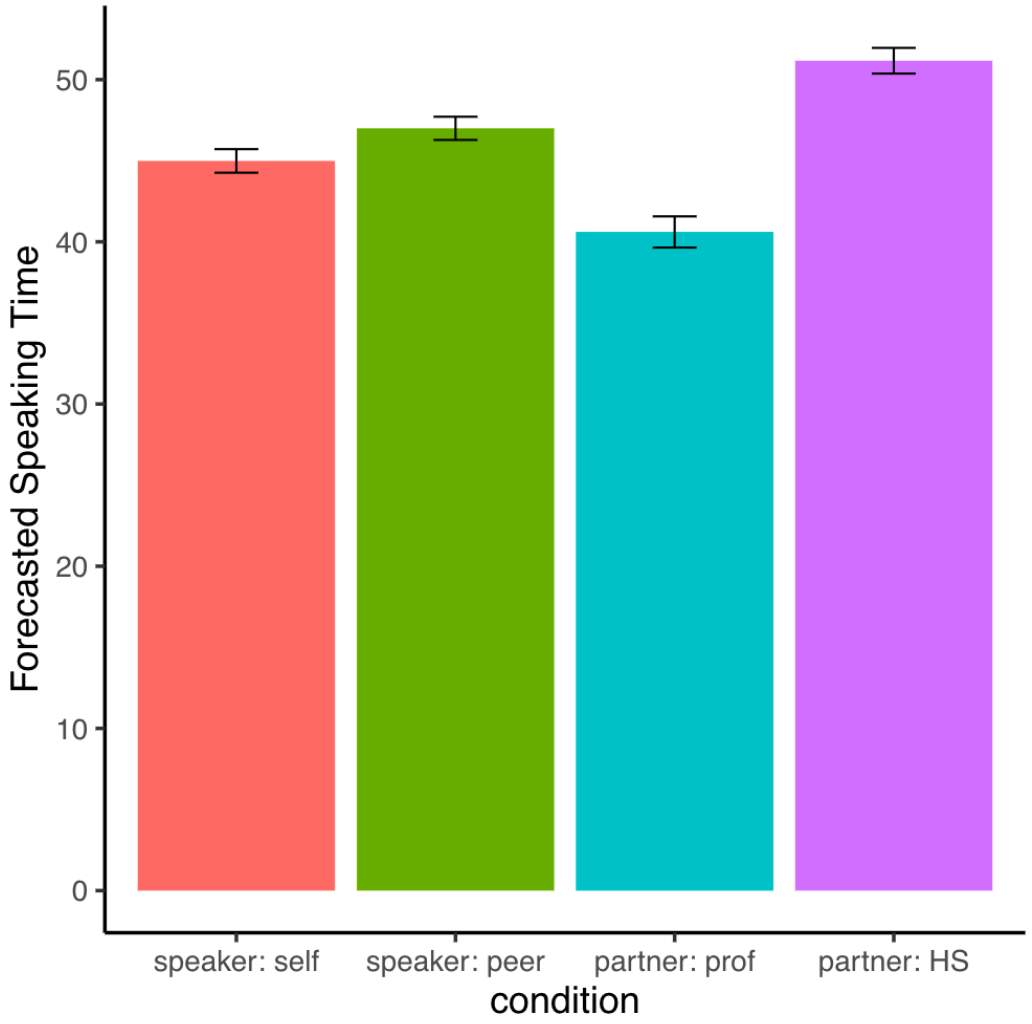
Next, participants thought they should speak significantly more when talking to the hypothetical high school student, M = 51.16, SD = 12.20, than they should when speaking to the hypothetical psychology professor, M = 40.61, SD = 14.80, $t(236) = -8.13$, $p < .001$. This pattern of results again held when sub-setting the data to include only the questions participants saw and answered first, $M_{high\ school}$ = 49.21 (SD = 12.92) vs. $M_{professor}$ = 40.15 (SD = 14.21), $t(222.39) = -5.10$, $p < .001$, which suggests the findings cannot be attributed to demand characteristics.

Further, there was again no difference in terms of how important participants thought it would be to open up when speaking to the high school student versus the professor, Ms = 2.90 vs. 2.87 (SDs = 0.93 vs. 0.99), $t(235) = -0.45$, $p = .652$. This is interesting considering that participants thought they would have much more in common with the high school student, M = 3.60, SD = 0.73, than they would with the professor, M = 2.31, SD = 0.58, $t(235) = -22.63$, $p < .001$, which one might think would prompt participants to want to open up to the high school student more so than the professor.

Comparing all conditions. Finally, another way of analyzing these data is to run a one-way within-subjects ANOVA to examine the differences between all four conditions (self as speaker, peer as speaker, professor as conversation partner, and high school student as conversation partner) with forecasted speaking time to be liked as the dependent variable. As expected, the omnibus test with a Greenhouse-Geisser correction was significant, $F(2.31, 545.27) = 38.69$, $p < .001$, and planned contrasts comparing self vs. peer as speaker, $F(1, 709) = 4.06$, $p = .044$, and professor vs. high school student as conversation partner, $F(1, 709) = 112.15$, $p < .001$, were also significant.

Figure 4

Forecasted Speaking Time to Be Liked by Condition (Self vs. Peer as Speaker and Professor vs. High School Student as Conversation Partner)



Note. The error bars are the standard errors.

These findings provide further evidence that forecasting reticence stems from people's lack of confidence in conversational situations because it shows that people think they should speak up in conversational situations in which they can expect to feel more confident, but hold back in conversational situations in which they might expect to lack confidence. This finding

also dovetails with previous research on how increased power can lower inhibitions (because participants could expect to have more power when speaking to the high school student and less power when speaking to the professor), and this is a point I will return to in the General Discussion. Last, the fact that participants again thought speaking time should vary across conversation partners but self-disclosure should not, provides more evidence that forecasting reticence is about speaking time rather than about self-disclosure. However, I will address this question more directly in Study 3.

Study 2: The Relationships Between Forecasting Reticence and Perceived Liking and Conversational Behavior

As discussed, the liking gap is also thought to arise from a lack of confidence in one's conversational abilities (Boothby et al., 2018; Welker et al., under review). Thus, if forecasted speaking time to be liked is correlated with estimates of conversation partners' liking, this would provide further evidence that forecasting reticence is also related to a lack of conversational confidence. To test this question, I examined the relationship between forecasted speaking time to be liked and perceived partner liking after a real conversation between strangers. Next, I investigated whether forecasting reticence is more than just a theory that people hold about the best way to be likable in a conversation with someone new. That is, is holding this theory associated with real conversational behavior? To test this, I next examined the relationship between people's forecasts of how much they should speak to be likable and how much they actually spoke in a conversation with someone new. Finally, given that these data were collected as part of a larger project on cross-generational conversations, I conducted exploratory analyses to investigate whether forecasted speaking time to be liked differed by participants' age, their partner's age, or an interaction between these two variables.

Method

Participants

Participants were U.K. and U.S. residents recruited via Prolific Academic by Sandstrom and colleagues. These researchers kindly shared their data with me and allowed me to add measures of forecasting reticence. They were able to recruit 214 participants total. Sixty-one percent of the sample identified as female; 37% identified as male; 2% identified in another way. Eighty-two percent identified as White/Caucasian; 57% were from the U.K., and 42% were from the United States. The researchers recruited participants in two age groups: those between the ages of 25 and 30, and those between the ages of 65 and 70. This created a bimodal distribution of age where the average age was 46.83 years (SD = 20.05). No participants were removed from this sample.

Procedure

Participants were run in pairs. After participants responded to a brief online questionnaire individually, each dyad had a 15-minute Zoom conversation, and then participants responded individually to another online questionnaire about their experience in the conversation. Because the primary focus of the study was cross-generational conversations, participants were either between the ages of 25 and 30 or between the ages of 65 and 70, and they were randomly assigned to speak to someone from their same age group or to someone from the other age group. Although participants answered other questions in this study (e.g., about perceived trust and shared interests), the present research focuses only on the below items so as not to overlap with Sandstrom and colleagues' research.

Perceived partner liking. After each conversation, participants reported how much they liked the other person and how much they thought the other person liked them, on scales ranging

from *1 = Not at all* to *7 = Very much*. By agreement with the authors of the study, I limited my analyses to each person's estimate of partner liking (i.e., I did not compute the liking gap).

Forecasting reticence. After each conversation, participants also imagined that in 15 minutes, they would have a conversation with a new person of the same age and gender *as the person they just spoke to*, and their goal in the conversation would be to get their new conversation partner to like them. Then, using sliders that were required to sum to 100%, they reported the percentage of time they would prefer to speak and the percentage of time they would prefer for their partner to speak in order to achieve the goal of coming across as likable. This provided the measure of forecasting reticence (Sandstrom and colleagues kindly added these questions for me).

Conversational behavior. Finally, the conversations were recorded and transcribed automatically through Zoom. To estimate speaking time, I ran the transcriptions through R syntax I developed that estimates speaking time in a transcribed conversation by computing the percentage of total words uttered by each participant. This served as the measure of real conversational behavior (i.e., percentage of time spoken in a dyadic conversation).

Results and Discussion

Forecasting reticence. First, as predicted, participants exhibited forecasting reticence. That is, when participants were asked to imagine having another conversation with a new person of the same age and gender as the person they just spoke to, they said they would prefer to speak an average of 44.10% of the time to be liked (SD = 11.63). This was significantly lower than 50%, $t(213) = -7.42$, $p < .001$, and replicates my previous findings. This is the first study to show forecasting reticence immediately after people had a conversation with a new person (my previous research had only tested this question in situations in which people had not just spoken

to a new person). This finding indicates that people may not learn easily from experience that speaking up is indeed an optimal strategy for being liked; rather, the belief that people should speak less to be liked is quite deep-seated and stable.

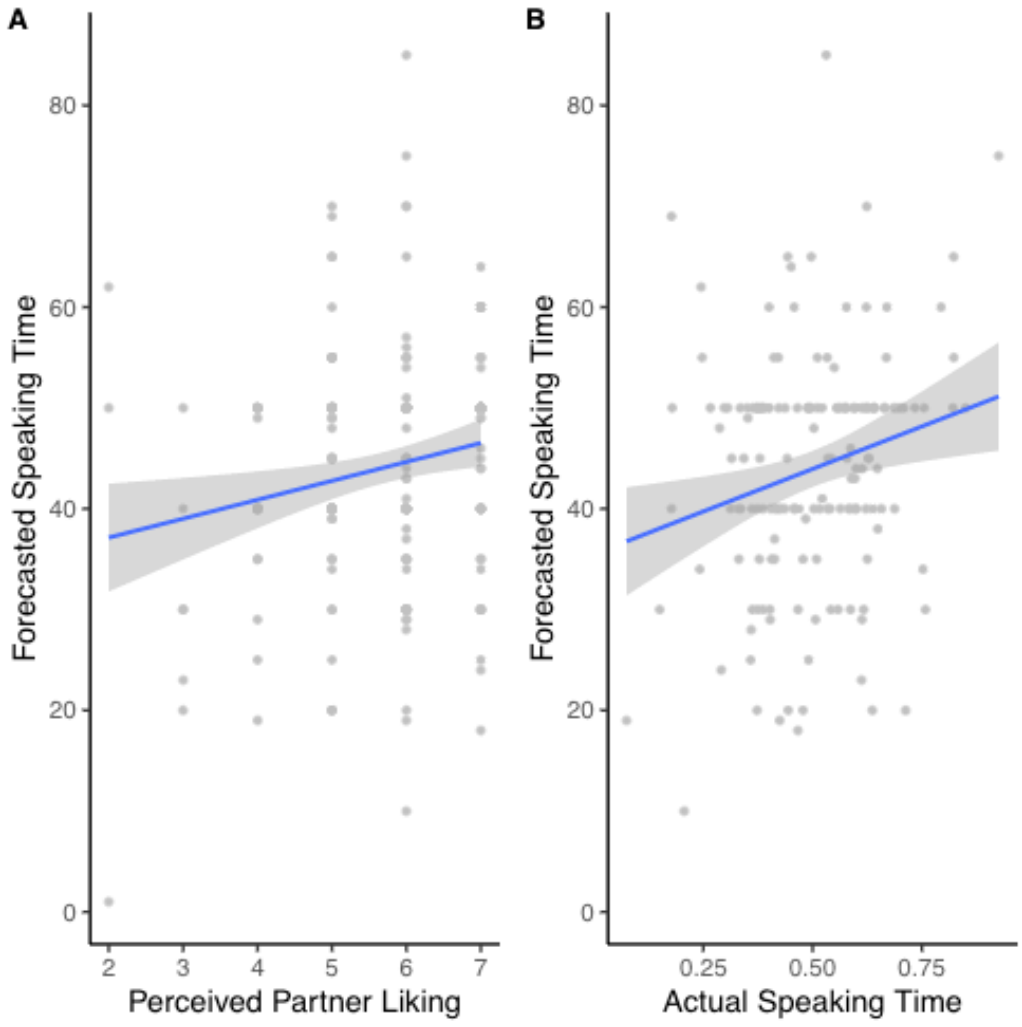
Relationship with perceived partner liking. Second, as predicted, a linear regression model revealed that perceived partner liking in the preceding conversation was a significant predictor of forecasted speaking time to be liked in a hypothetical upcoming conversation, b = 1.88, SE = 0.70, $t(212) = 2.68$, $p = .008$ (see Figure 5). This finding did not differ by participants' age, their partner's age, or an interaction between these two variables, and the results were also unchanged when I attempted to add a random intercept for each dyad because the model resulted in a singular fit. In other words, overall, the less people thought their conversation partner liked them after a real conversation, the less they thought they should speak to be liked in an upcoming conversation. This is consistent with the notion that forecasting reticence is related to a lack of conversational confidence, although a causal direction cannot be determined from this one specific correlational finding.

Relationship with actual speaking time. Next, as predicted, a linear regression model revealed that actual speaking time in the preceding conversation was a significant predictor of forecasted speaking time to be liked in a hypothetical upcoming conversation, b = 16.88, SE = 6.02, $t(160) = 2.80$, $p = .006$ (see Figure 5). This result again did not differ by participants' age, their partner's age, or an interaction between these two variables, and again was unchanged when I attempted to add a random intercept for each dyad because the model resulted in a singular fit. In other words, the less people spoke in their 15-minute Zoom conversation, the less they thought they should speak to be liked in a future conversation. Note here that the transcripts from 26 dyads were not included in this analysis because Sandstrom and colleagues were only able to

retain transcripts from 76% of the conversations in this study. However, I received and coded 100% of those transcripts, making this analysis as complete as possible given the data available.

Figure 5

Correlations Between Forecasted Speaking Time to Be Liked and Perceived Partner Liking and Actual Speaking Time in a Real Conversation



Note. The shaded areas represent the 95% CIs around the linear trends.

Although this finding linking forecasted speaking time to be liked to actual speaking time in a conversation is correlational, it is the first evidence that this pervasive belief people hold is related to real conversational behavior. I believe this is a significant contribution because it indicates that this is more than a belief in people's heads; rather, it is related to real-world behavior. However, future research will need to investigate the causal direction of this relationship. That is, does holding this belief cause people to speak less in conversations with new people, or does speaking less in conversations with new people cause people to hold this belief? Given that I have found forecasting reticence across many samples and contexts, I expect people likely held the belief before their Zoom conversation as well, although it may have been reinforced in this interaction. In other words, although I expect forecasting reticence might impact people's behavior, I also predict that this belief and its corresponding behavior(s) may very well reinforce one another through recursive processes too, and this is an idea I will return to in the General Discussion.

Relationship between perceived partner liking and actual speaking time. Next, in an exploratory analysis, a multilevel model with a random intercept for each dyad revealed that actual speaking time in the conversation was not a significant predictor of perceived partner liking, $b = -0.52$, $SE = 0.45$, $t(80) = -1.15$, $p = .256$. This again did not differ by participants' age, their partner's age, or an interaction between these two variables. This finding is consistent with my previous research showing that although people's theories about how to be likable in conversations are quite stable, they can be disregarded momentarily when real social cues are available (Hirschi et al., in press). I will consider this idea further in the General Discussion.

Testing the full model. Finally, given that perceived partner liking and actual speaking time in the conversation were uncorrelated, I tested a full linear regression model with perceived

partner liking, actual speaking time in the conversation, and their interaction, as the independent variables, and forecasted speaking time to be liked in an upcoming conversation as the dependent variable. Results revealed that the main effect of perceived partner liking was still marginally significant, $b = 1.64$, $SE = 0.83$, $t(158) = 1.97$, $p = .051$, and the main effect of actual speaking time was still statistically significant, $b = 20.75$, $SE = 5.91$, $t(158) = 3.51$, $p < .001$. However, these main effects became qualified by a significant two-way interaction, $b = 16.54$, $SE = 5.31$, $t(158) = 3.11$, $p = .002$ (see Figure 6).

A simple slopes analysis revealed that the relationship between perceived partner liking and forecasted speaking time to be liked was strongest among those who spoke a lot in their conversation (+1 SD), $b = 4.14$, $SE = 1.14$, $t(158) = 3.62$, $p < .001$ (see the green line in Panel A of Figure 6), followed by those who spoke an average amount of time in their conversation, $b = 1.64$, $SE = 0.83$, $t(158) = 1.97$, $p = .051$ (see the yellow line). However, the relationship between perceived partner liking and forecasted speaking time to be liked was not significant among those who spoke less in their conversation (-1 SD), $b = -0.86$, $SE = 1.17$, $t(158) = -0.73$, $p = .465$; see the red line in Panel A of Figure 6.

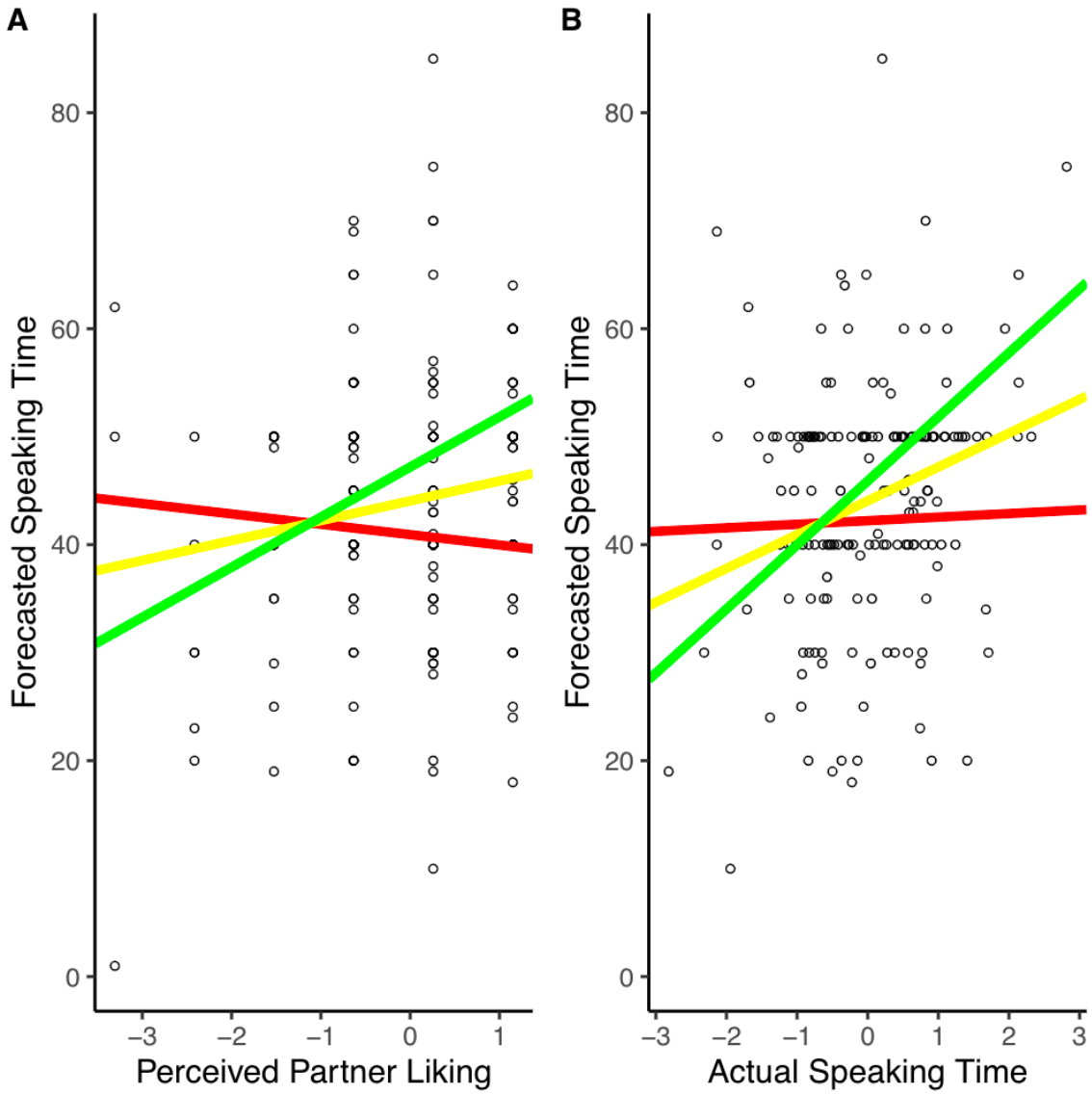
This was an exploratory analysis, but it suggests people who spoke up were more attuned to the relationship between how they came across and how they should behave in their next conversation. That is, the more they thought their partners liked them, the more they thought they should employ a similar strategy to be liked in a future conversation. However, the less they thought their partners liked them, the less they thought they should employ a similar strategy going forward. Results suggest that those who spoke relatively little, on the other hand, were less attuned to the relationship between how they came across and whether or not they should reuse a

similar strategy in their next conversation. I will discuss this finding a bit more in the General Discussion.

Another way to interpret these results is to consider that the relationship between actual speaking time in the conversation and forecasted speaking time to be liked was strongest among those who thought they were the most well-liked (+1 SD), $b = 39.03$, $SE = 8.98$, $t(158) = 3.62$, $p < .001$ (see the green line in Panel B of Figure 6), followed by those who thought they were liked an average amount, $b = 21.56$, $SE = 5.95$, $t(158) = 3.62$, $p < .001$ (see the yellow line). However, the relationship between actual speaking time and forecasted speaking time to be liked was not significant among those who thought they were less well-liked (-1 SD), $b = 4.10$, $SE = 7.29$, $t(158) = 0.56$, $p = .575$; see the red line in Panel B of Figure 6. Again, this suggests that people who thought they were very well-liked thought that the best way to be liked in a future conversation would be to reuse the strategy they used in this particular conversation. However, those who thought they were less well-liked did not necessarily predict that they should reuse their speaking time strategy. Last, note that this model again did not change when I attempted to add a random intercept for each dyad because doing so resulted in a singular fit.

Figure 6

Forecasted Speaking Time to Be Liked by Perceived Partner Liking and Actual Speaking Time in the Conversation



Note. The red line represents -1 SD (for Panel A: for actual speaking time; for Panel B: for perceived partner liking); the yellow line represents the mean; the green line represents +1 SD.

Exploratory analyses examining the effects of age. Finally, given the study design, I tested for additional potential differences by participant age group, partner age group, and an interaction between these two variables. On the one hand, I did not expect to see differences emerge by age group, given that I have not previously found correlations between age and forecasted speaking time to be liked among Amazon MTurk samples. On the other hand, age could be considered a marker of status, and therefore, as seen in Study 1, people might report thinking that they should speak less to be liked by older people, but speak more to be liked by younger people. However, this was not the case. That is, I found no significant effects of participant age, partner age, or an interaction between these two variables on forecasted speaking time to be liked, perceived partner liking, or actual speaking time in the conversation. These results suggest that, in line with previous correlational findings on MTurk, age is not a significant relevant factor when people are determining how much to speak to be liked in a conversation with someone new.

Study 3: Is Forecasting Reticence Independent of People's Hesitance to Self-Disclose?

Finally, Study 3 tested the hypothesis that forecasting reticence is independent of people's hesitance to self-disclose. This was an important question to address because recent research has found people underestimate how much their new conversation partners care about their self-disclosures (Kardas et al., 2021), and it is plausible that this is the root of forecasting reticence. That is, forecasting reticence could reflect a hesitance to disclose too much personal information to strangers, rather than a general hesitance to speak up. Findings from Study 1 showing that participants thought speaking time should vary by speaker (self vs. peer) and conversation partner (professor vs. high school student), but self-disclosure should not, provide initial evidence against this theory, but Study 3 tested the question more directly.

Method

Participants

Participants were undergraduate students recruited via the University of Virginia Psychology Department participant pool in Spring 2022, who were all over the age of 18. I aimed to recruit 280 participants in order to achieve 80% power to detect two small main effects (of speaking time and disclosure) but no interaction between these two variables. After that goal was reached, and before the link was disabled and the data downloaded, 14 additional participants took part; thus, I ultimately collected data from 294 participants. Sixty-eight and a half percent of the sample identified as female; 30% identified as male; 1% identified in another way; one participant did not respond to the question. Sixty-three percent identified as White/Caucasian; 22% identified as Asian/Asian American; 4.5% identified as Black/African American; 1.5% identified as Hispanic/Latinx; 8.5% identified as multiracial or as another race or ethnicity; two participants did not respond to the question. No participants were removed from the sample.

Procedure

Participants completed a Qualtrics survey online. After consenting to participate and confirming that they were alone and not distracted, participants completed the survey described below.

Speaking time and disclosure manipulations. In a random order, participants rated the extent to which they would prefer to use each of the following strategies in order to be liked in a 10-minute conversation with a new person of their same age and gender: (1) spend 45% of the time talking about everyday topics (low speaking time, low disclosure); (2) spend 45% of the time talking about personal topics (low speaking time, high disclosure); (3) spend 55% of the

time talking about everyday topics (high speaking time, low disclosure); and (4) spend 55% of the time talking about personal topics (high speaking time, high disclosure). Specifically, the questions were phrased as shown below (the language was adapted from Study 3 of Kardas et al., 2021) and participants reported their preferences using 6-point scales ranging from *1 = Disagree strongly* to *6 = Agree strongly*.

> In order to get my new conversation partner to like me, I would prefer to:
>
> Talk **[less/more]** than half of the time (say around **[45/55]**% of the time, in which case my partner would talk for **[more/less]** than half of the time).
>
> And, I would spend that time talking about **[everyday/personal]** topics (ones that **[people typically address when they are first getting to know one another - in other words, topics that aren't too personal/ are deeper and more intimate than those most people typically address when they are first getting to know one another]**).

Personality and demographics. Then, participants completed the Ten-Item Personality Inventory (Gosling et al., 2003) for exploratory purposes before they reported demographic information, were thanked and debriefed, and finally, were awarded credit for their participation.

Results and Discussion

Following the procedures of Hirschi et al. (in press), I performed a 2 (speaking time: low vs. high) x 2 (disclosure: low vs. high) repeated measures ANOVA on participants' preference ratings. I expected to find a main effect of speaking time (such that participants would prefer to speak less), and a main effect of disclosure (such that participants would prefer to disclose less), but no interaction between the two variables. This would provide further evidence that forecasting reticence reflects a general hesitance to speak up that is independent of people's

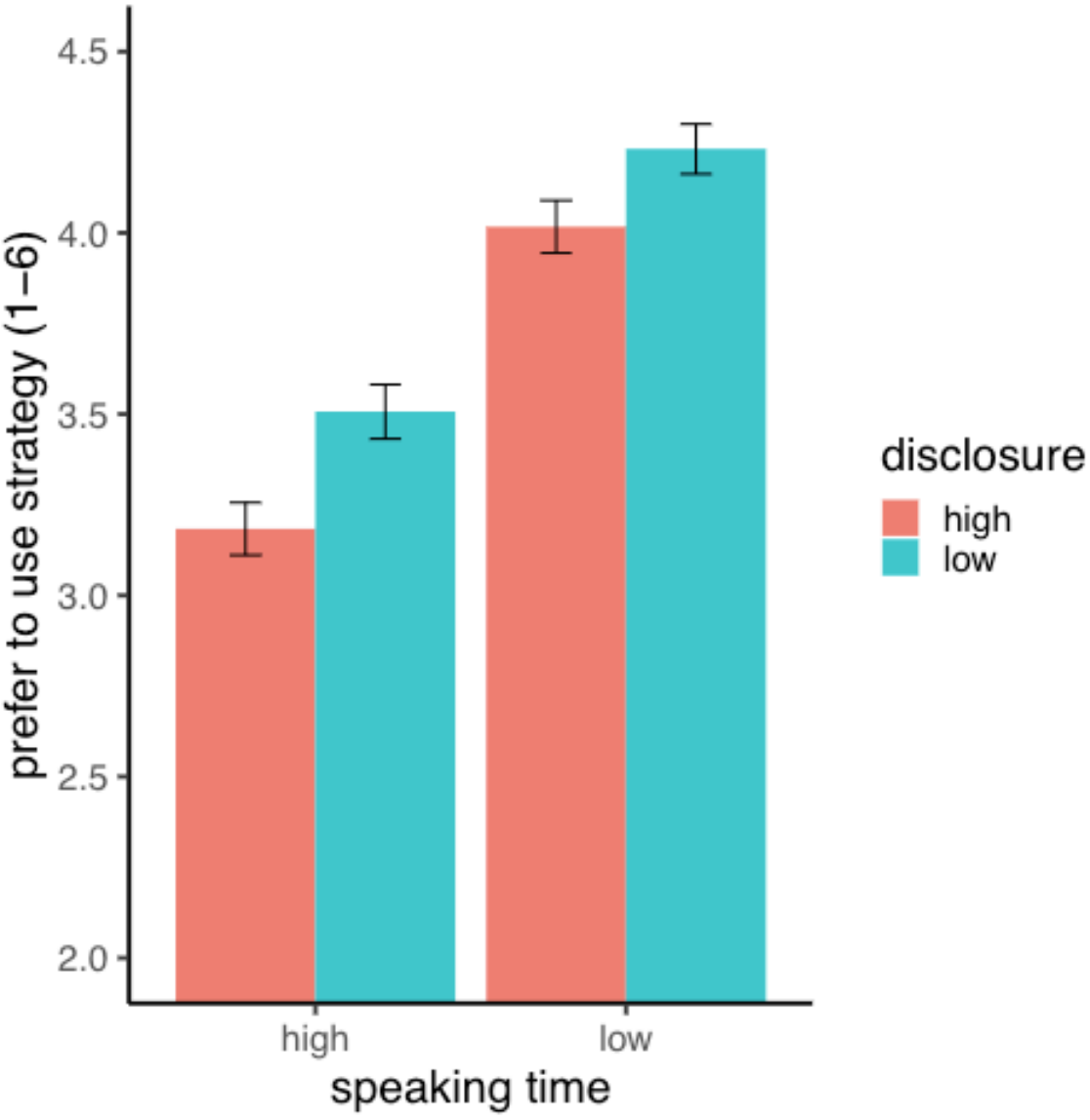
hesitance to self-disclose. And indeed, analyses revealed a significant main effect of speaking time, $F(1, 293) = 90.80$, $p < .001$, and a significant main effect of disclosure, $F(1, 293) = 8.74$, $p = .003$, but no interaction between the two variables, $F(1, 293) = 1.55$, $p = .213$; see Figure 7. Specifically, participants said that overall, if their goal was to come across as likable, they would much rather speak 45% of the time, $M = 4.12$, $SD = 1.22$, than speak 55% of the time, $M = 3.35$, $SD = 1.27$. This is consistent with my previous findings establishing forecasting reticence. Further, as expected and as is consistent with previous findings from Kardas et al. (2021), participants also reported that they would prefer to disclose less rather than more, Ms = 3.87 vs. 3.60 (SDs = 1.28 vs. 1.31).

Note that the pattern of results is the same when sub-setting the data to include only the strategies participants saw and rated first and then running a between-participant analysis. Specifically, a 2 x2 between-subjects ANOVA again revealed a significant main effect of speaking time, $F(1, 290) = 25.18$, $p < .001$, and a significant main effect of disclosure, $F(1, 290) = 6.08$, $p = .014$, but no interaction between the two variables, $F(1, 290) = 0.34$, $p = .563$. This reduces the possibility that results can be attributed to demand characteristics placed on participants.

In sum, as expected, participants said they would both (a) prefer to speak less than 50% of the time, and (b) stick to everyday (vs. more intimate) topics, when their goal was to be liked. Further, as hypothesized, findings suggest that forecasting reticence is independent of people's hesitance to disclose. This helps to rule out the possibility that forecasting reticence arises from people underestimating how much others care about their self-disclosures.

Figure 7

Participants' Preference for Each Strategy by Speaking Time Condition and Disclosure Condition



Note. The error bars are the standard errors.

General Discussion

The present studies found evidence that suggests forecasting reticence arises, at least in part, from people's conversational insecurities, and that it is related to people's real-world conversational behavior. Specifically, Study 1 found that forecasted speaking time to be liked is negatively correlated with social anxiety, shyness, and rejection sensitivity, but that it is not significantly related to self-esteem. This suggests that forecasting reticence is related to social and conversational insecurities in particular, rather than personal insecurities more generally. Next, Study 1 found that people thought one of their peers should speak significantly more than they should to be liked, although they still thought their peer should speak significantly less than 50% of the time. This suggests that people's conversational insecurities contribute to forecasting reticence (because people think they should speak less than their peers), but that there is probably another contributing factor as well—perhaps an incorrect belief that others prefer speaking to listening. Finally, Study 1 found that participants thought they should speak more when trying to be liked by a lower status conversation partner (i.e., a hypothetical high school student), but speak less when trying to be liked by a higher status conversation partner (i.e., a hypothetical professor). This suggests that context matters: In conversational contexts in which people can expect to be more confident, forecasted speaking time to be liked increases, and in contexts in which people can expect to be less confident, it decreases.

Next, Study 2 found that people exhibit forecasting reticence even immediately after having a conversation with a new person, which suggests the belief is stable and not easily corrected through experience. Further, Study 2 found that forecasted speaking time to be liked was positively associated with how much people thought they were liked by their partners in these conversations (which could be considered another measure of conversational confidence),

and also positively associated with actual speaking time in the conversation. That is, the less people spoke in their conversation, the less they thought they should speak to be liked. This is important because it is the first evidence linking this belief to real-world behavior.

Finally, Study 3 found that forecasting reticence is independent of people's hesitance to self-disclose. These results help to rule out the possibility that forecasting reticence arises from people underestimating how much others care about their self-disclosures, and they demonstrate that people do not have extremely nuanced theories about how to be liked (e.g., "I should speak less, but disclose more during the time that I am speaking"). Rather, people mistakenly believe that, all else being equal, the optimal strategy for being liked is to both speak less and disclose less to their new conversation partner.

Across Cultures

Given that the Hirschi et al. (in press) studies, Pilot Studies A and B, and Studies 1-3 are the first experiments to establish this phenomenon, there is plenty of work left to be done to determine how generalizable these findings are across cultures, contexts, and groups. Notably, given that the present samples were predominantly white, and most of the participants lived in the United States or in the U.K., it will be important for future research to determine whether and how this belief varies across cultures (Henrich et al., 2010b, 2010a). For example, theories about how to be likable in conversations with new people might be different in East Asian cultures or other social contexts with lower relational mobility, given that such contexts are associated with less self-disclosure (Schug et al., 2010).

Across Groups

Another important question to investigate is how this phenomenon manifests in interactions between members of different groups. These studies provided initial evidence that it

is not only one's own positionality that matters, but also the positionality of one's conversation partners, and the interaction between those two variables. Specifically, Study 1 found that people thought they should speak more to be liked by individuals who were lower status than them, but speak less to be liked by individuals who were higher status than them. This might occur because the increased power that comes with being higher status is associated with positive affect, automatic information processing, and disinhibited behavior, whereas the reduced power that comes with being lower status is associated with negative affect, controlled information processing, attention to threat, and inhibited social behavior (Keltner et al., 2003). Increased positive affect, automatic information processing, and decreased inhibition would certainly lead people to want to speak more, whereas increased negative affect, controlled information processing, attention to threat, and amplified social inhibition would certainly signal that they should hold back and speak less.

Moreover, I predict the pattern of results from Study 1 might replicate in conversations between people of differing social identities as well, given that some identities are afforded more status and power in society than others (e.g., Cheryan & Markus, 2020; Ridgeway, 2011). For example, given existing power structures in society, Black women might mistakenly predict that they should speak less when talking to white men, and vice versa. If this is the case, research exploring this phenomenon further would have important implications for improving cross-race and cross-gender communication (see Santoro & Markus, 2021).

Throughout Relationships

It is also worth noting that the present studies focused only on how much people think they should speak to be liked in *initial conversations* with new people, which has been called the "surface contact" stage of relationships. However, it is possible that in long-term relationships

(i.e., in the "mutuality" stage of relationships), people will have a better understanding of how much they should speak to be liked by one another (see Finkel et al., 2015). Consider, for example, that in Study 5 of Boothby et al. (2018), researchers found that roommates became more accurate in their estimates of how much they were liked by one another over the course of their first year in college. Similarly, Kardas et al. (2021) found that people were more accurate in their predictions of how awkward and/or enjoyable it would be to disclose to close others (e.g., friends, spouses, and family members) than they were in their predictions of what it would be like to disclose to strangers. In the same way, people might be more accurate in their estimates of how much they should speak to be liked by close others (vs. strangers). However, the question of how forecasting reticence persists and/or evolves throughout the course of relationships is an open question that should certainly be explored in future research.

Additional Strategies to be Liked

Further, although it is clear that many people hold a persistent belief about how much they should speak to be liked, I do not mean to imply that speaking time is the only relevant strategy for being liked in conversations with new people. As other research has highlighted, it is also important to disclose about one's self (Aron et al., 1997; Kardas et al., 2021), use at least some of one's talking time to ask open questions (Huang et al., 2017; Van Quaquebeke & Felps, 2018), respond relatively quickly to one's partner (Templeton et al., 2022), and when not speaking, to listen well (Lloyd et al., 2015; Lopez-Rosenfeld et al., 2015; Weger et al., 2010). There are also strategies conversationalists might not want to use, such as "boomerasking," which refers to asking one's conversation partner a question, letting them answer, and then responding by answering the same question one's self (Brooks, under review).

What is more, it is likely that people hold various lay theories about the extent to which they should employ each of these strategies to be liked, in the same way people tend to endorse a particular theory about how much they should speak to be liked. For example, preliminary results from Study 3 suggest people think they should disclose less to be liked; Huang et al. (2017) found people do not realize that question-asking will increase liking; and Brooks et al. (under review) found that "boomeraskers" believe "boomerasking" leaves a positive impression on their partners. Thus, future research should investigate how other lay theories about how to be liked in conversations (such as, "don't disclose too much," and "no need to ask questions") interact with forecasting reticence.

Additional Cause(s) of Forecasting Reticence

Next, as mentioned, I do not consider the hypothesis that forecasting reticence arises from conversational insecurities to be mutually exclusive with alternative hypotheses about its root cause(s), such as the theory that people overestimate how much others enjoy speaking and mistakenly believe others prefer speaking to listening. Indeed, evidence from Study 1 suggests this is likely to be the case (because people thought their peer should also speak less than 50% of the time to be liked), and pilot data from our lab suggests people also think the best strategy for *flattering* someone is to speak much less than 50% of the time. This preliminary evidence again supports the notion that people overestimate how much others enjoy speaking and therefore believe that the best way to please them is to give them plenty of time to speak. However, this is certainly a question that is ripe to explore further, and future studies should directly test whether people mistakenly believe others prefer speaking to listening, and if so, how this belief is related to forecasting reticence.

Further, it is curious that in Study 2, after a real conversation, speaking time in the conversation was not correlated with participants' estimates of how much they were liked. Given all of the findings discussed, one might reasonably expect that people who spoke less would estimate that they were more well-liked. However, I have seen similar results in previous research. Specifically, in prior work, I found that people think they should use distinct strategies to come across as likable versus interesting in conversations with new people (i.e., speak less to be likable but speak more to be interesting). Thus, when people *imagined* having conversations in which they would speak less (in online studies, in the absence of any real social information), they predicted they would be liked more. Similarly, when they imagined having conversations in which they would speak more, they predicted that they would come across as more interesting. However, after having a real conversation with a new person, they were able to recognize that their partner's impressions of them were not highly differentiated. That is, if they thought they came across as interesting, they were able to recognize that they likely came across as likable, too (Hirschi et al., in press).

Thus, it is not surprising to me that people's general theory about how to be likable in conversations with new people was not as strong of a predictor as their real experience in the conversation when determining how likable they came across. However, that is not to say that their general theory about how to be likable was washed away by their experience in the conversation, as evidenced by the results of Study 2. This is notable: People still hold their general theory about how to be likable in conversations, but they do not use it as a rubric when attempting to discern how likable they were in a specific conversation. Perhaps this provides further support for the notion that people simply hold a general lay theory that others prefer speaking to listening, which they do not necessarily apply to every conversational context they

find themselves in. Once again, though, these ideas should certainly be investigated further in future research.

Beliefs and Behavior

Next, it is interesting that Study 2 found a significant positive relationship between forecasted speaking time to be liked and actual speaking time in a conversation, despite the fact that it was only correlational, because it is the first evidence linking this pervasive belief to real-world behavior. However, as an experimental social psychologist, I believe an important next step is to investigate whether people's behavior in conversations with strangers informs this belief, or whether this belief informs people's behavior. Given that people converse with strangers all the time, and these conversations are unlikely to alter this seemingly stable belief, I hypothesize that holding the belief impacts people's conversational behavior. However, I also suspect that the belief and its corresponding behavior(s) reinforce one another through recursive processes.

Consider that research on cognitive behavioral therapy regards thoughts, feelings, and behaviors as interrelated. For example, the unhelpful thought, "I shouldn't talk too much," is related to feeling anxious in the social situation, which in turn is related to the unhelpful behavior of holding back and speaking less. And in order to disrupt cyclical processes such as this one, cognitive behavioral therapy involves targeting both people's unhelpful thoughts and their unhelpful patterns of behavior. Targeting unhelpful thoughts could look like learning to recognize thought distortions and reevaluate them in light of reality, and targeting unhelpful behaviors could take the form of facing one's fears instead of avoiding them (APA Division 12, 2017).

Future Interventions

Thus, future interventions to disrupt these cyclical processes in conversations could either target people's thoughts or their patterns of behavior. And indeed, recent evidence suggests that changing people's conversational behavior can change their beliefs about their conversational abilities. Specifically, when participants were assigned to an intervention condition in which they were prompted to strike up conversations with strangers over the course of one week, at the end of the week, they reported feeling less pessimistic about the possibility of rejection and more optimistic about their ability to start and maintain conversations with strangers, in comparison to participants in the control group (Sandstrom et al., under review). Further, other research has found that cab riders who typically talk to their drivers (i.e., those who have more experience engaging in these kinds of conversations) are more accurately able to predict that such conversations will be a positive experience than those who do not typically interact with their drivers (Epley & Schroeder, 2014).

Taken together, these findings suggest that attempting to change people's behaviors could help to change their beliefs, which, in turn, could promote more helpful patterns of behavior in the future. This could involve developing interventions to encourage people to speak up more in conversations with new people, and then examining whether their beliefs about how much they should speak to be liked in such conversations change as a result. Exploratory analyses from Study 2 suggest the effectiveness of such interventions could be moderated by how well-liked people think they are when they speak up. That is, results from Study 2 suggest that when people who speak up believe they are more well-liked by their partners, they are more likely to want to speak up again in future conversations. However, when they perceive that they were less well-liked, they are less likely to want to employ a similar strategy again going forward. Thus, it will

be important for behavioral interventions to not only encourage people to speak up, but to also help them recognize that this behavior is likely to be viewed positively by their conversation partners.

Next, as mentioned, another potential method for intervention is to target people's beliefs (i.e., their conversational insecurities). One obvious solution could be to simply inform people that forecasting reticence is a prevalent belief that many people hold; however, it is likely inaccurate because strangers enjoy listening to their new conversation partners speak, and enjoy learning about them more than people realize. However, in an unpublished study, my honors thesis student, Brigitte Lieu and I found that simply having people read about the ubiquity of the liking gap before estimating how much they were liked in a conversational situation had no impact on their estimates of how much they were liked. Perhaps participants did not believe the message when they read it, or perhaps they did not recognize that it applied to them. Regardless, given our previous findings, I am not overly optimistic that an intervention such as this one will work to increase people's estimates of how much they should speak to be liked, but it is certainly worth a try.

Next, another promising method for targeting people's conversational insecurities could take the form of a construal level manipulation in which participants are encouraged to view their conversational contributions from a higher construal level perspective. Given that people tend to view themselves from a more concrete perspective, but view their new conversation partners from a more abstract perspective (Eyal & Epley, 2010), this manipulation could help participants match their conversation partners' perspective on their conversational contributions, and thus become more accurate in their estimates of how much they should speak to be liked. In support of this notion, prior research has found that people who were encouraged to take a higher

construal level perspective predicted that their conversation partners would view their contributions more positively (Hirschi et al., in prep.), and also viewed their own vulnerability in a more positive light (Bruk et al., 2018).

Finally, I want to note that I previously tried to reduce people's conversational insecurities with a brief values-affirmation intervention, which unfortunately did not work (see Creswell et al., 2005). However, I believe the correlational results from Study 1 shed light onto why this intervention method may have failed. Specifically, values-affirmation interventions are designed to increase self-confidence more generally, but the correlational results from Study 1 suggest that forecasting reticence is more so related to conversational insecurities, in particular, than it is to personal insecurities more generally. Thus, in future research, I hope to test a more specific "conversational confidence" intervention, in which participants spend five minutes writing about a past conversation that went particularly well. I expect this might bolster their conversational confidence, at least momentarily, which could in turn increase their estimates of how much they should speak to be liked in a conversation with someone new. I believe future research should test all of these potential intervention methods (and perhaps others as well) to determine which are the most promising, with the ultimate goal of (eventually) helping to foster more positive patterns of behavior in real-world conversations.

Concluding Remarks

In sum, the present studies provide evidence that forecasting reticence arises, at least in part, from people's conversational insecurities, and that it is related to people's behavior in real-world conversations. Future research should seek to answer questions about how forecasting reticence varies across cultures, manifests in intergroup interactions, evolves throughout the course of relationships, and interacts with other lay theories about how to be likable in

conversations. Further, future research should investigate the extent to which additional factors contribute to forecasting reticence. For example, it seems likely that people hold a vague lay theory that other people simply prefer speaking to listening, and that this belief also contributes to forecasting reticence. Finally, future research should seek to develop interventions to redirect this belief in order to promote speaking up in conversations with new people, given that much research to date suggests this is indeed the optimal strategy for being liked—contrary to what everyone seems to believe.

References

Altman, I., & Taylor, D. A. (1973). *Social penetration: The development of interpersonal relationships.* Holt, Rinehart & Winston.

APA Division 12. (2017). *What is Cognitive Behavioral Therapy?* http://www.div12.org/sites/default/files/WhatIsCognitiveBehaviorTherapy.pdf

Aron, A., Melinat, E., Aron, E. N., Vallone, R. D., & Bator, R. J. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, *23*(4), 363–377. https://doi.org/10.1177/0146167297234003

Beck, A. T., & Clark, D. A. (1988). Anxiety and depression: An information processing perspective. *Anxiety Research*, *1*(1), 23–36. https://doi.org/10.1080/10615808808248218

Beck, A. T., Emery, G., & Greenberg, R. L. (1985). *Anxiety disorders and phobias: A cognitive perspective*. Basic Books.

Boothby, E. J., Cooney, G., Sandstrom, G. M., & Clark, M. S. (2018). The Liking Gap in conversations: Do people like us more than we think? *Psychological Science*, *29*(11), 1742–1756. https://doi.org/10.1177/0956797618783714

Brooks, A. W. (under review). *Boomerasking: Answering your own questions*.

Bruk, A., Scholl, S. G., & Bless, H. (2018). Beautiful mess effect: Self–other differences in evaluation of showing vulnerability. *Journal of Personality and Social Psychology*, *115*(2), 192–205. https://doi.org/10.1037/pspa0000120

Carlson, E., & Kenny, D. A. (2012). Meta-accuracy: Do we know how others see us? In S. Vazire & T. D. Wilson (Eds.), *Handbook of self-knowledge* (pp. 242–257). Guilford Press.

Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: The perception–behavior link and social interaction. *Journal of Personality and Social Psychology*, *76*(6), 893–910. https://doi.org/10.1037/0022-3514.76.6.893

Cheryan, S., & Markus, H. R. (2020). Masculine defaults: Identifying and mitigating hidden cultural biases. *Psychological Review*, *127*(6), 1022–1052. https://doi.org/10.1037/rev0000209

Collins, N. L., & Miller, L. C. (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, *116*(3), 457–475. https://doi.org/10.1037/0033-2909.116.3.457

Cooney, G. (2021, July 21). *Conversation turn duration* [Personal communication].

Cooney, G., Gilbert, D. T., & Wilson, T. D. (2014). The unforeseen costs of extraordinary experience. *Psychological Science*, *25*(12), 2259–2265. https://doi.org/10.1177/0956797614551372

Cooney, G., Gilbert, D. T., & Wilson, T. D. (2017). The novelty penalty: Why do people like talking about new experiences but hearing about old ones? *Psychological Science*, *28*(3), 380–394. https://doi.org/10.1177/0956797616685870

Creswell, J. D., Welch, W. T., Taylor, S. E., Sherman, D. K., Gruenewald, T. L., & Mann, T. (2005). Affirmation of personal values buffers neuroendocrine and psychological stress responses. *Psychological Science*, *16*(11), 846–851. https://doi.org/10.1111/j.1467-9280.2005.01624.x

DeYoung, C. G., Peterson, J. B., & Higgins, D. M. (2002). Higher-order factors of the Big Five predict conformity: Are there neuroses of health? *Personality and Individual Differences*, *33*(4), 533–552. https://doi.org/10.1016/S0191-8869(01)00171-4

Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of Personality and Social Psychology*, *73*(6), 1246–1256. https://doi.org/10.1037/0022-3514.73.6.1246

Downey, G., Berenson, K. R., & Kang, J. (2006). The adult rejection sensitivity questionnaire (ARSQ). *Columbia University*.

Epley, N., & Gilovich, T. (2006). The anchoring-and-adjustment heuristic: Why the adjustments are insufficient. *Psychological Science*, *17*(4), 311–318. https://doi.org/10.1111/j.1467-9280.2006.01704.x

Epley, N., Keysar, B., Van Boven, L., & Gilovich, T. (2004). Perspective taking as egocentric anchoring and adjustment. *Journal of Personality and Social Psychology*, *87*(3), 327–339. https://doi.org/10.1037/0022-3514.87.3.327

Epley, N., & Schroeder, J. (2014). Mistakenly seeking solitude. *Journal of Experimental Psychology: General*, *143*(5), 1980–1999. https://doi.org/10.1037/a0037323

Eyal, T., & Epley, N. (2010). How to seem telepathic: Enabling mind reading by matching construal. *Psychological Science*, *21*(5), 700–705. https://doi.org/10.1177/0956797610367754

Feist, G. J. (2019). Creativity and the Big Two model of personality: Plasticity and stability. *Current Opinion in Behavioral Sciences*, *27*, 31–35. https://doi.org/10.1016/j.cobeha.2018.07.005

Finkel, E. J., Norton, M. I., Reis, H. T., Ariely, D., Caprariello, P. A., Eastwick, P. W., Frost, J. H., & Maniaci, M. R. (2015). When does familiarity promote versus undermine interpersonal attraction? A proposed integrative model from erstwhile adversaries. *Perspectives on Psychological Science*, *10*(1), 3–19. https://doi.org/10.1177/1745691614561682

Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, *37*(6), 504–528. https://doi.org/10.1016/S0092-6566(03)00046-1

Harvard Medical School. (2007). *National Comorbidity Survey (NCS)*. https://www.hcp.med.harvard.edu/ncs/index.php

Henrich, J., Heine, S. J., & Norenzayan, A. (2010a). Most people are not WEIRD. *Nature*, *466*(7302), 29. https://doi.org/10.1038/466029a

Henrich, J., Heine, S. J., & Norenzayan, A. (2010b). The weirdest people in the world? *Behavioral and Brain Sciences*, *33*(2–3), 61–83. https://doi.org/10.1017/S0140525X0999152X

Hirschi, Q., Wilson, T. D., & Gilbert, D. T. (in press). *Speak up! Mistaken beliefs about how much to talk in conversations*.

Hirschi, Q., Wilson, T. D., & Gilbert, D. T. (in prep.). *Understanding the Liking Gap in conversations: When people are blind to how interesting others find them*.

Huang, K., Yeomans, M., Brooks, A. W., Minson, J., & Gino, F. (2017). It doesn't hurt to ask: Question-asking increases liking. *Journal of Personality and Social Psychology*, *113*(3), 430–452. https://doi.org/10.1037/pspi0000097

Kardas, M., Kumar, A., & Epley, N. (2021). Overly shallow?: Miscalibrated expectations create a barrier to deeper conversation. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/pspa0000281

Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, *110*(2), 265–284. https://doi.org/10.1037/0033-295X.110.2.265

Kenny, D. A., & DePaulo, B. M. (1993). Do people know how others view them? An empirical and theoretical account. *Psychological Bulletin*, *114*(1), 145–161. https://doi.org/10.1037/0033-2909.114.1.145

Leary, M. R., Rogers, P. A., Canfield, R. W., & Coe, C. (1986). Boredom in interpersonal encounters: Antecedents and social implications. *Journal of Personality and Social Psychology*, *51*(5), 968–975. https://doi.org/10.1037/0022-3514.51.5.968

Liberman, N., & Trope, Y. (2008). The psychology of transcending the here and now. *Science*, *322*(5905), 1201–1205. https://doi.org/10.1126/science.1161958

Liebowitz, M. R. (1987). Liebowitz social anxiety scale. *Modern Problems of Pharmapsychiatry*, *22*, 141–173.

Lloyd, K. J., Boer, D., Kluger, A. N., & Voelpel, S. C. (2015). Building trust and feeling well: Examining intraindividual and interpersonal outcomes and underlying mechanisms of listening. *International Journal of Listening*, *29*(1), 12–29. https://doi.org/10.1080/10904018.2014.928211

Lopez-Rosenfeld, M., Calero, C. I., Fernandez Slezak, D., Garbulsky, G., Bergman, M., Trevisan, M., & Sigman, M. (2015). Neglect in human communication: Quantifying the cost of cell-phone interruptions in face to face dialogs. *PloS One*, *10*(6), e0125772. https://doi.org/10.1371/journal.pone.0125772

Mastroianni, A. M., Cooney, G., Boothby, E. J., & Reece, A. G. (2021). The liking gap in groups and teams. *Organizational Behavior and Human Decision Processes*. https://doi.org/10.1016/j.obhdp.2020.10.013

Mastroianni, A. M., Gilbert, D. T., Cooney, G., & Wilson, T. D. (2021). Do conversations end when people want them to? *Proceedings of the National Academy of Sciences*. https://doi.org/10.1073/pnas.2011809118

McCroskey, J. C., & Richmond, V. P. (2013). *Shyness Scale (SS). Measurement Instrument Database for the Social Science*.

Ridgeway, C. L. (2011). *Framed by gender: How gender inequality persists in the modern world*. Oxford University Press.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.

Sandstrom, G. M., Boothby, E. J., & Cooney, G. (under review). *Talking to strangers: A week-long intervention reduces barriers to social connection*.

Sandstrom, G. M., Tseng, V. W.-S., Costa, J., Okeke, F., Choudhury, T., & Dunn, E. W. (2016). Talking less during social interactions predicts enjoyment: A mobile sensing pilot study. *PloS One*, *11*(7), e0158834. https://doi.org/10.1371/journal.pone.0158834

Santoro, E., & Markus, H. R. (2021). *How do you listen?: The relationship between how men listen and women's power and respect in the US*.

Schug, J., Yuki, M., & Maddux, W. (2010). Relational mobility explains between- and within-culture differences in self-disclosure to close friends. *Psychological Science*, *21*(10), 1471–1478. https://doi.org/10.1177/0956797610382786

Sedikides, C., Campbell, W. K., Reader, G. D., & Elliot, A. J. (1999). The relationship closeness induction task. *Representative Research in Social Psychology*, *23*, 1–4.

Sprecher, S., Treger, S., & Wondra, J. D. (2012). Effects of self-disclosure role on liking, closeness, and other impressions in get-acquainted interactions. *Journal of Social and Personal Relationships*, *30*(4), 497–514. https://doi.org/10.1177/0265407512459033

Sprecher, S., Treger, S., Wondra, J. D., Hilaire, N., & Wallpe, K. (2013). Taking turns: Reciprocal self-disclosure promotes liking in initial interactions. *Journal of Experimental Social Psychology*, *49*(5), 860–866. https://doi.org/10.1016/j.jesp.2013.03.017

Stopa, L., & Clark, D. M. (2000). Social phobia and interpretation of social events. *Behaviour Research and Therapy*, *38*(3), 273–283. https://doi.org/10.1016/S0005-7967(99)00043-1

Taylor, D. A. (1979). Motivational bases. *Self-Disclosure: Origins, Patterns, and Implications of Openness in Interpersonal Relationships*, 110–151.

Templeton, E. M., Chang, L. J., Reynolds, E. A., LeBeaumont, M. D. C., & Wheatley, T. (2022). Fast response times signal social connection in conversation. *Proceedings of the National Academy of Sciences*, *119*(4). https://doi.org/10.1073/pnas.2116915119

Van Quaquebeke, N., & Felps, W. (2018). Respectful inquiry: A motivational account of leading through asking questions and listening. *Academy of Management Review*, *43*(1), 5–27. https://doi.org/10.5465/amr.2014.0537

Weger, H., Castle, G. R., & Emmett, M. C. (2010). Active listening in peer interviews: The influence of message paraphrasing on perceptions of listening skill. *The Intl. Journal of Listening*, *24*(1), 34–49. https://doi.org/10.1080/10904010903466311

Welker, C., Walker, J. T., Boothby, E. J., & Gilovich, T. (under review). *Pessimistic assessments of ability in everyday conversation*.

Wilson, J. R., Kuehn, R. E., & Beach, F. A. (1963). Modification in the sexual behavior of male rats produced by changing the stimulus female. *Journal of Comparative and Physiological Psychology*, *56*(3), 636–644. https://doi.org/10.1037/h0042469

Wolf, W., Nafe, A., & Tomasello, M. (2021). The development of the Liking Gap: Children older than 5 years think that partners evaluate them less positively than they evaluate

their partners. *Psychological Science*, *32*(5), 789–798. https://doi.org/10.1177/0956797620980754

Worthy, M., Gary, A. L., & Kahn, G. M. (1969). Self-disclosure as an exchange process. *Journal of Personality and Social Psychology*, *13*(1), 59–63. https://doi.org/10.1037/h0027990