PNAS RESEARCH ARTICLE | PSYCHOLOGICAL AND COGNITIVE SCIENCES

Talking with strangers is surprisingly informative

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Edited by Timothy Wilson, University of Virginia, Charlottesville, VA; received April 25, 2022; accepted June 30, 2022

A meaningful amount of people's knowledge comes from their conversations with others. The amount people expect to learn predicts their interest in having a conversation (pretests 1 and 2), suggesting that the presumed information value of conversations guides decisions of whom to talk with. The results of seven experiments, however, suggest that people may systematically underestimate the informational benefit of conversation, creating a barrier to talking with—and hence learning from—others in daily life. Participants who were asked to talk with another person expected to learn significantly less from the conversation than they actually reported learning afterward, regardless of whether they had conversation prompts and whether they had the goal to learn (experiments 1 and 2). Undervaluing conversation does not stem from having systematically poor opinions of how much others know (experiment 3) but is instead related to the inherent uncertainty involved in conversation itself. Consequently, people underestimate learning to a lesser extent when uncertainty is reduced, as in a nonsocial context (surfing the web, experiment 4); when talking to an acquainted conversation partner (experiment 5); and after knowing the content of the conversation (experiment 6). Underestimating learning in conversation is distinct from underestimating other positive qualities in conversation, such as enjoyment (experiment 7). Misunderstanding how much can be learned in conversation could keep people from learning from others in daily life.

conversation | learning | miscalibration

Significance

Conversation can be a useful source of learning about practically any topic. Information exchanged through conversation is central to culture and society, as talking with others communicates norms, creates shared understanding, conveys morality, shares knowledge, provides different perspectives, and more. Yet we find that people systematically undervalue what they might learn in conversation, anticipating that they will learn less than they actually do. This miscalibration stems from the inherent uncertainty of conversations, where it can be difficult to even conceive of what one might learn before one learns it. Holding miscalibrated expectations about the information value of conversation may discourage people from engaging in them more often, creating a potentially misplaced barrier to learning more from others.

Everyone you will ever meet knows something you don't.

William "Bill" Nye, American science communicator

Everyday life offers many opportunities to learn from others. The fellow commuter on the bus, the shopper in line behind you, your office colleague—"everyone," as Nye notes—has learned something unique through life experience that could be shared with someone else through conversation. Both philosophers and behavioral scientists have noted people's strong motivation to learn new information, both for its extrinsic value of learning new skills and making better decisions and for intrinsic value as a desired outcome in itself (1–4). However, we suggest that people fail to fully appreciate just how much they are likely to learn from having a conversation with another person, thereby undervaluing the informational benefit of conversation. Failing to fully appreciate how much will be learned in conversation could create a barrier to learning from others in daily life.

Engaging with others in conversation has well-documented hedonic consequences of increasing a person's mood (5–7), well-being (8, 9), and liking for one's conversation partner (10). These hedonic consequences can be unexpectedly large: people tend to underestimate how much they'll enjoy their conversation (5), feel connected to their conversation partner (11), and be liked by their conversation partner (10).

Perhaps even more important for culture and society, conversations also have informational worth, serving as valuable sources of learning. Learning is a core element of human survival and flourishing, driven by a strong sense of curiosity that values learning for both its extrinsic and intrinsic rewards (1). Every person one encounters has accumulated a wealth of information based on idiosyncratic life experiences. Conversations can therefore enable people to learn autobiographical information, understand another's perspective, and acquire advice or instruction on any imaginable topic. More broadly, conversation spreads information across people about everything from employment opportunities to moral rules to cultural norms and conventions (12–14). Anything known to a person could theoretically be shared through conversation, explaining why the ability to communicate and learn from others through conversation is a key component of humans' success as a species (15).

However, correctly anticipating exactly how much one is likely to learn in conversation with a stranger, and hence how valuable a conversation might be, is extremely challenging because so many aspects of the conversation are unknown. People have diverse backgrounds, experiences, knowledge, skills, beliefs, and attitudes that cannot

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Author contributions: S.A., K.W., and N.E. designed research; S.A. performed research; S.A. analyzed data; and S.A., K.W., and N.E. wrote the paper.

The authors declare no competing interest.

This article is a PNAS Direct Submission.

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This article contains supporting information online at http://www.pnas.org/lookup/suppl/doi:10.1073/pnas.2206992119/-/DCSupplemental.

Published August 16, 2022.

be known a priori. Casual conversations are typically unstructured and open ended, making it hard to know what might be discussed or what another person might reveal. That others' minds are both vast and invisible, and that conversations can cover any topic with unexpected twists and turns, make it inherently difficult to even conceive of what one might learn before one learns it. Learning in conversation is therefore different from other opportunities for learning, such as from reading a book whose contents are previewed by its title, author, or synopsis, or from surfing the web, where a user determines the search content and hence is better able to anticipate what would be learned. We hypothesize that the inherent uncertainty of conversation makes it difficult to know what one will learn and that this is used as a cue for how much one will learn, thereby partly explaining why people systematically underestimate how much they will learn in conversation.

We suggest that underestimating learning in conversation matters because it guides decisions to engage in a conversation or to avoid it. Two pretests support this hypothesis. In both, participants imagined having the opportunity to start a conversation with a nearby stranger in four situations (on a flight from Chicago to New York City, before a lecture at a university, at a sporting event, or inside an art museum). For each scenario, participants reported how much they expected to learn from having a conversation with this person, how interesting they expected this person would be, and how likely they would be to start a conversation with this person (*SI Appendix*). Participants' reported likelihood of starting the conversation was positively correlated with the amount they expected to learn ($rs_{rm} = 0.35$ and 0.56, Ps < 0.001). These correlations remained positive even after controlling for how much participants expected to like their conversation partner, how interesting they expected their conversation partner to be, and the perceived likelihood that their partner would be interested in talking to them (Ps < 0.001).

We tested our primary hypothesis that people underestimate learning in conversation with strangers by comparing people's expectations about learning from a conversation with their actual experiences of learning from the same conversation, finding that people systematically underestimated learning. This effect was robust, emerging regardless of the type of conversation prompts people used, whether they used prompts or not (experiments 1 and 2), and whether they were instructed to try to learn or not (experiment 2). Providing convergent support for the gap between expectations and experiences, third-party raters corroborated participants' reported learning (experiment 3). We hypothesized that people underestimate learning in conversation at least partly because of its inherent uncertainty. Consistent with this mechanism, people were less miscalibrated about learning in contexts with more certainty, such as surfing the web (experiment 4), talking to a closely acquainted conversation partner (experiment 5), and knowing the content of the conversation itself (experiment 6). Other plausible explanations, such as having overly negative views of what others might know (experiment 3) or confounding learning with the overall enjoyment of conversation (experiment 7), did not account for miscalibrated expectations.

Expected vs. Experienced Learning in Conversations

In a typical experiment, each participant had a 10-min conversation with a randomly matched, unacquainted participant. Before the conversation, participants read about general features of the conversation (e.g., how long it would be and that their conversation partner was recruited in the same way they were) and then reported how much they expected to learn (e.g., "How much do you think you'll learn from the conversation?" and "How much do you think you'll learn about the other person?"; see *Method and Materials*). After the conversation, participants reported how much they had actually learned (e.g., "How much did you learn from the conversation?" and "How much did you learn about the other person?"). In most experiments, participants answered additional questions about hedonic and social aspects of the conversation to replicate existing findings (e.g., how much they enjoyed the conversation, how much they liked their conversation partner; *SI Appendix* has more information). We discuss these for experiment 7 and in *Discussion* to differentiate learning from other conversation outcomes.

In experiment 1, we recruited visitors to public parks in Chicago as participants. As a robustness check, each randomly matched pair received either conversation prompts perceived to be relatively mundane in pretesting (e.g., "Tell me about what you do for a living") or to be relatively interesting (e.g., "Tell me about an interesting person you know or whom you've met"). As shown in Fig. 1, participants learned more than they expected from the conversation across the two learning measures [in general, $b = 1.14$, $t(206) = 8.20$, $P < 0.001$; other person, $b = 1.22$, $t(206) = 9.30$, $P < 0.001$], regardless of the prompts they received ($|b|$s < 0.25, $|t|$s < 0.87, Ps > 0.38).

Experiment 2 suggests that underestimating learning is robust, occurring whether people are explicitly trying to learn in their conversation or not. In this experiment, we randomly instructed participants to try to learn something from their conversation partner (learning goal) or to simply have a pleasant conversation (control goal). The conversations were not directed by any prompts, allowing us to also test the robustness of experiment 1 in unguided conversations. As shown in Fig. 1, participants again learned more from their conversations than they expected [in general ($M_{pre} = 4.66$, SD = 1.75 vs. $M_{post} = 6.12$, SD = 2.09), $b = 1.45$, $t(198) = 10.68$, $P < 0.001$; other person ($M_{pre} = 5.36$, SD = 1.78 vs. $M_{post} = 6.71$, SD = 1.71), $b = 1.35$, $t(198) = 9.77$, $P < 0.001$], regardless of whether they were explicitly instructed to try to learn or not ($|b|$s < 0.29, $|t|$s < 0.91, Ps > 0.36) (additional analyses conducted at the level of the pair yielded similar results; *SI Appendix*).

Experiment 3 used additional measures of learning and tested one explanation for our results. We measured learning in three different ways. First, in addition to asking about learning in general and learning about the conversation partner, we also asked about learning useful information. As shown in Fig. 2, participants underestimated how much they would learn in all three categories [other person, $b = 1.07$, $t(205) = 8.47$, $P < 0.001$; in general, $b = 0.43$, $t(205) = 2.65$, $P = 0.009$; useful information, $b = 1.28$, $t(205) = 8.61$, $P < 0.001$]. Underestimating learning was not restricted to a single type of information and included what participants themselves reported to be useful information.

Second, we asked participants to write what they expected to learn and then what they actually learned, which two independent coders then rated on abstractness/concreteness. If people genuinely learn information in conversation, rather than simply reporting learning information, then their text descriptions should be more concrete and detailed after the conversation than before the conversation. Indeed, participants' descriptions of what they reported actually learning were more concrete ($M = 4.23$, SD = 1.41) than what they expected to learn [$M = 2.55$, SD = 1.02; $b = -1.68$, $t(204) = -17.3$, $P < 0.001$].

Third, we recruited a separate set of third-person raters whom we randomly assigned to read participants' descriptions

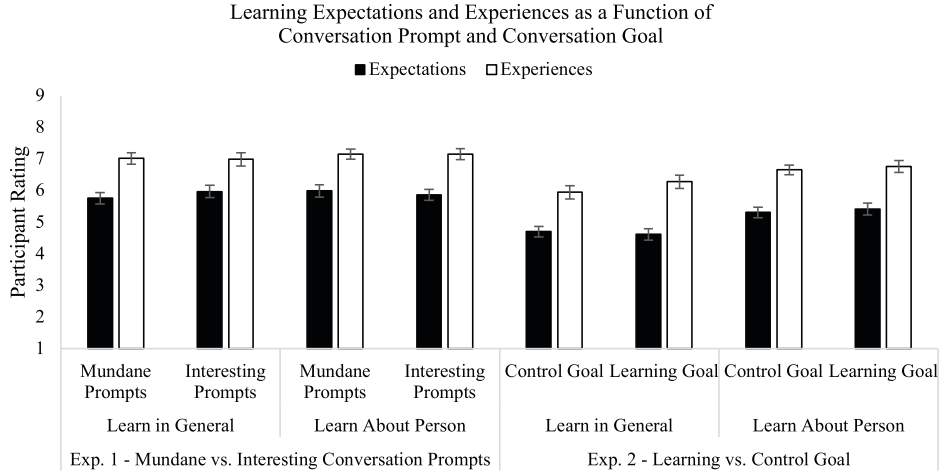

Fig. 1. Results of experiments [Exp.] 1 and 2. Participants' expectations of learning generally underestimated their reported experiences of learning, regardless of the type of conversation prompts (Exp. 1) and conversation goal (Exp. 2). Error bars represent ±1 SE.

and rate how much they believed the participants learned from their conversation. We altered participants' expectations text from the future tense to the past tense to match the experiences text and then asked raters to predict how much a participant learned based on each text description. Consistent with genuine learning from conversation, the raters identified more learning in descriptions of what participants actually learned ($M = 5.67$, SD = 1.25) than of what they expected to learn [$M = 4.39$, SD = 1.33; $b = 1.28$, $t(2{,}869) = 23.28$, $P < 0.001$]. Taken together, experiment 3 indicates that participants themselves reported learning more useful information in conversation than expected, they wrote more concrete information after conversations than before conversations, and separate raters thought people learned more when reading their reports from after the conversation than from before it.

Finally, experiment 3 also tested a plausible explanation for why people underestimate learning. Because people have direct access to what they know but not to what others know, people may think they have relatively little to learn from others compared to what others might have to learn from them. To test this possibility, participants in experiment 3 also reported how much they expected others to learn from the conversation. Inconsistent with this explanation, participants actually expected that they would learn more general information from their partner than their partner would learn from them [$b = 0.28$, $t(205) = 2.39$, $P = 0.018$]. Participants did not expect significant differences in how much they would learn about their partner compared to how much their partner would learn about them [$b = 0.15$, $t(205) = 1.43$, $P = 0.15$] (Fig. 2). We also observed no significant differences in text descriptions of what participants expected to learn from their partner compared to what their partner would learn from them in terms of the number of words generated [$M_{self} = 14.6$, SD = 11.1 vs. $M_{other} = 15.1$, SD = 12.0; $b = -0.54$, $t(205) = -0.73$, $P = 0.46$], how easy or difficult it was to generate the content [$M_{self} = 3.57$, SD = 2.88 vs. $M_{other} = 3.55$, SD = 2.93; $b = 0.02$, $t(205) = 0.12$, $P = 0.91$], or how confident participants were about the content they generated [$M_{self} = 8.40$, SD = 2.41 vs. $M_{other} = 8.38$, SD = 2.37; $b = 0.02$, $t(205) = 0.14$, $P = 0.89$]. Underestimating learning in conversation does not seem to stem from believing that there is relatively little to learn from strangers.

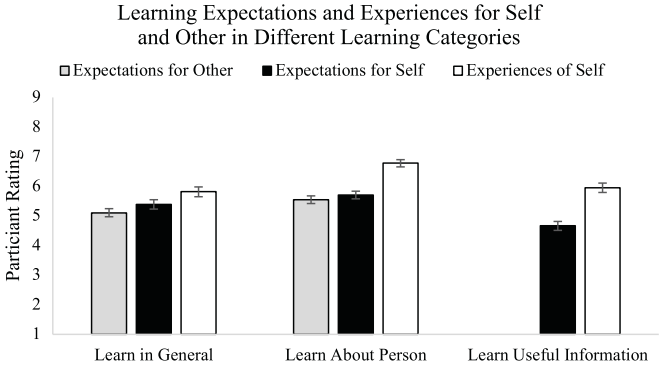

Fig. 2. Results of Exp. 3. Participants underestimated learning across different categories of learning. Participants expected to learn more general information than their partner and expected both parties to learn a similar amount about each other. Error bars represent ±1 SE.

Why Are Conversations with Strangers Surprisingly Informative?

The preceding experiments indicate that people underestimate how much they will learn in conversation and that this gap stems not from people being unmotivated to learn or thinking they have relatively little to learn from strangers. Instead, we hypothesize that people underestimate learning in conversation because of the inherent uncertainty of conversation. A conversation is dynamic, involving two people who can discuss a wide range of material, with no single person in complete control of the conversation's content. This makes it very difficult to bring to mind any certain details of how a conversation will unfold, and hence difficult to bring to mind any information about what one might learn. Because people tend to base their expectations on the information that comes most readily to mind (16), the conversation people are likely to imagine is going to contain systematically less information than their actual experience of a conversation. This could lead people to systematically underestimate how much they are likely to learn in an actual conversation to the extent that its contents are uncertain beforehand. We therefore predict that expectations about learning will be better calibrated when people are better able to anticipate the content of the conversation.

We tested this uncertainty explanation in the subsequent three experiments. In experiment 4, we compared expected vs. actual learning from conversation against learning in a context that involves more certainty: surfing the web. Like conversation, surfing the web offers tremendous opportunity to learn. Unlike

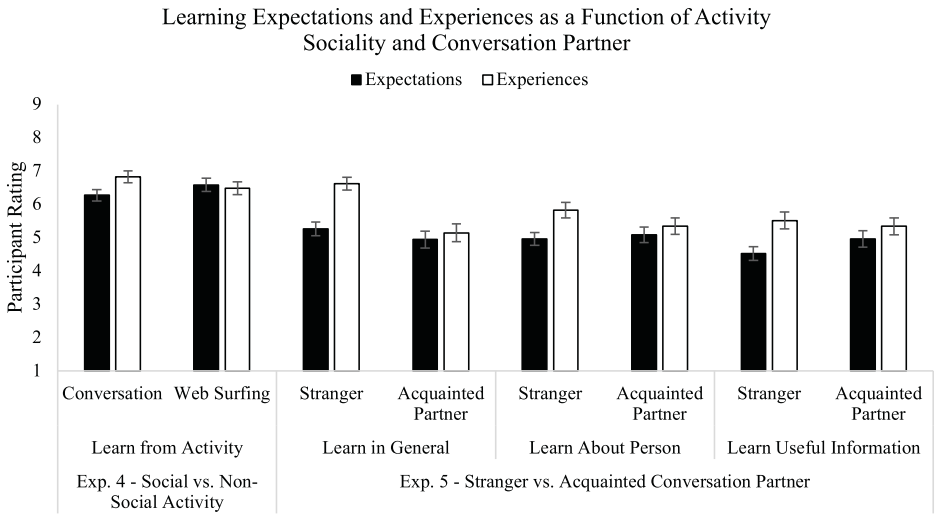

Fig. 3. Results of Exp. 4 and 5. Participants significantly underestimated learning from a social activity (conversation) but not from a nonsocial activity (web surfing; Exp. 4) and significantly underestimated learning from a conversation with a stranger but not with a person they knew (Exp. 5). Error bars represent ±1 SE.

conversation, it is easier to imagine what might be learned surfing the web because the user chooses the content and hence can anticipate more concretely what might be seen. We assigned participants to either spend 10 min talking with another randomly assigned participant or 10 min surfing the web, asking participants in both cases to use their time to learn interesting things. As shown in Fig. 3, participants' learning expectations were more miscalibrated in the conversation condition than in the web surfing condition [$b = 0.65$, $t(200) = 2.30$, $P = 0.023$]. Specifically, participants in the conversation condition significantly underestimated how much they would learn [$b = 0.54$, $t(101) = 2.70$, $P = 0.008$], whereas participants in the web surfing condition did not [$b = -0.10$, $t(99) = 0.52$, $P = 0.61$]. These results indicate that people do not always underestimate how much they are likely to learn, but rather are likely to do so when it is especially hard to know the details of what one might learn beforehand, such as in conversation.

Not all conversations, however, have the same degree of uncertainty about what might be learned. In experiment 5, we manipulated certainty about the conversation's content by varying whether people spoke with a stranger or with someone they knew relatively well. To do so, we recruited multiple pairs of closely acquainted dyads (friends, spouses, and family members) to each session and asked each participant to have two conversations: one with the acquainted person and one with a stranger (someone else's acquainted person). Participants first reported what they expected to learn from each conversation using the same items as in experiment 4 and then reported how much they actually learned after each conversation. As shown in Fig. 3, participants significantly underestimated how much they would learn from a conversation with a stranger [in general, $b = 0.86$, $t(103) = 4.27$, $P < 0.001$; other person, $b = 1.36$, $t(103) = 7.13$, $P < 0.001$; useful information, $b = 0.99$, $t(103) = 4.11$, $P < 0.001$] but did not significantly underestimate learning from their acquainted conversation partner ($|t|$s < 1.66, Ps > 0.10; interactions, $|t|$s > 1.8, Ps < 0.07).

Experiment 5 indicates that people are especially likely to underestimate learning when the conversation's content is especially uncertain, revealing information that cannot be anticipated before actually having the conversation. We test this role of uncertainty most directly in experiment 6. We recruited participants in unacquainted dyads to have a conversation over a videoconferencing platform and report how much they learned (*SI Appendix* has full details), and then we showed these conversations to observers, whom we asked to estimate how much the participants reported learning in the conversation. We manipulated whether the observers made these estimates before watching the video, when its content was uncertain, or after watching the video, when its content was completely known. Observers underestimated how much participants in the actual conversation reported learning to a greater extent when they predicted learning before watching the conversation than after watching the conversation (*SI Appendix*, Fig. S6). This difference in calibration was statistically significant for learning about the other person [$b = -0.49$, $t(418) = -3.24$, $P = 0.001$], was in a similar pattern but marginal for learning useful information [$b = -0.35$, $t(398) = -1.85$, $P = 0.06$], and was nonsignificant for learning general information [$b = -0.22$, $t(402) = -1.12$, $P = 0.26$]. Similarly, observers' estimates on some measures were less correlated with participants' ratings before watching the conversation than after watching the conversation [other person, $r_{before} = 0.04$ vs. $r_{after} = 0.19$; in general, $r_{before} = 0.02$ vs. $r_{after} = 0.23$; useful information: $r_{before} = -0.05$ vs. $r_{after} = 0.03$].

Finally, experiment 7 examined whether miscalibrated expectations of learning are distinct from miscalibrated expectations about the overall positive experience of conversation, and provided one more test of learning with a more objective measure. We manipulated the topic of conversation for US-based participants by either allowing them to have an unconstrained conversation about anything they liked (open-ended condition) or instructing them to have a more constrained conversation about the United States (US-focused condition). As a more objective measure of learning, we asked participants to list each piece of information they actually learned in the conversation. To measure expectations of learning, we asked participants before their conversation to report how many pieces of information they expected to learn. As shown in Fig. 4, participants significantly underestimated how many pieces of information they would learn in both the US-focused and the open-ended conditions, but did so significantly less in the US-focused condition ($b = 0.02$, $t = 2.07$, $P = 0.038$)*. The self-reported learning measures showed a similar interaction pattern [$b = 0.92$, $t(203) = 3.42$, $P < 0.001$], with

*The reported analysis uses the probability distribution gamma, which fit the data best. We preregistered a linear regression, which yielded a similar statistic [$b = 0.88$, $t(199.19) = 2.14$, $p = 0.03$].

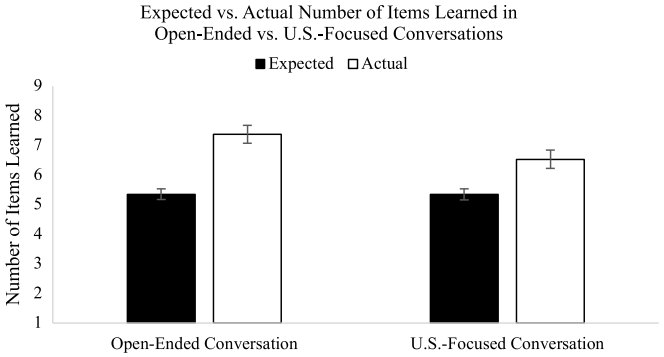

Fig. 4. Results of Exp. 7. Participants significantly underestimated the number of items they would learn from a conversation; this underestimation was larger for an open-ended conversation (*Left*) than for a conversation on a prespecified topic (*Right*). Error bars represent ±1 SE.

participants significantly underestimating learning in the open-ended condition [$b = -0.92$, $t(103) = -5.16$, $P < 0.001$] but not in the US-focused condition [$b = 0$, $t(100) = 0.00$, $P = 1$]. In contrast, participants' tendency to underestimate how much they would enjoy the conversation and like their partner did not differ between conditions ($|ts| < 1.4$), indicating that learning is a distinct outcome of conversation (*SI Appendix*, Fig. S7). In fact, participants in the constrained conversation reported learning less than participants in the open-ended condition [$b = -0.90$, $t(201) = -3.41$, $P < 0.001$], but they reported enjoying the conversation marginally more [$b = 0.45$, $t(201) = 1.88$, $P = 0.06$] and liking their partners significantly more [$b = 0.48$, $t(201) = 2.45$, $P = 0.015$] (*SI Appendix*, Fig. S7). Although existing research suggests that people's subjective sense of learning can be disconnected from actual learning [e.g., (17)], the results of experiment 7 suggest that they are aligned when learning from strangers in conversation (*SI Appendix* has an expanded discussion).

Discussion

Aristotle argued that "All [people] desire by nature to know," (4) but our experiments suggest that people may not fully understand what they can come to know from talking with other people. Decisions about whom to approach or avoid in daily life are based at least in part on the presumed value of interacting with another person, including how much will be learned in the interaction. Our experiments indicate that people consistently underestimate how much they would learn from strangers in conversation. Undervaluing learning does not stem from a belief that there is little to learn from strangers. In fact, our participants thought they would learn more from others than others would learn from them. Undervaluing learning is also not an invariant bias in judgment, as people were relatively well calibrated about learning from some activities (e.g., surfing the web) and with some conversation partners (e.g., closely acquainted people). Instead, undervaluing learning appears to stem from the uncertainty of conversation, such that people underestimated learning most when having open-ended conversations with strangers. Ironically, not knowing what could be learned in conversation may keep people from having the very experiences that would show them how much they can learn in conversation.

Learning is obviously not the only outcome of conversation. Existing research indicates that people also underestimate how positive the hedonic and social outcomes of conversations will be (5, 7, 12). Indeed, participants in our experiments also tended to underestimate how much they would enjoy their conversations and how much they would like their conversation partners. Although the underestimation of the instrumental value of learning is correlated with the underestimation of enjoyment ($r = 0.37$; range: 0.22 to 0.54) and liking ($r = 0.28$; range: 0.14 to 0.46), as might be expected, experiment 7 indicated that underestimating learning is not simply part of a more general tendency to underestimate all positive outcomes in conversation. We believe the hedonic value of conversation comes from the social dynamics of conversation that create a sense of connection with another person (such as responsiveness, disclosure, and reciprocity), whereas the value of learning in conversation comes from the content of the conversation itself.

One unanswered question is how a conversation's length affects expected and actual learning. In contrast to the consistent results we observed across experiments, London-area commuters in a field experiment on trains did not show a significant tendency to underestimate learning when asked to have a conversation with a stranger during their commute (18). These conversations, however, tended to be very short, with many being only a few minutes long. Indeed, the extent to which people underestimated learning was positively correlated with the reported duration of the conversation [$b = 0.04$, $t(94) = 3.80$, $P < 0.001$], suggesting that underestimating learning from conversation is dependent on conversation length. A supplemental experiment we conducted manipulating the duration of conversation found that when people knew how long the conversation would be, they underestimated learning from both a 5-min and a 20-min conversation, suggesting that expectations of conversation length may matter as well (*SI Appendix*). A full understanding of how the duration of conversation is, or is not, incorporated into expectations and experiences of conversation is an important topic for future research.

A second unanswered question is why people's expectations remain miscalibrated despite presumably having had many conversations throughout their lives and hence many opportunities to learn. One barrier to calibrated expectations may come from the sheer diversity of knowledge that could be learned, which makes generalizing from one conversation to another especially challenging. Another barrier is that social beliefs can be self-fulfilling, such that people find out what they can learn only from the conversations they actually have but don't find out how much they could have learned from the conversations they avoided (19). If people primarily engage in conversations with the people they expect to learn a lot from, then they will fail to learn how much they could have learned from someone they deemed uninteresting or uninformative. We would predict that more experience in open conversations with randomly selected people, rather than self-selected people, would lead to better calibrated expectations of learning in conversation. Without such experience, miscalibrated expectations about how much can be learned from other people may keep people from learning more in everyday life, frustrating their desire to know by keeping them from approaching a surprisingly informative source of knowledge.

Method and Materials

All procedures of these experiments were approved by the institutional review board of the University of Chicago.

General Materials, Method, and Analysis. Except where noted, all but experiment 6 used the following procedure.

Each participant was recruited individually and completed all measures in an online survey. Participants completed the preconversation questions before being introduced to their randomly assigned conversation partner (experiments

1, 2, and 4) or after being introduced to them (experiments 3, 6, and 7). Participants read that they would have a conversation with another participant in the experiment that would last roughly 10 min. Participants learned what the conversation topic would be; this was unconstrained except in experiment 1, which involved conversation prompts, and experiment 7, in which half of participants were asked to talk about the United States.

Learning expectations. Participants reported how much they expected to learn during the upcoming conversation on scales ranging from 1 (very little or not at all) to 9 (a lot or very). The learning-related questions varied slightly across experiments but generally asked about learning from the conversation or activity and learning about one's conversation partner. Participants in experiments 4 and 5 were also asked how much useful information they expected to learn.

Nonlearning expectations. Participants also reported expectations about hedonic and social outcomes of the conversation (on the same scales). The specific questions varied slightly across experiments but generally asked how much they expected to enjoy the conversation, like their conversation partner, and feel lucky about being paired with their conversation partner, as well as how interesting the conversation or activity would be (this measure was originally conceived as learning related, but across the studies, it was more consistent with the hedonic measures in factor analyses). In experiments 1 and 2, participants were also asked how complex they expected to find the other person to be. In experiment 3, participants were asked how difficult they expected it would be to carry on the conversation.

Conversation. After reporting their expectations, participants were asked to talk for roughly 10 min. The experimenter let the pair know when the conversation time was over and then separated the participants again to complete the postconversation survey.

Learning and nonlearning experiences. Participants reported their experiences on the same items they reported their expectations on before the conversation, phrased accordingly (e.g., "How much did you learn from the conversation?").

Demographics. Participants provided demographic information at the end of the experiment that varied slightly across experiments but generally included gender, age, level of education, native language, and level of English fluency.

Analysis. We used a linear mixed-effects model in all experiments to analyze survey responses with random effects for participant and for participant nested within pair. We used the R (20) packages lme4 (21) and lmerTest (22).

Experiment 1 (Mundane vs. Interesting Conversation Prompts). A version of the preregistration is available at https://aspredicted.org/blind.php?x=2qx2rv.

Sample. The final sample comprised 206 participants (133 female, 69 male, two genderqueer, two unreported; $M_{age} = 33.35$, SD = 13.71, two unreported), who were recruited at the Garfield Park Conservatory in Chicago and participated in exchange for a small gift. This sample comprised 102 complete pairs and two individuals whose partners' responses were excluded because they mistakenly had the conversation before completing the preconversation survey. We excluded four additional participants (two pairs) because the experimenter was unsure if they provided the correct condition instructions.

Procedure. Experiment 1 followed the general method with the following exceptions. Participants in the interesting prompts condition ($n = 102$) received the following prompts: "Tell me about an interesting place you've visited," "What are your hobbies?" and "Tell me about an interesting person you know or who you've met." Participants in the mundane prompts condition ($n = 104$) received the following prompts: "Tell me about what you do for a living," "How do you like to spend your free time?" and "Tell me about your family." In a supplemental survey ($n = 66$ participants recruited through Amazon's Mechanical Turk; 27 female, 39 male; $M_{age} = 36.72$, SD = 11.05), we confirmed that the interesting prompts were rated as more interesting than the mundane prompts [$M_{interesting} = 6.37$, SD = 1.35 vs. $M_{mundane} = 5.48$, SD = 1.51, on a 9-point scale; $t(65) = 5.43$, $P < 0.001$].

Participants then reported their expectations of learning in the upcoming conversation: "How much do you think you'll learn from the conversation?" and "How much do you think you'll learn about the other person?" Nonlearning items included the following: "How much do you think you'll enjoy the conversation?" "How much do you think you'll like the other person?" "How lucky do you think you'll feel for being paired up with this particular person?" "How complex do you think you'll find the other person to be?" "How interesting do you think you'll find the other person to be?" "How interesting do you think the other person will find you to be?"

Each participant then received a sheet of paper with the conversation prompts. After the conversation, participants reported their experiences.

Participants were asked at the end whether they had known their conversation partner. Excluding the one pair that knew each other does not meaningfully alter results. Participants could also respond to an optional, open-ended question about what they had learned from participating in this experiment.

Experiment 2 (Learning vs. Nonlearning Goal). A version of the preregistration is available at https://aspredicted.org/blind.php?x=sr8qd7.

Sample. The final sample included 198 individuals (122 female, 73 male, two nonbinary, one unreported; $M_{age} = 21.15$, SD = 4.74, two unreported) recruited through two university laboratories and several campus locations (97% were university students), who completed the experiment in exchange for $5. This yielded a final sample of 98 complete pairs plus two individuals whose partners' responses were excluded because they completed the measures out of order. One additional pair was excluded for the same reason.

Procedure. Experiment 2 followed the general method with the following exceptions. We assigned each pair to one of two goal conditions. Both participants in each pair of the control condition were told, "Simply try to have a pleasant conversation, in the same way that you would if you were having a conversation with a stranger outside of the lab." One participant in each pair of the learning condition was told to "try to use the conversation to learn from the other person," while the other participant in each pair received the control instructions. Participants reported their expectations using the same questions in experiment 1, engaged in conversation for 10 min, and then reported their experiences.

We asked participants to describe what they learned over the course of the conversation in an open-ended response and then to rate the extent to which they learned interesting general knowledge, useful information, how to do something (e.g., a skill), interesting biographical information about the other person, interesting personal information about the other person, and a self-specified "other" category on scales ranging from 1 (did not learn at all) to 9 (learned a lot). Participants then answered a general attention check question, were given the option to describe what they thought the experiment was about, and reported demographics.

Experiment 3 (Self vs. Other).

Sample. The final sample included 205 individuals (88 female, 111 male, one self-identified, one nonbinary, three unreported; $M_{age} = 39.31$, SD = 16.49, one unreported) from one university laboratory ($n = 14$), one community laboratory ($n = 58$), and a public park ($n = 133$). Participants in the laboratories participated for monetary compensation, while participants in the public park received a small gift. This yielded a sample of 102 pairs of strangers and one individual whose partner did not complete all surveys. We excluded four additional participants from all analyses: one who did not follow instructions, one who did not provide coherent responses to open-ended questions, and one person whose partner had to leave before finishing the experiment.

Procedure. Experiment 3 followed the general method with the following exceptions. Before the conversation, we asked participants to think about their upcoming conversation and write "some things you might learn from the other person over the course of the conversation" and "some things that the other person might learn from you over the course of the conversation" (order counterbalanced).

After writing each description, participants rated how confident they were about each description on scales ranging from 0 (not at all confident) to 10 (very confident) and how difficult it had been for them to generate each description on scales ranging from 0 (not at all difficult) to 10 (very difficult).

Participants reported how much they expected to learn about their partner ("Over the course of the conversation, how much do you think you'll learn about the other person?"), learn general information ("Over the course of the conversation, how much general information [not about the other person] do you think you'll learn?"), and learn useful information ("Over the course of the conversation, how much useful information do you think you will learn?"). Participants then reported their expectations about their partner's learning using the first two items from above, phrased accordingly. Finally, participants reported how lucky they expected to feel for being paired with this particular person and how difficult they expected it to be to carry on the conversation.

After the conversation, participants wrote what they had learned during the conversation, as well as what they thought their partner had learned (in a

counterbalanced order), and then reported their experiences in the conversation. We manipulated the order in which participants answered the learning and nonlearning items both before and after the conversation such that some participants answered the learning-related questions first while others answered them second.

Coding abstractness. Participants wrote four text descriptions: what they expected to learn, what they expected their partner to learn, what they actually learned, and what they thought their partner actually learned. Two research assistants unfamiliar with our hypothesis rated each of the resulting 820 text responses on its level of abstractness on a scale ranging from 1 (very concrete/detailed) to 6 (very abstract/general) following these instructions:

> We would like you to rate how abstract (general) vs. concrete (detailed) their response is in terms of what will be learned or what has been learned. By very abstract or general, we mean a response that is very broad and vague. It will describe very broad categories of people, places, events, or concepts. By very concrete or detailed, we mean a response that is very specific and precise. It will describe very specific individuals, places, events, or concepts.

The coders rated the first 24 responses with the first author, discussing any discrepancies, to ensure understanding of the instructions. An interrater reliability analysis (23) on the full dataset revealed substantial agreement between coders ($k = 0.68$).

Observer ratings.

Sample. The final sample included 341 individuals (146 female, 192 male, one nonbinary, two unreported; $M_{age} = 36.99$, SD = 11.28), who participated through Amazon's Mechanical Turk in exchange for monetary compensation. We excluded additional people before participating if they misidentified a simple image on the screen and/or if their Internet Protocol address placed them outside the United States. We excluded additional participants if their response to a simple, open-ended question indicated that they were not following the instructions or were not fluent in English ($n = 40$), if they failed an attention check ($n = 58$), if they failed an instruction check ($n = 13$), or if they reported English proficiency below that of a native speaker ($n = 2$).

Stimuli. Each participant in experiment 3 provided free-text responses describing expectations vs. experiences of learning for themselves and their partner, but observers evaluated only the self-responses. In order to mask the critical difference between descriptions of expectations vs. experiences, we edited the preconversation expectations from future tense to past tense. We removed any identifying information to preserve participants' anonymity. We excluded text descriptions from 13 participants whose expectations could not be edited without sacrificing the original meaning (e.g., "I don't know") or were difficult to interpret. This yielded a final sample of two descriptions from each of 192 participants.

Procedure. We first presented raters with a brief description of experiment 3, describing participation either in a laboratory setting or in a public venue depending on the participant's location, and then asked raters several questions to verify comprehension. Raters then rated both descriptions from five participants in a randomized order (presented as responses from 10 individuals). For each description, raters reported how much they thought the participant learned from the conversation on a scale ranging from 1 (very little) to 9 (a lot). Each text response was evaluated by 10 raters.

Experiment 4 (Social vs. Nonsocial Task). A version of the preregistration is available at https://aspredicted.org/blind.php?x=4kp39u.

Sample. The final sample included 198 participants (116 female, 78 male, three self-selected "other," one unreported; $M_{age} = 31.01$, SD = 13.77, three unreported), recruited at three public attractions in a large US city, who participated in exchange for a small gift. We excluded an additional three participants due to technical issues, three participants recorded with the incorrect condition or participant number, and two participants whose conversation was interrupted by a phone call.

Procedure. We randomly assigned participants to either have a conversation or to surf the web for 10 min. Participants learned that they would be assigned to one of these two conditions, being asked to "try to learn some interesting things" in both cases. Before learning their assignment, we asked participants to imagine that they were assigned to each condition (in a random order) and then report how much they expected to learn in each condition, how interesting they expected each condition to be, and how much they would enjoy each condition.

Participants then learned of their condition assignment and reported how happy they felt on a scale ranging from 1 (Not happy. I would have much preferred surfing the web [having a conversation]) to 9 (Very happy. I much prefer having a conversation [surfing the web]).

Participants then spent 10 min engaging in their assigned activity, being reminded to "try to learn some interesting things" before starting. After 10 min, participants reported their experiences of their assigned activity, using the same three measures they used to report their expectations, and again reported how happy they were with their condition assignment. Participants could then optionally report what they learned during their experience, as well as what they learned from participating in the experiment.

Experiment 5 (Strangers vs. Acquainted Partners). A version of the preregistration is available at https://aspredicted.org/blind.php?x=LGS_3QD.

Sample. The final sample included 103 participants (48 female, 52 male, three nonbinary; $M_{age} = 26.53$, SD = 11.38) recruited through the subject pool of a midwestern US university. We excluded an additional four participants due to technical issues and seven who may have responded to the incorrect condition.

Procedure. The experiment followed the general method. Participation took place using videoconferencing software. Each participant was asked to bring an acquainted person with them to a small group session, during which participants had one conversation with the acquainted person they came with and one conversation with a stranger (who was acquainted with someone else in the session).

Experiment 6 (Observers). A version of the preregistration is available at https://aspredicted.org/blind.php?x=gj7g42.

Sample. The final sample included 441 US-based participants (222 female, 208 male, eight nonbinary, one agender, one unreported; $M_{age} = 34.11$, SD = 12.29), who participated through Prolific for monetary compensation. We excluded additional participants whose responses to a simple, open-ended question indicated not following instructions or not being fluent in English ($n = 6$), who failed an attention or comprehension check ($n = 5$), who were flagged by Qualtrics as potential bots ($n = 3$), or who were using a virtual private network to mask their location ($n = 1$).

Materials. Observers evaluated conversations recorded as part of a separate experiment in which unacquainted pairs of participants ($n = 200$) engaged in a 10-min conversation over videoconferencing software. The participants were randomly assigned to discuss whatever they wished (unconstrained condition; $n = 100$), or one person in each pair was assigned to generate three to five topics for discussion (constrained condition; $n = 100$) (*SI Appendix* has additional details). We used 89 recordings from this experiment as our stimuli (the remaining 11 were incomplete due to poor internet connectivity or had poor video or sound quality).

Procedure. Observers read a description of the original experiment, and were told, "After the conversation, the participants reported their experiences in the conversation by answering a number of survey questions. Each participant answered these questions privately." Each observer was assigned to watch one randomly selected video conversation. Each video was watched by at least four observers. If the participants were in the constrained condition, observers also saw the conversation topics generated by one person in the pair.

Either before ($n = 217$) or after ($n = 224$) watching the video, observers were asked to estimate the participants' ratings of participants' own learning and nonlearning experiences using the same measures as experiment 3. After watching the video, all observers also rated their own learning experiences of watching the conversation on the same measures, tailored to their own condition (e.g., "How lucky do you feel that you watched the conversation of this particular pair of participants [and not a different pair]?").

Experiment 7 (Open-Ended vs. US-Focused Conversation). A version of the preregistration is available at https://aspredicted.org/blind.php?x=ZWH_NXX.

Sample. The final sample included 203 participants (134 female, 57 male, 10 nonbinary, two genderfluid; $M_{age} = 28.54$, SD = 10.90) recruited through the subject pools at two US university laboratories. We excluded four additional pairs ($n = 8$) because at least one conversation partner was not from the United States, five participants due to technical issues, and five participants who provided incomplete data.

Procedure. The experiment followed the general method using videoconferencing software. Each pair was randomly assigned to either talk about whatever they liked (open-ended condition) or to focus on the United States (constrained condition). Before the conversation, participants were informed that they would type a note about each new thing they learned, and they estimated how many of these notes they would write. After the conversation, participants typed a note about each new thing they learned. Participants also estimated their partner's learning from the conversation, both before and after the conversations.

Data, Materials, and Software Availability. Participant response data, analysis scripts, and study materials have been deposited in Open Science Framework (https://osf.io/ytber/) (24). All other study data are included in the article and/or *SI Appendix*.

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